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| *Exhibit No.:* | |
| *Issue:* | *Rate of Return* |
| *Witness:* | *Matthew J. Barnes* |
| *Sponsoring Party:* | *MoPSC Staff* |
| *Type of Exhibit:* | *Direct Testimony* |
| *Case No.:* | *GR-2006-0387* |
| *Date Testimony Prepared:* | *September 13, 2006* |

# MISSOURI PUBLIC SERVICE COMMISSION

# UTILITY SERVICES DIVISION

# DIRECT TESTIMONY

# OF

# MATTHEW J. BARNES

# ATMOS ENERGY CORPORATION

# CASE NO. GR-2006-0387

**Jefferson City, Missouri**
***September 2006***

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

| | | |
|---|---|---|
| In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Consolidate Rates and Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company. | ) ) ) ) | Case No. GR-2006-0387 |

AFFIDAVIT OF MATTHEW J. BARNES

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

Matthew J. Barnes, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Direct Testimony in question and answer form, consisting of 19 pages to be presented in the above case; that the answers in the foregoing Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

Matthew J. Barnes

Subscribed and sworn to before me this 8th day of September 2006.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
County of Cole
My Commission Exp. 07/01/2008

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# DIRECT TESTIMONY OF

# MATTHEW J. BARNES

# ATMOS ENERGY CORPORATION

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**DIRECT TESTIMONY**

**OF**

**MATTHEW J. BARNES**

**ATMOS ENERGY CORPORATION**

**CASE NO. GR-2006-0387**

Q. Please state your name.

A. My name is Matthew J. Barnes.

Q. Please state your business address.

A. My business address is P.O. Box 360, Jefferson City, Missouri, 65102.

Q. What is your present occupation?

A. I am employed as a Utility Regulatory Auditor III for the Missouri Public Service Commission (Commission). I accepted the position of Utility Regulatory Auditor I in June 2003 and have since been promoted.

Q. Were you employed before you joined the Commission's Staff (Staff)?

A. Yes, I was employed by the Missouri Department of Natural Resources (MDNR). Prior to MDNR I was employed by the Missouri Department of Conservation as an Auditor Aide.

Q. What is your educational background?

A. I earned a Bachelor of Science degree in Business Administration with an emphasis in Accounting from Columbia College in December 2002. I earned a Masters in Business Administration with an emphasis in Accounting from William Woods University in May 2005.

Q. Have you filed testimony in other cases before this Commission?

A. Yes. I filed Supplemental Direct Testimony in BPS Telephone Company Case No. TC-2002-1076, Rebuttal Testimony in Sprint Nextel Case No. IO-2006-0086, Rebuttal Testimony in Alltel Missouri Inc. Case No. TM-2006-0272, and Direct and Rebuttal Testimony in KCP&L Case No. ER-2006-0314. The issue I covered in BPS Telephone Company Case No. TC-2002-1076 was rate of return. This case was settled. The issues I covered in Alltel Missouri Inc. Case No. TM-2006-0272 and Sprint Nextel Case No. IO-2006-0086 was the spin-off of their regulated landline operations into a new separate company. I analyzed indicative credit rating reports from the three major credit rating agencies (Standard & Poor's, Moody's, and Fitch) that discussed the potential credit rating, a reasonable dividend payout ratio and cash flows to the new spin-off companies. I then used the indicative credit rating reports and compared the potential credit rating, dividend payout ratio, and cash flows of the spin-off companies to a group of similar telephone companies. These two cases were presented to the Commission and discussed during an on-the-record presentation. Both cases were approved by the Commission. The issue I covered in KCP&L Case No. ER-2006-0314 was rate-of-return. This case is still pending.

Q. Have you participated in other rate cases in the past?

A. Yes. I participated in AmerenUE Case No. GR-2003-0517, Aquila, Inc. Case No. ER-2004-0034, Empire ER-2004-0570, and Missouri American Water, Case No. WR-2003-0500. I was involved in preparing the schedules and review of testimony for the department manager and Auditor IV concerning rate of return.

Q. Have you made recommendations in any other cases before this Commission?

A. Yes, I have made recommendations on finance, merger and acquisition cases before this Commission.

Q. Have you attended any schools, conferences or seminars specific to utility finance and utility regulation?

A. Yes. I attended The Rate Case Process in Missouri presented by Staff of the Missouri Public Service Commission in March 2005. I have also attended the Financial Research Institute seminars in 2003 and 2004 that covered topics such as rate of return, restructuring of electric utility companies and the future operations of utility companies.

Q. What is the purpose of your testimony in this case?

A. I present the Staff's recommendation to the Commission of a fair and reasonable rate of return for the Missouri jurisdictional gas utility rate base of Atmos Energy Corporation (Atmos or Company).

Q. Have you prepared a written analysis of the cost of capital for Atmos?

A. Yes. I am sponsoring a study entitled "An Analysis of the Cost of Capital for Atmos Energy Corporation, Case No. GR-2006-0387" consisting of 21 schedules which are attached to this direct testimony (see Schedule 1 for a list of these schedules).

## EXECUTIVE SUMMARY

Q. Please provide an executive summary of your testimony.

A. I present the Staff's recommendation that the Commission authorize an overall rate of return (ROR) of 7.12 percent to 7.46 percent for Atmos. This rate-of-return recommendation is based on a recommended return on common equity of 8.59 percent to

9.39 percent applied to Atmos' June 30, 2006, common equity ratio of 42.41 percent. The recommendation is driven by my comparable company analysis using the discounted cash flow (DCF) model. I believe the DCF model is the most reliable model available.

I used an embedded-cost-of-long-term-debt of 6.03 percent based on Atmos' embedded-cost-of-long-term-debt provided in response to Data Request 0068.

I used Atmos' actual consolidated capital structure, which includes all of Atmos' operations, as of June 30, 2006 as the basis for the Staff's capital structure recommendation. I included the amount of Atmos' non-regulated debt in developing the Staff's consolidated capital structure recommendation.

Q. How did you determine the Staff's recommended cost of common equity?

A. I determined the Staff's recommended cost of common equity by applying the DCF model to a comparable group of natural gas distribution companies. I then evaluated a number of factors to test the reasonableness of this recommendation. A complete and detailed explanation of the Staff's recommended cost of common equity starts on page 13, line 10 of this testimony.

**LEGAL PRINCIPLES**

Q. What legal principles do you understand constitute the basis for the assessment of the justness and reasonableness of rate-of-return recommendations?

A. I understand that the *Bluefield Water Works and Improvement Company* (1923) (*Bluefield*) and the *Hope Natural Gas Company* (1944) (*Hope*) cases have been cited as the two most influential cases for the legal framework to determine a fair and reasonable rate of return.

Q. What do you understand to be the teachings of the *Bluefield* case?

A. In the Bluefield case the Supreme Court ruled that a fair return would be:

1. A return "generally being made at the same time" in that "general part of the country;"

2. A return achieved by other companies with "corresponding risks and uncertainties;" and

3. A return "sufficient to assure confidence in the financial soundness of the utility."

The Court specifically stated:

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

Q. What do you understand to be the teachings of the *Hope* case?

A. In the *Hope* case, the Court stated that:

> The rate-making process . . . , *i.e.*, the fixing of "just and reasonable" rates, involves a balancing of the investor and the consumer interests. Thus we stated . . . that "regulation does not insure that the business shall produce net revenues" . . . it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock . . . . By that standard the return to the equity owner should

> be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

The *Hope* case restates the concept of comparable returns to include those achieved by other enterprises that have "corresponding risks." The Supreme Court also noted in this case that regulation does not guarantee profits to a utility company.

Q. Do you have any further comments on the use of cost of capital models to determine a fair rate of return?

A. Yes. See Schedule A.

## CURRENT ECONOMIC CONDITIONS

Q. What are the main points of the current capital and economic environment that the Commission should consider in determining a reasonable authorized return on common equity (ROE) for Atmos?

A. The Federal Reserve (Fed) has been steadily raising the Fed Funds rate by 25 basis points at every Federal Open Market Committee (FOMC) meeting since June 30, 2004. This began after the Fed had kept the Fed Funds Rate at a 46-year low of 1.00 percent for a full year. The Fed has now raised the Fed Funds Rate seventeen consecutive times to its current level of 5.25 percent. According to a June 30, 2006, issue of the *Wall Street Journal*:

> "The extent and timing of any additional" rate increases "will depend on the evolution of the outlook for both inflation and economic growth," the Fed said in a statement. By contrast, the Fed's last statement, on May 10, said "some further" rate increases "may yet be needed."
>
> The language shift reflects Fed officials' decreased confidence that they know now what they'll do next, given how much rates already

> have risen, its view that the economy is slowing and its concern over an expected rise in inflation that it nonetheless hopes is temporary. The new language doesn't rule out another rate increase, but give the Fed added flexibility to base its decision more on coming economic data than on any previous guidance it gave to markets.
>
> The Dow Jones Industrial Average, which was up about 80 points before the statement was released, soared to close 217.24 points higher, a gain of about 2%, its best day in more than three years.

Q. What has happened to long-term interest rates since the Fed started to increase the Fed Funds rate from 1.00 percent?

A. Long-term interest rates have finally started to respond to the Fed's monetary policy tightening. However, at this time it would be premature to label the increase in long-term interest rates as a trend.

Q. How have utility bond yields responded to the tightening of U.S. monetary policy?

A. A review of Schedules 5-1 and 5-3 shows that average utility bond yields fell to an average annual yield of 5.39 percent during June 2005, which was the lowest yield in the past 26 years. Utility bond yields have since increased to an average annual yield of 6.37 percent in July 2006.

Q. Would you explain the changes in utility bond yields and Thirty-Year U.S. Treasury yields in a little more detail?

A. Cost of capital changes for utilities are closely reflected in the yields on public utility bonds and yields on Thirty-Year U.S. Treasury Bonds (see attached Schedules 5-1 and 5-2). Schedule 5-3, attached to this direct testimony, shows how closely the Mergent's "Public Utility Bond Yields" have followed the yields of Thirty-Year U.S. Treasury Bonds during the period from 1980 to the present. The average spread for this period between these

two composite indices has been 151 basis points, with the spread ranging from a low of 80 basis points to a high of 304 basis points (see attached Schedule 5-4). Although there may be times when utility bond yield changes may lag the yield changes in the Thirty-Year U.S. Treasury Bond, these spread parameters show just how tightly correlated utilities' cost of capital is with the level of interest rates on long-term treasuries. For a detail explanation of historical economic conditions please see Schedule B.

Q. What is the significance of the current economic conditions to Atmos and what conclusions should the Commission draw from it?

A. The significance of the current economic conditions to Atmos is that yields on public utility bonds and yields on Thirty-year Treasury bonds are low by recent historical standards. An example of recent historical standards is the double digit yields for long-term U.S. Government bonds and corporate bonds from the late 1970's to the mid 1980's. A lower interest rate environment means a lower cost of capital and a higher interest rate environment means a higher cost of capital for a utility. The current yields on U.S. Government bonds and corporate bonds are now more normal by historical standards. The Commission should take the lower and more normal yields on U.S. Government and corporate bonds into consideration when authorizing a rate of return for Atmos. For a history of long-term investment grade Baa (Moody's equivalent of S&P's BBB credit rating) corporate bond yields please see Schedule 5-5.

**ECONOMIC PROJECTIONS**

Q. Do you have any information on economic projections?

A. Yes. See Schedule C for projections on inflation, interest rates and gross domestic product (GDP).

## BUSINESS OPERATIONS OF ATMOS ENERGY CORPORATION

Q. Please describe Atmos' business operations.

A. The following is from Atmos' website: www.atmosenergy.com:

> Atmos Energy, the largest pure natural gas distributor in the United States, delivers natural gas to 3.2 million residential, commercial, industrial, agricultural and public-authority customers. Our regulated utility services are provided to more than 1,500 communities in 12 states. For the fiscal year ended September 30, 2005, our utility operations contributed about 60 percent of our consolidated net income.
>
> **Growing and Working For You**
>
> Atmos Energy has grown from 279,000 customers in 1983 mainly by acquiring utility assets. Our most recent acquisition was the distribution and pipeline operations of TXU Gas Company, the largest natural gas utility in Texas. Atmos Energy is also the largest natural gas distributor in Louisiana and Mississippi. Because of the geographical breadth of our operations, we benefit from diversity in economic conditions, weather patterns, gas supplies and regulatory climates.
>
> **Efficient and Low Cost**
>
> Atmos Energy is known as one of the most efficient natural gas utilities in the industry because of constant cost management. Our employees keep productivity at industry-leading levels. We serve 730 utility customers per utility employee, as compared with an average of 511 customers per employee served by our peer group. Our utility operation and maintenance expense of $110 per customer in fiscal 2005 is also lower than our peer group average of $209 per customer. Our gains in efficiency help us better serve our customers, but never at the expense of safety or service.

**Nonutility Operations, Too**

Atmos Energy's nonutility operations are ranked as one of the leading domestic mid-tier gas marketers. They market natural gas supplies to industrial customers and municipalities in 22 states, arrange for gas transportation and management services and manage company-owned gas storage and pipeline assets, including one of the largest intrastate natural gas pipelines in Texas.

Atmos' total operating revenues were $335,333,000 for the nine months ended June 30, 2006, versus $340,323,000 for the nine months ended June 30, 2005. These 2006 revenues resulted in an overall net income applicable to common stock of $141,678,000 and earnings per share (EPS) of $1.75 as compared to the nine months ended June 30, 2005 net income applicable to common stock of $152,587,000 and an EPS of $1.94. These revenues and net incomes were generated from total assets of $5,616,477,000 for the period ended June 30, 2006, and $5,653,527,000 for the period ended June 30, 2005. These figures were taken from Atmos' Form 10Q SEC filing for the period ended June 30, 2006 from Atmos' company website at www.atmosenergy.com.

Q. What are Atmos' current credit ratings?

A. Atmos' current Standard & Poor's Corporation's (S&P) corporate credit rating is "BBB" with a Stable outlook, which is two notches above non-investment grade; i.e., junk, status. Atmos' current Moody's corporate credit rating is Baa3 as of March 22, 2006, which is equivalent to S&P's BBB- credit rating. Atmos' current Fitch corporate credit rating is BBB+.

Q. Do you have historical financial information on Atmos?

A. Yes. Schedules 7 and 8 present historical capital structures and selected financial ratios from 2001 through 2005 for Atmos. Atmos' consolidated common equity

ratio has ranged from a high of 56.65 percent to a low of 42.29 percent from 2001 through 2005. Atmos' consolidated company earned ROE for the last five years has been a low of 7.60 percent in 2004 to a high of 10.40 percent in 2002. Atmos' consolidated company earned 2005 ROE was 8.50 percent. In a June 16, 2006, report in *The Value Line Investment Survey: Ratings & Reports*, Value Line estimates that Atmos' consolidated company projected ROE will be 8.5 percent for 2006 and 9.0 percent for 2007.

Atmos' consolidated company historical funds from operations (FFO) interest coverage ratios for the previous five years has ranged from a low of 3.2 times in 2005, to a high of 4.2 times in 2003. Atmos' consolidated company FFO to average total debt ratios for the previous five years has ranged from a low of 14 percent in 2005, to a high of 23 percent in 2003.

**DETERMINATION OF THE COST OF CAPITAL**

Q. How do you determine a utility company's cost of capital?

A. The total dollars of capital for the utility company are determined as of a specific point in time. This total dollar amount is then apportioned into each specific capital component, i.e. common equity, long-term debt, preferred stock and short-term debt. A weighted cost for each capital component is determined by multiplying each capital component ratio by the appropriate embedded cost or by the estimated cost of common equity component. The individual weighted costs are summed to arrive at a total weighted cost of capital. This total weighted average cost of capital (WACC) is synonymous with the fair rate of return for the utility company.

Q. Why is a total WACC synonymous with a fair rate of return?

A. From a financial viewpoint, a company employs different forms of capital to support or fund the assets of the company. Each different form of capital has a cost and these costs are weighted proportionately to fund each dollar invested in the assets.

Assuming that the various forms of capital are within a reasonable balance and are costed correctly, the resulting total WACC, when applied to rate base, will provide the funds necessary to service the various forms of capital. Thus, the total WACC corresponds to a fair rate of return for the utility company.

**CAPITAL STRUCTURE AND EMBEDDED COSTS**

Q. What capital structure did you use for Atmos?

A. The capital structure I have used for this case is Atmos' capital structure on a consolidated basis, as of June 30, 2006. Schedule 9 presents Atmos' capital structure and associated capital ratios. The resulting capital structure consists of 42.41 percent common stock equity, 55.64 percent long-term debt, and 1.95 percent short-term debt.

The amount of long-term debt outstanding on June 30, 2006 was $2,184,082,000 and includes current maturities due within one year. The amount of long-term debt in the capital structure is shown on Schedule 10 attached to this direct testimony.

Atmos' short-term debt balance exceeded Construction Work In Progress (CWIP). The difference between short-term debt and CWIP is included in the capital structure because it is assumed that CWIP will eventually be funded with long-term debt. The amount of average short-term debt outstanding on June 30, 2006 was $158,672,472. This amount is based on a 13 month average as provided by the Company in response to Data Request 0068. The amount of CWIP outstanding on June 30, 2006 was $82,053,972 as provided in Atmos'

monthly financial report for June 2006 sent to Staff on August 22, 2006. The amount of short-term debt that Staff will include in the capital structure is $76,618,500 (Short-term debt minus CWIP).

Q. What was the embedded-cost-of-short-term-debt for Atmos as of June 30, 2006?

A. The embedded-cost-of-short-term-debt for Atmos as of June 30, 2006 was 6.44 percent as provided by the Company in response to Data Request 0068.

Q. What was the embedded-cost-of-long-term-debt for Atmos as of June 30, 2006?

A. The embedded-cost-of-long-term-debt for Atmos as of June 30, 2006, was 6.03 percent.

**COST OF COMMON EQUITY**

Q. How did you analyze those factors by which the cost of common equity for Atmos may be determined?

A. In order to calculate the cost of common equity for Atmos, I performed a comparable company analysis of eight companies. I have selected the DCF model (explained in detail in Schedule D) as the primary tool to determine the cost of common equity for Atmos, but I also used the CAPM (explained in detail in Schedule E) to check the reasonableness of the DCF results.

Q. Can you directly analyze Atmos' cost of common equity?

A. Yes. I can directly analyze Atmos' cost of common equity because it is publicly traded and it does pay a dividend.

Q. How did you analyze Atmos' cost of common equity?

A. I decided to do an analysis of the cost of common equity for a comparable group of natural gas distribution companies because these companies have similar gas operations that are comparable to Atmos.

Q. How did you determine which companies were comparable gas utility companies?

A. I first relied on the *Edward Jones Natural Gas Industry Summary* dated March 31, 2006 for the current classification system, which specifies companies that they consider to be natural gas distribution companies. Because Atmos is a natural gas distribution utility, this helps ensure the selection of companies that are similar in risk profile to that of Atmos' business operations. Schedule 12 presents a list of the 14 gas distribution utility companies that Edward Jones currently classifies as natural gas distribution companies. I then applied the following criteria to these 14 companies in order to select my ultimate proxy group:

1. Stock publicly traded: This criterion did not eliminate any companies;
2. Information printed in Value Line: This criterion didn't eliminate any companies;
3. Ten years of data available: This criterion eliminated three additional companies;
4. At least investment grade credit rating: This eliminated one company;
5. Two sources for projected growth available with one of those being from Value Line: This criterion eliminated one additional company.
6. No Missouri Operations: This eliminated one additional company.

This resulted in a group of eight publicly-traded gas utility companies. The comparables are listed on Schedule 13.

Q. How did you determine the cost of common equity of each of the comparables?

A. I calculated a DCF cost of common equity for each of the comparables. The first step was to calculate a growth rate. I reviewed the actual dividends per share (DPS), earnings per share (EPS), and book values per share (BVPS) as well as projected EPS growth rates for the comparables. Schedule 14-1 lists the annual compound growth rates for DPS, EPS, and BVPS for the past ten years. Schedule 14-2 lists the annual compound growth rates for DPS, EPS, and BVPS for the past five years. Schedule 14-3 presents the averages of the growth rates shown in Schedules 14-1 and 14-2. Schedule 15 presents the average historical growth rates and the projected growth rates for the comparables. The projected EPS growth rates were obtained from three outside sources; I/B/E/S Inc.'s *Institutional Brokers Estimate System*, Standard & Poor's Corporation's *Earnings Guide*, and *The Value Line Investment Survey: Ratings and Reports*. The three projected EPS growth rates were averaged to develop an average projected growth rate of 4.75 percent, which was averaged with the historical growth rates to produce a historical and projected growth rate of 4.36 percent. I chose to rely on the historical and projected growth rates as my low end growth rate and the projected growth rate as my high end growth rate to arrive at a growth rate range for the comparables of 4.35 percent to 5.15 percent.

The next step was to calculate an expected yield for each of the comparables. The yield term of the DCF model is calculated by dividing the amount of DPS expected to be paid over the next twelve months by the market price per share of the firm's stock. Even though a strict technical application of the model requires the use of a current spot market price, I have chosen to use a monthly average market price for each of the comparables. I

used this averaging technique to minimize the effects on the dividend yield which can occur due to daily volatility in the stock market. Schedule 16 presents the average high / low stock price for the period of April 1, 2006, through July 31, 2006, for each comparable. Column 1 of Schedule 17 indicates the expected dividend for each comparable over the next 12 months as projected by *The Value Line Investment Survey: Ratings & Reports*, June 16, 2006. Column 3 of Schedule 17 shows the projected dividend yield for each of the comparables. The dividend yield for each comparable was averaged to calculate the projected dividend yield for the comparables of 4.24 percent.

As illustrated in Column 5 of Schedule 17, the average cost of common equity based on the projected dividend yield added to the average of historical and projected growth is 8.60. Giving weight to both the projected and historical growth rates, my DCF proxy group cost of common equity estimation is 8.59 percent to 9.39 percent.

Q. How did you verify the reasonableness of your DCF model-derived cost of common equity for the comparable company group?

A. I performed a CAPM cost-of-common-equity analysis for the comparables.

Q. What did you use for your risk-free rate?

A. For purposes of this analysis, the risk-free rate I used was the yield on Thirty-Year U.S. Treasury Bonds. I determined the appropriate rate to be the average yield for the month of July 2006. The average yield of 5.13 percent was provided on the St. Louis Federal Reserve website.

For the second variable, beta, I researched Value Line in order to find the betas for my comparable group of companies. Schedule 18 contains the appropriate betas for the comparables.

The final term of the CAPM is the market risk premium ($R_m$ - $R_f$). The market risk premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk-free investment.

Q. Please explain your application of the CAPM using historical return differences.

A. The first risk premium used was based on the long-term, arithmetic average from 1926 to 2005, which was 6.50 percent. The second risk premium was based on the long-term, geometric average from 1926 to 2005, which was determined to be 4.90 percent. The third risk premium was based on a short-term, geometric average from 1996 to 2005, which was determined to be 1.48 percent. These risk premiums were taken from Ibbotson Associates, Inc.'s *Stocks, Bonds, Bills, and Inflation: 2006 Yearbook.*

Schedule 18 presents the CAPM analysis of the comparables using historical actual return spreads to estimate the required equity risk premium. The CAPM analysis produces an estimated cost of common equity of 10.49 percent for the comparables when using the long-term arithmetic average risk premium period; using the long-term geometric average produces an estimated cost of common equity of 9.17 percent and using the short-term risk premium period produces an estimated cost of common equity of 6.35 percent. The long-term arithmetic average risk premium CAPM results would support a higher cost of common equity. The long-term geometric average risk premium CAPM results supports a cost of common equity similar to what is currently produced in performing a DCF analysis.

Q. Would you summarize your cost of common equity analysis for Atmos?

A. I performed a DCF and CAPM cost of common equity analysis on a group of eight comparable companies. The results are summarized below.

| | DCF | CAPM (Historical) |
|---|---|---|
| Comparable Companies | 8.59% - 9.39% | Historical - 10.49%; 9.17%; 6.35% |

Q. Based on your analysis, what is your recommended return on common equity for Atmos in this proceeding?

A. I recommend a return on common equity in the range of 8.59 percent to 9.39 percent based on the results of my comparable-company-DCF analysis.

## RATE OF RETURN FOR ATMOS ENERGY CORPORATION

Q. How are the returns you developed for each capital component used in the ratemaking approach you have adopted for Atmos?

A. The cost of service ratemaking method was adopted in this case. This approach develops the public utility's revenue requirement. The cost of service (revenue requirement) is based on the following components: operating costs, rate base and a return allowed on the rate base (see Schedule 20).

It is my responsibility to calculate and recommend a rate of return that should be authorized on the Missouri jurisdictional gas utility rate base of Atmos. Under the cost of service ratemaking approach, a weighted cost of capital in the range of 7.12 to 7.46 percent was developed for Atmos' gas utility operations (see Schedule 21). This rate was calculated by applying an embedded-cost-of-long-term-debt of 6.03 percent, an embedded-cost-of-short-term-debt of 6.44 percent and a cost of common equity range of 8.59 percent to 9.39 percent to a capital structure consisting of 55.64 percent long-term debt, 1.95 percent short-term debt and 42.41 percent common equity. Therefore, from a financial prospective I am recommending that Atmos' gas utility operations be allowed to earn a return on its original cost rate base in the range of 7.12 to 7.46 percent.

It is my expert opinion that, through my analysis I have developed a fair and reasonable return, which, when applied to Atmos' Missouri jurisdictional rate base, will allow Atmos the opportunity to earn the revenue requirement developed in this rate case.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

**MATTHEW J. BARNES**

**TESTIMONY SCHEDULES A THROUGH E**

**ATMOS ENERGY CORPORATION**

**CASE NO. GR-2006-0387**

Q. Is your recommendation of the cost of common equity consistent with a fair rate of return on common equity?

A. Yes. It is my expert opinion that my recommendation as to the case of common equity is consistent with a fair rate of return on common equity. It is generally recognized that authorizing an allowed return on common equity based on a utility's cost of common equity is consistent with a fair rate of return. It is for this very reason that the discounted cash flow (DCF) model is widely recognized as an appropriate model to utilize in arriving at a reasonable recommended return on equity that should be authorized for a utility. The concept underlying the DCF model is to determine the cost of common equity capital to the utility, which reflects the current economic and capital market environment. For example, a company may achieve a return on common equity that is higher than its cost of common equity. This situation will tend to increase the share price. However, this does not mean that this past achieved return is the barometer for what would be a fair authorized return in the context of a rate case. It is the lower cost of capital that should be recognized as a fair authorized return. If a utility continues to be allowed a return on common equity that is not reflective of today's current low-cost-of-capital environment, then this will result in the possibility of excessive returns.

The authorized return should provide a fair and reasonable return to the investors of the company, while ensuring that ratepayers do not support excessive earnings that could result from the utility's monopolistic powers. However, this fair and reasonable rate does not necessarily guarantee revenues or the continued financial integrity of the utility.

It should be noted that a reasonable return may vary over time as economic conditions, such as the level of interest rates, and business conditions change. Therefore, the past, present and projected economic and business conditions must be analyzed in order to calculate a fair and reasonable rate of return.

Q. Please discuss the historical economic conditions in which Atmos has operated.

A. One of the most commonly accepted indicators of economic conditions is the discount rate set by the Federal Reserve Board (Federal Reserve or Fed). The Federal Reserve tries to achieve its monetary policy objectives by controlling the discount rate (the interest rate charged by the Federal Reserve for loans of reserves to depository institutions) and the Federal (Fed) Funds Rate (the overnight lending rate between banks). However, recently the Fed Funds Rate has become the primary means for the Federal Reserve to achieve its monetary policy, and the discount rate has become more of a symbolic interest rate. This explains why the Federal Reserve's decisions now focus on the Fed Funds rate and this is reflected in the discussion of interest rates. It should also be noted that on January 9, 2003, the Federal Reserve changed the administration of the discount window. Under the changed administration of the discount window an eligible institution does not need to exhaust other sources of funds before coming to the discount window, nor are there restrictions on the purposes for which the borrower can use primary credit. This explains why the discount rate jumped from 0.75 percent to 2.25 percent on January 9, 2003, when the Fed Funds rate didn't change. Therefore, discount rates before January 9, 2003, are not comparable to discount rates after January 9, 2003.

At the end of 1982, the U.S. economy was in the early stages of an economic expansion, following the longest post-World War II recession. This economic expansion began when the Federal Reserve reduced the discount rate seven times in the second half of 1982 in an attempt to stimulate the economy. This reduction in the discount rate led to a reduction in the prime interest rate (the rate charged by banks on short-term loans to

borrowers with high credit ratings) from 16.50 percent in June 1982, to 11.50 percent in December 1982. The economic expansion continued for approximately eight years until July 1990, when the economy entered into a recession.

In December 1990, the Federal Reserve responded to the slumping economy by lowering the discount rate to 6.50 percent (see Schedules 2-1 and 2-2). Over the next year-and-a-half, the Federal Reserve lowered the discount rate another six times to a low of 3.00 percent, which had the effect of lowering the prime interest rate to 6.00 percent (see Schedules 3-1 and 3-2).

In 1993, perhaps the most important factor for the U.S. economy was the passage of the North American Free Trade Agreement (NAFTA). NAFTA created a free trade zone consisting of the United States, Canada and Mexico. The rate of economic growth for the fourth quarter of 1993 was one the Federal Reserve believed could not be sustained without experiencing higher inflation. In the first quarter of 1994, the Federal Reserve took steps to try to restrict the economy by increasing interest rates. As a result, on March 24, 1994, the prime interest rate increased to 6.25 percent. On April 18, 1994, the Federal Reserve announced its intention to raise its targeted interest rates, which resulted in the prime interest rate increasing to 6.75 percent. The Federal Reserve took action again on May 17, 1994, by raising the discount rate to 3.50 percent. The Federal Reserve took three additional restrictive monetary actions, with the last occurring on February 1, 1995. These actions raised the discount rate to 5.25 percent, and in turn, banks raised the prime interest rate to 9.00 percent.

The Federal Reserve then reversed its policy in late 1995 by lowering its target for the Fed Funds Rate by 0.25 percentage points on two different occasions. This had the effect of

lowering the prime interest rate to 8.50 percent. On January 31, 1996, the Federal Reserve lowered the discount rate to a rate of 5.00 percent.

The actions of the Federal Reserve from 1996 through 2000 were primarily focused on keeping the level of inflation under control, and it was successful. The inflation rate, as measured by the *Consumer Price Index - All Urban Consumers* (CPI), had never been higher than 3.70 percent during this period. The increase in CPI stood at 4.20 percent for the twelve months ending May 31, 2006 (see attached Schedules 4-1, 4-2 and 6).

The unemployment rate was 4.60 percent as of May 2006 (see Schedule 6), which is low by historical standards. A lower unemployment rate probably provides the Fed with some comfort to continue to raise the Fed Funds rate if it believes it is needed to contain inflation.

The combination of low inflation and low unemployment had led to a prosperous economy from 1993 through 2000 as evidenced by the fact that real gross domestic product (GDP) of the United States increased every quarter during this period. However, GDP actually declined for the first three quarters of 2001, indicating there was a contraction in the economy during these three quarters. This contraction of GDP for more than two quarters in a row meets the textbook definition of a recession. According to the National Bureau of Economic Research, the recession began in March of 2001 and ended eight months later. Since the recession ended, GDP had been low up until the second quarter of 2003, but since the second quarter of 2003, GDP has been fairly healthy. GDP grew at a rate of 5.60 percent for the second quarter of 2006 (see attached Schedule 6).

Q. What are the inflationary estimations and expectations for 2006 through 2008?

A. *The Value Line Investment Survey: Selection & Opinion*, August 25, 2006, estimates inflation to be 3.4 percent for 2006, 2.5 percent for 2007 and 2.3 percent for 2008. The Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2007-2016,* issued January 2006, states that inflation is expected to be 2.8 percent for 2006, 2.2 percent for 2007 and 2.2 percent for 2008 (see attached Schedule 6).

Q. What are the interest rate forecasts for 2006, 2007 and 2008 and the current interest rates?

A. Short-term interest rates, those measured by three-month U.S. Treasury Bills, are estimated to be 4.9 percent in 2006, 5.0 percent in 2007 and 4.8 percent in 2008 according to Value Line's predictions. Value Line expects the long-term Thirty-Year U.S. Treasury Bonds to average 5.1 percent in 2006, 5.4 percent in 2007 and 5.5 percent in 2008. The current rate for three-month U.S. Treasury Bills was 4.95 percent as of July 1, 2006, as noted on the St. Louis Federal Reserve website, http://research.stlouisfed.org/fred2/series/TB3MS/22. The current rate for Thirty-Year U.S. Treasury Bonds was 4.87 percent as of September 1, 2006, as noted on the CBS MarketWatch website, http://www.marketwatch.com/tools/marketsummary/default.asp?site=mktw.

Q. What are the growth estimates and expectations for real GDP?

A. GDP is a benchmark utilized by the Commerce Department to measure economic growth within the U.S. borders. Real GDP is measured by the actual GDP, adjusted for inflation. Value Line stated that real GDP growth is expected to increase by 3.4 percent in 2006, 2.6 percent in 2007 and 3.1 percent in 2008. The Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2007-2016*, stated that real GDP is expected to

increase by 3.6 percent in 2006, 3.4 percent in 2007 and 3.1 percent in 2008 (see attached Schedule 6).

Q. Please summarize the expectations of the economic conditions for the next few years.

A. In summary, when combining the previously mentioned sources, inflation is expected to be in the range of 2.2 to 3.4 percent, increase in real GDP in the range of 2.6 to 3.6 percent and long-term interest rates are expected to range from 5.1 to 5.5 percent.

Selected excerpts from *The Value Line Investment Survey: Selection & Opinion,* July 14, 2006, follow:

> We think we'll get the proverbial soft landing. Following the slower rate of GDP growth indicated for the just-ended quarter, we would expect the economy to grow at a similar rate in the third and the fourth quarters. Growth is likely to stay in that range, or even ease a bit further in the first half of 2007 as the effects of higher interest rates and near-record oil prices are increasingly felt within the economy.
>
> The Federal Reserve may not have much room to maneuver. The Fed now has raised interest rates at 17 Federal Open Market Committee meetings in a row, dating back to June 2004, taking rates from 1.00% to 5.25% in the process. However, those hikes were enacted in a period of strengthening business activity. Now, growth is slowing, and the Fed must be careful not to raise rates too high and risk bringing on a recession. Hopefully, inflation, which heads the list of Fed concerns, will ease in the current half in response to slowing economic growth.
>
> We would pay close attention to the signals coming out of the Fed. Recent months have seen a number of Federal Reserve officials warn of rising inflationary pressures. Those warnings typically have preceded rate increases. Should those officials now begin to suggest that slowing GDP growth may be starting to reduce the pricing pressures within the economy, the chances for a relaxation in Fed monetary policies would increase.
>
> Investor concerns remain high. Not only is the market worried about the Fed and inflation, but it is also fearful about increasing tensions with North Korea and Iran.

Q. Please describe the DCF model.

A. The DCF model is a market-oriented approach for deriving the cost of common equity. The cost of common equity calculated from the DCF model is inherently capable of attracting capital. This results from the theory that security prices adjust continually over time, so that an equilibrium price exists and the stock is neither undervalued nor overvalued. It can also be stated that stock prices continually fluctuate to reflect the required and expected return for the investor.

The constant-growth form of the DCF model was used in this analysis. This model relies upon the fact that a company's common stock price is dependent upon the expected cash dividends and upon cash flows received through capital gains or losses that result from stock price changes. The interest rate which discounts the sum of the future expected cash flows to the current market price of the common stock is the calculated cost of common equity. This can be expressed algebraically as:

$$\text{Present Price} = \underset{\text{Discounted by k}}{\text{Expected Dividends}} + \underset{\text{Discounted by k}}{\text{Expected Price in 1 year}} \qquad (1)$$

where k equals the cost of equity. Since the expected price of a stock in one year is equal to the present price multiplied by one plus the growth rate, equation (1) can be restated as:

$$\text{Present Price} = \frac{\text{Expected Dividends}}{(1+k)} + \frac{\text{Present Price } (1+g)}{(1+k)} \qquad (2)$$

where g equals the growth rate and k equals the cost of equity. Letting the present price equal $P_0$ and expected dividends equal $D_1$, the equation appears as:

$$P_0 = \frac{D_1}{(1+k)} + \frac{P_0(1+g)}{(1+k)} \qquad (3)$$

The cost of equity equation may also be algebraically represented as:

$$k = \frac{D_1}{P_0} + g \qquad (4)$$

Thus, the cost of common stock equity, k, is equal to the expected dividend yield ($D_1/P_0$) plus the expected growth in dividends (g) continuously summed into the future. The growth in dividends and implied growth in earnings will be reflected in the current price. Therefore, this model also recognizes the potential of capital gains or losses associated with owning a share of common stock.

The discounted cash flow method is a continuous stock valuation model. The DCF theory is based on the following assumptions:

1. Market equilibrium;
2. Perpetual life of the company;
3. Constant payout ratio;
4. Payout of less than 100% earnings;
5. Constant price/earnings ratio;
6. Constant growth in cash dividends;
7. Stability in interest rates over time;
8. Stability in required rates of return over time; and
9. Stability in earned returns over time.

Flowing from these, it is further assumed that an investor's growth horizon is unlimited and that earnings, book values and market prices grow hand-in-hand. Although the entire list of the above assumptions is rarely met, the DCF model is a reasonable working model describing an actual investor's expectations and resulting behaviors.

Q. Please describe the CAPM.

A. The CAPM describes the relationship between a security's investment risk and its market rate of return. This relationship identifies the rate of return which investors expect a security to earn so that its market return is comparable with the market returns earned by other securities that have similar risk. The general form of the CAPM is as follows:

$$k = R_f + \beta\ (R_m - R_f)$$

where:

$k$ = the expected return on equity for a specific security;
$R_f$ = the risk-free rate;
$\beta$ = beta; and
$R_m - R_f$ = the market risk premium.

The first term of the CAPM is the risk-free rate ($R_f$). The risk-free rate reflects the level of return that can be achieved without accepting any risk. In reality, there is no such risk-free asset, but it is generally represented by U.S. Treasury securities.

The second term of the CAPM is beta ($\beta$). Beta is an indicator of a security's investment risk. It represents the relative movement and relative risk between a particular security and the market as a whole (where beta for the market equals 1.00). Securities with betas greater than 1.00 exhibit greater volatility than do securities with betas less than 1.00. This causes a higher beta security to be less desirable to a risk-averse investor and therefore requires a higher return in order to attract investor capital away from a lower beta security.

The final term of the CAPM is the market risk premium ($R_m - R_f$). The market risk premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk-free investment.

# AN ANALYSIS OF THE COST OF CAPITAL

# FOR

# ATMOS ENERGY CORPORATION

# CASE NO. GR-2006-0387

# SCHEDULES


**BY**

**MATTHEW J. BARNES**

**UTILITY SERVICES DIVISION**

**MISSOURI PUBLIC SERVICE COMMISSION**


**SEPTEMBER 2006**

**Atmos Energy Corporation**
**GR-2006-0387**

**List of Schedules**

**Atmos Energy Corporation**
**GR-2006-0387**

## Federal Reserve Discount Rates Changes and Federal Reserve Funds Rates Changes

| Date | Federal Reserve Discount Rate | Federal Reserve Funds Rate | |
|---|---|---|---|
| 07/19/82 | 11.50% | | |
| 07/31/82 | 11.00% | | |
| 08/14/82 | 10.50% | | |
| 08/26/82 | 10.00% | | |
| 10/10/82 | 9.50% | | |
| 11/20/82 | 9.00% | | |
| 12/14/82 | 8.50% | | |
| 01/01/83 | 8.50% | | |
| 12/31/83 | 8.50% | | |
| 04/09/84 | 9.00% | | |
| 11/21/84 | 8.50% | | |
| 12/24/84 | 8.00% | | |
| 05/20/85 | 7.50% | | |
| 03/07/86 | 7.00% | | |
| 04/21/86 | 6.50% | | |
| 07/11/86 | 6.00% | | |
| 08/21/86 | 5.50% | | |
| 09/04/87 | 6.00% | | |
| 08/09/88 | 6.50% | | |
| 02/24/89 | 7.00% | | |
| 07/13/90 | | 8.00% | * |
| 10/29/90 | | 7.75% | |
| 11/13/90 | | 7.50% | |
| 12/07/90 | | 7.25% | |
| 12/18/90 | | 7.00% | |
| 12/19/90 | 6.50% | | |
| 01/09/91 | | 6.75% | |
| 02/01/91 | 6.00% | 6.25% | |
| 03/08/91 | | 6.00% | |
| 04/30/91 | 5.50% | 5.75% | |
| 08/06/91 | | 5.50% | |
| 09/13/91 | 5.00% | 5.25% | |
| 10/31/91 | | 5.00% | |
| 11/06/91 | 4.50% | 4.75% | |
| 12/06/91 | | 4.50% | |
| 12/20/91 | 3.50% | 4.00% | |
| 04/09/92 | | 3.75% | |
| 07/02/92 | 3.00% | 3.25% | |
| 09/04/92 | | 3.00% | |
| 01/01/93 | | | |
| 12/31/93 | No Changes | No Changes | |
| 02/04/94 | | 3.25% | |
| 03/22/94 | | 3.50% | |
| 04/18/94 | | 3.75% | |
| 05/17/94 | 3.50% | 4.25% | |
| 08/16/94 | 4.00% | 4.75% | |
| 11/15/94 | 4.75% | 5.50% | |
| 02/01/95 | 5.25% | 6.00% | |
| 07/06/95 | | 5.75% | |
| 12/19/95 | | 5.50% | |
| 01/31/96 | 5.00% | 5.25% | |
| 03/25/97 | | 5.50% | |
| 12/12/97 | 5.00% | | |
| 01/09/98 | 5.00% | | |
| 03/06/98 | 5.00% | | |
| 09/29/98 | | 5.25% | |
| 10/15/98 | 4.75% | 5.00% | |
| 11/17/98 | 4.50% | 4.75% | |
| 06/30/99 | 4.50% | 5.00% | |
| 08/24/99 | 4.75% | 5.25% | |
| 11/16/99 | 5.00% | 5.50% | |
| 02/02/00 | 5.25% | 5.75% | |
| 03/21/00 | 5.50% | 6.00% | |
| 05/19/00 | 6.00% | 6.50% | |
| 01/03/01 | 5.75% | 6.00% | |
| 01/04/01 | 5.50% | 6.00% | |
| 01/31/01 | 5.00% | 5.50% | |
| 03/20/01 | 4.50% | 5.00% | |
| 04/18/01 | 4.00% | 4.50% | |
| 05/15/01 | 3.50% | 4.00% | |
| 06/27/01 | 3.25% | 3.75% | |
| 08/21/01 | 3.00% | 3.50% | |
| 09/17/01 | 2.50% | 3.00% | |
| 10/02/01 | 2.00% | 2.50% | |
| 11/06/01 | 1.50% | 2.00% | |
| 12/11/01 | 1.25% | 1.75% | |
| 11/06/02 | 0.75% | 1.25% | |
| 01/09/03 | 2.25%** | 1.25% | |
| 06/25/03 | 2.00% | 1.00% | |
| 06/30/04 | 2.25% | 1.25% | |
| 08/10/04 | 2.50% | 1.50% | |
| 09/21/04 | 2.75% | 1.75% | |
| 11/10/04 | 3.00% | 2.00% | |
| 12/14/04 | 3.25% | 2.25% | |
| 02/02/05 | 3.50% | 2.50% | |
| 03/22/05 | 3.75% | 2.75% | |
| 05/03/05 | 4.00% | 3.00% | |
| 06/30/05 | 4.25% | 3.25% | |
| 08/09/05 | 4.50% | 3.50% | |
| 09/20/05 | 4.75% | 3.75% | |
| 11/01/05 | 5.00% | 4.00% | |
| 12/13/05 | 5.25% | 4.25% | |
| 01/31/06 | 5.50% | 4.50% | |
| 03/28/06 | 5.75% | 4.75% | |
| 05/10/06 | 6.00% | 5.00% | |
| 06/29/06 | 6.25% | 5.25% | |

* Staff began tracking the Federal Funds Rate.
**Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incomparability of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

Source:

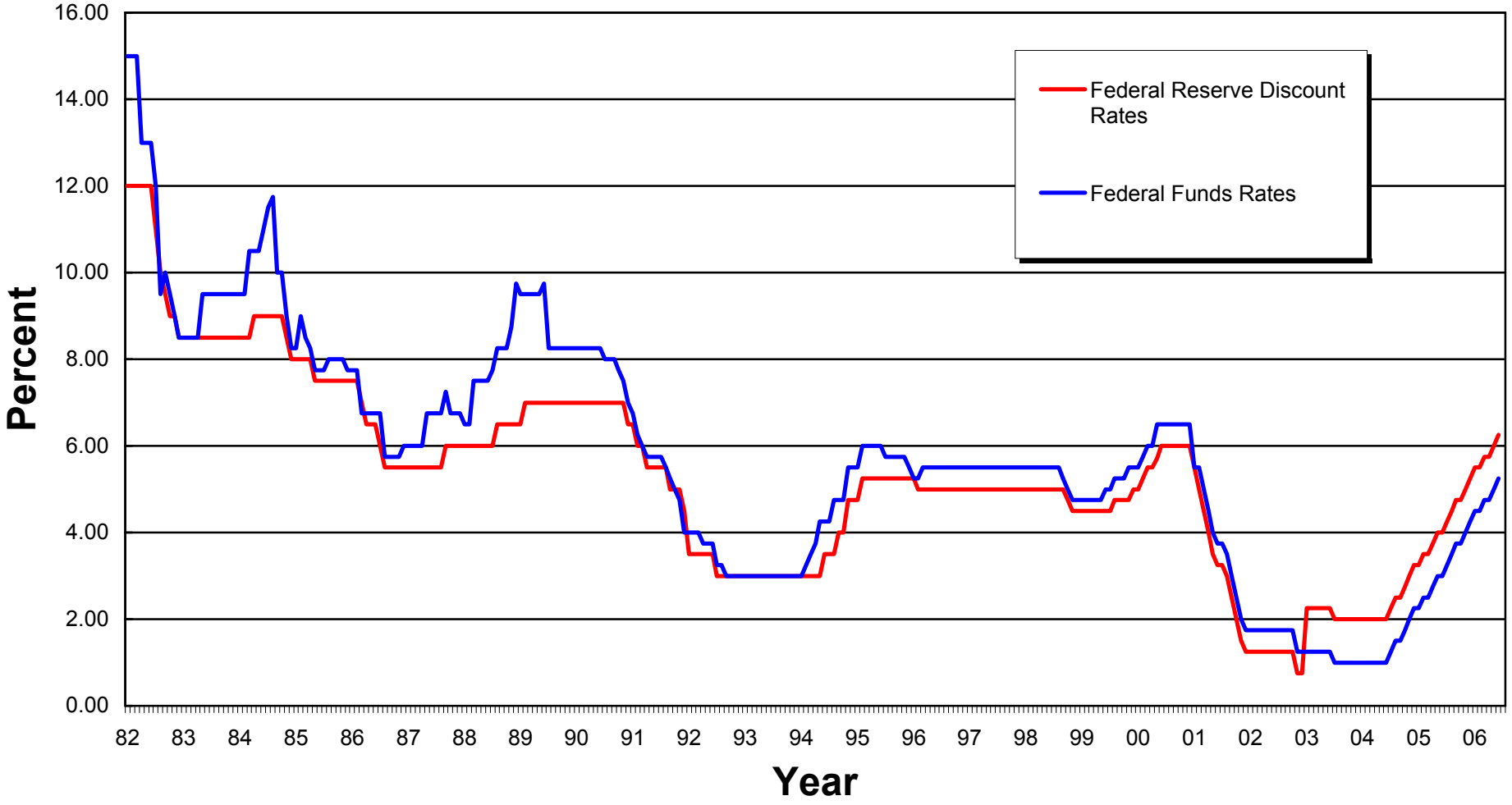
| | |
|---|---|
| Federal Reserve Discount rate | http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html |
| Federal Reserve Funds rate | http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html |

Note: Interest rates as of December 31 for each year are underlined.

**Atmos Energy Corporation**
**GR-2006-0387**

# Federal Reserve Discount Rates and Federal Funds Rates

1982 - 2006




Schedule 2-2

**SCHEDULE 2-2**

**Atmos Energy Corporation**
**GR-2006-0387**

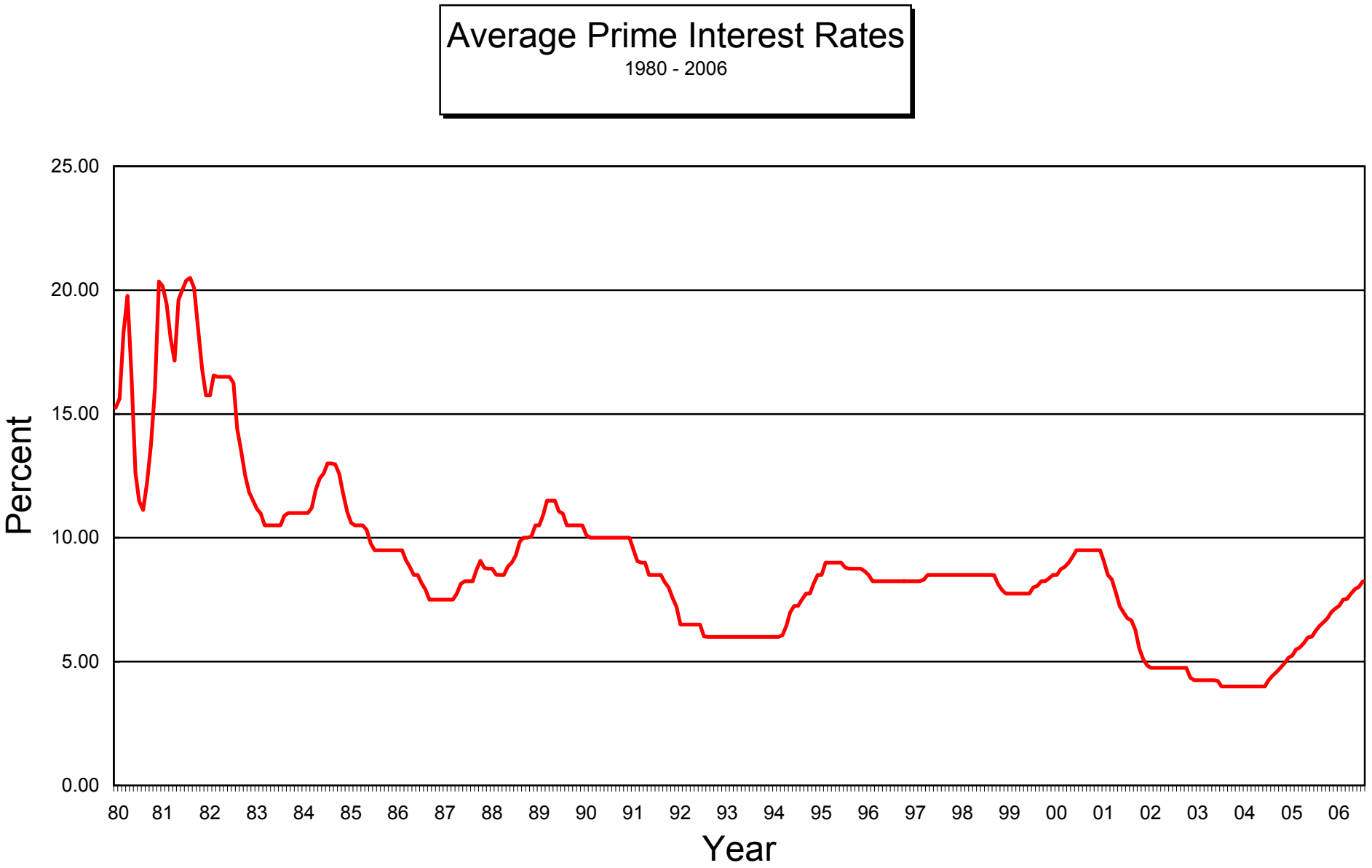
## Average Prime Interest Rates

| Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan 1980 | 15.25 | Jan 1984 | 11.00 | Jan 1988 | 8.75 | Jan 1992 | 6.50 | Jan 1996 | 8.50 | Jan 2000 | 8.50 | Jan 2004 | 4.00 |
| Feb | 15.63 | Feb | 11.00 | Feb | 8.51 | Feb | 6.50 | Feb | 8.25 | Feb | 8.73 | Feb | 4.00 |
| Mar | 18.31 | Mar | 11.21 | Mar | 8.50 | Mar | 6.50 | Mar | 8.25 | Mar | 8.83 | Mar | 4.00 |
| Apr | 19.77 | Apr | 11.93 | Apr | 8.50 | Apr | 6.50 | Apr | 8.25 | Apr | 9.00 | Apr | 4.00 |
| May | 16.57 | May | 12.39 | May | 8.84 | May | 6.50 | May | 8.25 | May | 9.24 | May | 4.00 |
| Jun | 12.63 | Jun | 12.60 | Jun | 9.00 | Jun | 6.50 | Jun | 8.25 | Jun | 9.50 | Jun | 4.00 |
| Jul | 11.48 | Jul | 13.00 | Jul | 9.29 | Jul | 6.02 | Jul | 8.25 | Jul | 9.50 | Jul | 4.25 |
| Aug | 11.12 | Aug | 13.00 | Aug | 9.84 | Aug | 6.00 | Aug | 8.25 | Aug | 9.50 | Aug | 4.43 |
| Sep | 12.23 | Sep | 12.97 | Sep | 10.00 | Sep | 6.00 | Sep | 8.25 | Sep | 9.50 | Sep | 4.58 |
| Oct | 13.79 | Oct | 12.58 | Oct | 10.00 | Oct | 6.00 | Oct | 8.25 | Oct | 9.50 | Oct | 4.75 |
| Nov | 16.06 | Nov | 11.77 | Nov | 10.05 | Nov | 6.00 | Nov | 8.25 | Nov | 9.50 | Nov | 4.93 |
| Dec | 20.35 | Dec | 11.06 | Dec | 10.50 | Dec | 6.00 | Dec | 8.25 | Dec | 9.50 | Dec | 5.15 |
| Jan 1981 | 20.16 | Jan 1985 | 10.61 | Jan 1989 | 10.50 | Jan 1993 | 6.00 | Jan 1997 | 8.26 | Jan 2001 | 9.05 | Jan 2005 | 5.25 |
| Feb | 19.43 | Feb | 10.50 | Feb | 10.93 | Feb | 6.00 | Feb | 8.25 | Feb | 8.50 | Feb | 5.49 |
| Mar | 18.05 | Mar | 10.50 | Mar | 11.50 | Mar | 6.00 | Mar | 8.30 | Mar | 8.32 | Mar | 5.58 |
| Apr | 17.15 | Apr | 10.50 | Apr | 11.50 | Apr | 6.00 | Apr | 8.50 | Apr | 7.80 | Apr | 5.75 |
| May | 19.61 | May | 10.31 | May | 11.50 | May | 6.00 | May | 8.50 | May | 7.24 | May | 5.98 |
| Jun | 20.03 | Jun | 9.78 | Jun | 11.07 | Jun | 6.00 | Jun | 8.50 | Jun | 6.98 | Jun | 6.01 |
| Jul | 20.39 | Jul | 9.50 | Jul | 10.98 | Jul | 6.00 | Jul | 8.50 | Jul | 6.75 | Jul | 6.25 |
| Aug | 20.50 | Aug | 9.50 | Aug | 10.50 | Aug | 6.00 | Aug | 8.50 | Aug | 6.67 | Aug | 6.44 |
| Sep | 20.08 | Sep | 9.50 | Sep | 10.50 | Sep | 6.00 | Sep | 8.50 | Sep | 6.28 | Sep | 6.59 |
| Oct | 18.45 | Oct | 9.50 | Oct | 10.50 | Oct | 6.00 | Oct | 8.50 | Oct | 5.53 | Oct | 6.75 |
| Nov | 16.84 | Nov | 9.50 | Nov | 10.50 | Nov | 6.00 | Nov | 8.50 | Nov | 5.10 | Nov | 7.00 |
| Dec | 15.75 | Dec | 9.50 | Dec | 10.50 | Dec | 6.00 | Dec | 8.50 | Dec | 4.84 | Dec | 7.15 |
| Jan 1982 | 15.75 | Jan 1986 | 9.50 | Jan 1990 | 10.11 | Jan 1994 | 6.00 | Jan 1998 | 8.50 | Jan 2002 | 4.75 | Jan 2006 | 7.26 |
| Feb | 16.56 | Feb | 9.50 | Feb | 10.00 | Feb | 6.00 | Feb | 8.50 | Feb | 4.75 | Feb | 7.50 |
| Mar | 16.50 | Mar | 9.10 | Mar | 10.00 | Mar | 6.06 | Mar | 8.50 | Mar | 4.75 | Mar | 7.53 |
| Apr | 16.50 | Apr | 8.83 | Apr | 10.00 | Apr | 6.45 | Apr | 8.50 | Apr | 4.75 | Apr | 7.75 |
| May | 16.50 | May | 8.50 | May | 10.00 | May | 6.99 | May | 8.50 | May | 4.75 | May | 7.93 |
| Jun | 16.50 | Jun | 8.50 | Jun | 10.00 | Jun | 7.25 | Jun | 8.50 | Jun | 4.75 | June | 8.02 |
| Jul | 16.26 | Jul | 8.16 | Jul | 10.00 | Jul | 7.25 | Jul | 8.50 | Jul | 4.75 | July | 8.25 |
| Aug | 14.39 | Aug | 7.90 | Aug | 10.00 | Aug | 7.51 | Aug | 8.50 | Aug | 4.75 | | |
| Sep | 13.50 | Sep | 7.50 | Sep | 10.00 | Sep | 7.75 | Sep | 8.49 | Sep | 4.75 | | |
| Oct | 12.52 | Oct | 7.50 | Oct | 10.00 | Oct | 7.75 | Oct | 8.12 | Oct | 4.75 | | |
| Nov | 11.85 | Nov | 7.50 | Nov | 10.00 | Nov | 8.15 | Nov | 7.89 | Nov | 4.35 | | |
| Dec | 11.50 | Dec | 7.50 | Dec | 10.00 | Dec | 8.50 | Dec | 7.75 | Dec | 4.25 | | |
| Jan 1983 | 11.16 | Jan 1987 | 7.50 | Jan 1991 | 9.52 | Jan 1995 | 8.50 | Jan 1999 | 7.75 | Jan 2003 | 4.25 | | |
| Feb | 10.98 | Feb | 7.50 | Feb | 9.05 | Feb | 9.00 | Feb | 7.75 | Feb | 4.25 | | |
| Mar | 10.50 | Mar | 7.50 | Mar | 9.00 | Mar | 9.00 | Mar | 7.75 | Mar | 4.25 | | |
| Apr | 10.50 | Apr | 7.75 | Apr | 9.00 | Apr | 9.00 | Apr | 7.75 | Apr | 4.25 | | |
| May | 10.50 | May | 8.14 | May | 8.50 | May | 9.00 | May | 7.75 | May | 4.25 | | |
| Jun | 10.50 | Jun | 8.25 | Jun | 8.50 | Jun | 9.00 | Jun | 7.75 | Jun | 4.22 | | |
| Jul | 10.50 | Jul | 8.25 | Jul | 8.50 | Jul | 8.80 | Jul | 8.00 | Jul | 4.00 | | |
| Aug | 10.89 | Aug | 8.25 | Aug | 8.50 | Aug | 8.75 | Aug | 8.06 | Aug | 4.00 | | |
| Sep | 11.00 | Sep | 8.70 | Sep | 8.20 | Sep | 8.75 | Sep | 8.25 | Sep | 4.00 | | |
| Oct | 11.00 | Oct | 9.07 | Oct | 8.00 | Oct | 8.75 | Oct | 8.25 | Oct | 4.00 | | |
| Nov | 11.00 | Nov | 8.78 | Nov | 7.58 | Nov | 8.75 | Nov | 8.37 | Nov | 4.00 | | |
| Dec | 11.00 | Dec | 8.75 | Dec | 7.21 | Dec | 8.65 | Dec | 8.50 | Dec | 4.00 | | |

Source:
http://research.stlouisfed.org/fred2/data/MPRIME.txt

Schedule 3-1

**Atmos Energy Corporation**
**GR-2006-0387**




Schedule 3-2

**SCHEDULE 3-2**

**Atmos Energy Corporation**
**GR-2006-0387**

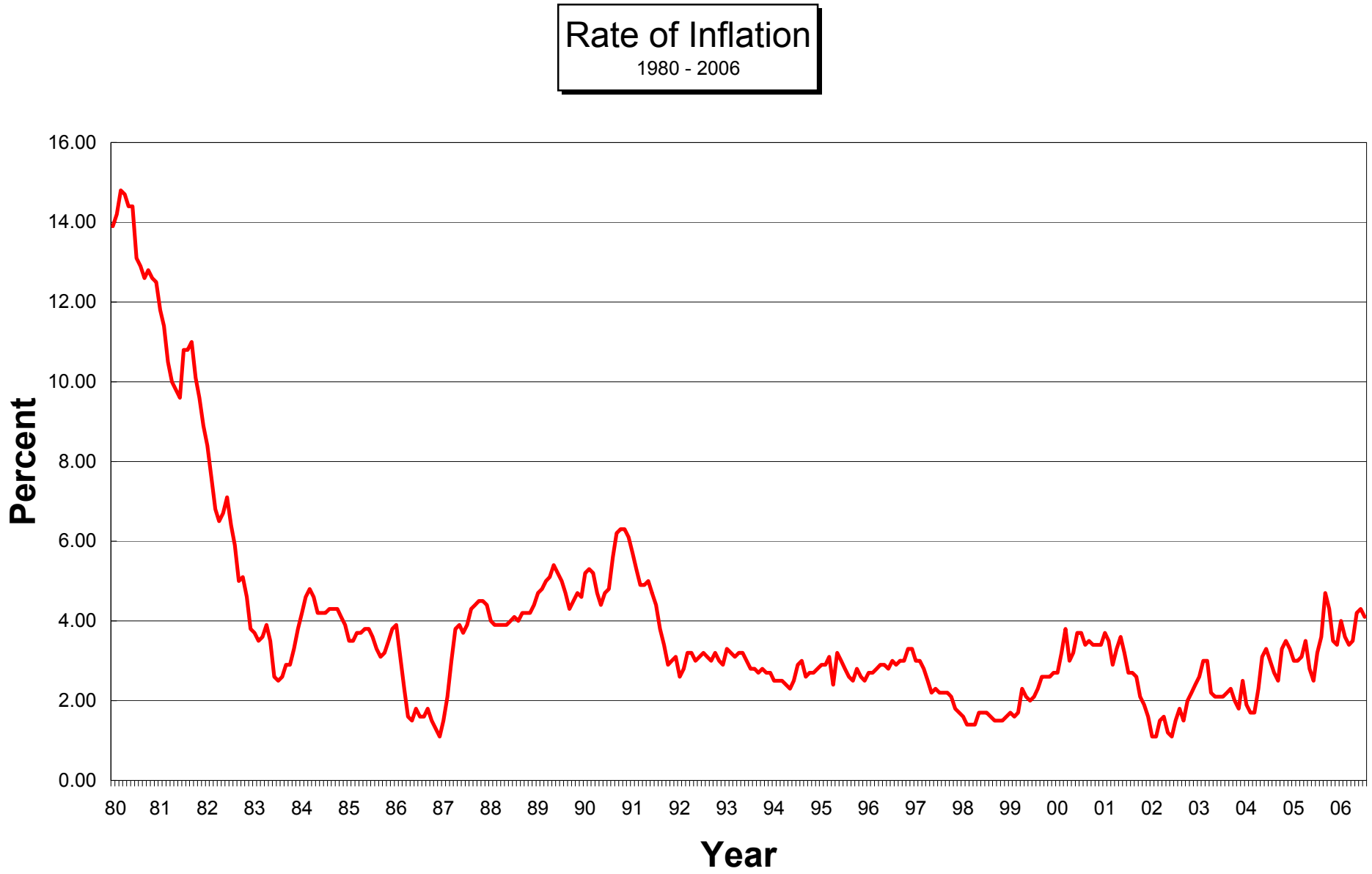
## Rate of Inflation

| Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan 1980 | 13.90 | Jan 1984 | 4.20 | Jan 1988 | 4.00 | Jan 1992 | 2.60 | Jan 1996 | 2.70 | Jan 2000 | 2.70 | Jan 2004 | 1.90 |
| Feb | 14.20 | Feb | 4.60 | Feb | 3.90 | Feb | 2.80 | Feb | 2.70 | Feb | 3.20 | Feb | 1.70 |
| Mar | 14.80 | Mar | 4.80 | Mar | 3.90 | Mar | 3.20 | Mar | 2.80 | Mar | 3.70 | Mar | 1.70 |
| Apr | 14.70 | Apr | 4.60 | Apr | 3.90 | Apr | 3.20 | Apr | 2.90 | Apr | 3.00 | Apr | 2.30 |
| May | 14.40 | May | 4.20 | May | 3.90 | May | 3.00 | May | 2.90 | May | 3.20 | May | 3.10 |
| Jun | 14.40 | Jun | 4.20 | Jun | 4.00 | Jun | 3.10 | Jun | 2.80 | Jun | 3.70 | Jun | 3.30 |
| Jul | 13.10 | Jul | 4.20 | Jul | 4.10 | Jul | 3.20 | Jul | 3.00 | Jul | 3.70 | Jul | 3.00 |
| Aug | 12.90 | Aug | 4.30 | Aug | 4.00 | Aug | 3.10 | Aug | 2.90 | Aug | 3.40 | Aug | 2.70 |
| Sep | 12.60 | Sep | 4.30 | Sep | 4.20 | Sep | 3.00 | Sep | 3.00 | Sep | 3.50 | Sep | 2.50 |
| Oct | 12.80 | Oct | 4.30 | Oct | 4.20 | Oct | 3.20 | Oct | 3.00 | Oct | 3.40 | Oct | 3.30 |
| Nov | 12.60 | Nov | 4.10 | Nov | 4.20 | Nov | 3.00 | Nov | 3.30 | Nov | 3.40 | Nov | 3.50 |
| Dec | 12.50 | Dec | 3.90 | Dec | 4.40 | Dec | 2.90 | Dec | 3.30 | Dec | 3.40 | Dec | 3.30 |
| Jan 1981 | 11.80 | Jan 1985 | 3.50 | Jan 1989 | 4.70 | Jan 1993 | 3.30 | Jan 1997 | 3.00 | Jan 2001 | 3.70 | Jan 2005 | 3.00 |
| Feb | 11.40 | Feb | 3.50 | Feb | 4.80 | Feb | 3.20 | Feb | 3.00 | Feb | 3.50 | Feb | 3.00 |
| Mar | 10.50 | Mar | 3.70 | Mar | 5.00 | Mar | 3.10 | Mar | 2.80 | Mar | 2.90 | Mar | 3.10 |
| Apr | 10.00 | Apr | 3.70 | Apr | 5.10 | Apr | 3.20 | Apr | 2.50 | Apr | 3.30 | Apr | 3.50 |
| May | 9.80 | May | 3.80 | May | 5.40 | May | 3.20 | May | 2.20 | May | 3.60 | May | 2.80 |
| Jun | 9.60 | Jun | 3.80 | Jun | 5.20 | Jun | 3.00 | Jun | 2.30 | Jun | 3.20 | Jun | 2.50 |
| Jul | 10.80 | Jul | 3.60 | Jul | 5.00 | Jul | 2.80 | Jul | 2.20 | Jul | 2.70 | Jul | 3.20 |
| Aug | 10.80 | Aug | 3.30 | Aug | 4.70 | Aug | 2.80 | Aug | 2.20 | Aug | 2.70 | Aug | 3.60 |
| Sep | 11.00 | Sep | 3.10 | Sep | 4.30 | Sep | 2.70 | Sep | 2.20 | Sep | 2.60 | Sep | 4.70 |
| Oct | 10.10 | Oct | 3.20 | Oct | 4.50 | Oct | 2.80 | Oct | 2.10 | Oct | 2.10 | Oct | 4.30 |
| Nov | 9.60 | Nov | 3.50 | Nov | 4.70 | Nov | 2.70 | Nov | 1.80 | Nov | 1.90 | Nov | 3.50 |
| Dec | 8.90 | Dec | 3.80 | Dec | 4.60 | Dec | 2.70 | Dec | 1.70 | Dec | 1.60 | Dec | 3.40 |
| Jan 1982 | 8.40 | Jan 1986 | 3.90 | Jan 1990 | 5.20 | Jan 1994 | 2.50 | Jan 1998 | 1.60 | Jan 2002 | 1.10 | Jan 2006 | 4.00 |
| Feb | 7.60 | Feb | 3.10 | Feb | 5.30 | Feb | 2.50 | Feb | 1.40 | Feb | 1.10 | Feb | 3.60 |
| Mar | 6.80 | Mar | 2.30 | Mar | 5.20 | Mar | 2.50 | Mar | 1.40 | Mar | 1.50 | Mar | 3.40 |
| Apr | 6.50 | Apr | 1.60 | Apr | 4.70 | Apr | 2.40 | Apr | 1.40 | Apr | 1.60 | Apr | 3.50 |
| May | 6.70 | May | 1.50 | May | 4.40 | May | 2.30 | May | 1.70 | May | 1.20 | May | 4.20 |
| Jun | 7.10 | Jun | 1.80 | Jun | 4.70 | Jun | 2.50 | Jun | 1.70 | Jun | 1.10 | June | 4.30 |
| Jul | 6.40 | Jul | 1.60 | Jul | 4.80 | Jul | 2.90 | Jul | 1.70 | Jul | 1.50 | July | 4.10 |
| Aug | 5.90 | Aug | 1.60 | Aug | 5.60 | Aug | 3.00 | Aug | 1.60 | Aug | 1.80 | | |
| Sep | 5.00 | Sep | 1.80 | Sep | 6.20 | Sep | 2.60 | Sep | 1.50 | Sep | 1.50 | | |
| Oct | 5.10 | Oct | 1.50 | Oct | 6.30 | Oct | 2.70 | Oct | 1.50 | Oct | 2.00 | | |
| Nov | 4.60 | Nov | 1.30 | Nov | 6.30 | Nov | 2.70 | Nov | 1.50 | Nov | 2.20 | | |
| Dec | 3.80 | Dec | 1.10 | Dec | 6.10 | Dec | 2.80 | Dec | 1.60 | Dec | 2.40 | | |
| Jan 1983 | 3.70 | Jan 1987 | 1.50 | Jan 1991 | 5.70 | Jan 1995 | 2.90 | Jan 1999 | 1.70 | Jan 2003 | 2.60 | | |
| Feb | 3.50 | Feb | 2.10 | Feb | 5.30 | Feb | 2.90 | Feb | 1.60 | Feb | 3.00 | | |
| Mar | 3.60 | Mar | 3.00 | Mar | 4.90 | Mar | 3.10 | Mar | 1.70 | Mar | 3.00 | | |
| Apr | 3.90 | Apr | 3.80 | Apr | 4.90 | Apr | 2.40 | Apr | 2.30 | Apr | 2.20 | | |
| May | 3.50 | May | 3.90 | May | 5.00 | May | 3.20 | May | 2.10 | May | 2.10 | | |
| Jun | 2.60 | Jun | 3.70 | Jun | 4.70 | Jun | 3.00 | Jun | 2.00 | Jun | 2.10 | | |
| Jul | 2.50 | Jul | 3.90 | Jul | 4.40 | Jul | 2.80 | Jul | 2.10 | Jul | 2.10 | | |
| Aug | 2.60 | Aug | 4.30 | Aug | 3.80 | Aug | 2.60 | Aug | 2.30 | Aug | 2.20 | | |
| Sep | 2.90 | Sep | 4.40 | Sep | 3.40 | Sep | 2.50 | Sep | 2.60 | Sep | 2.30 | | |
| Oct | 2.90 | Oct | 4.50 | Oct | 2.90 | Oct | 2.80 | Oct | 2.60 | Oct | 2.00 | | |
| Nov | 3.30 | Nov | 4.50 | Nov | 3.00 | Nov | 2.60 | Nov | 2.60 | Nov | 1.80 | | |
| Dec | 3.80 | Dec | 4.40 | Dec | 3.10 | Dec | 2.50 | Dec | 2.70 | Dec | 1.90 | | |

Source: U.S. Dept of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers,
Change for 12-Month Period, Bureau of Labor Statistics,
http://www.bls.gov/schedule/archives/cpi_nr.htm

Schedule 4-1

**Atmos Energy Corporation**
**GR-2006-0387**




Schedule 4-2

**SCHEDULE 4-2**

**Atmos Energy Corporation**
**GR-2006-0387**

## Average Yields on Mergent's Public Utility Bonds

| Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan 1980 | 12.12 | Jan 1984 | 13.40 | Jan 1988 | 10.75 | Jan 1992 | 8.67 | Jan 1996 | 7.20 | Jan 2000 | 8.22 | Jan 2004 | 6.23 |
| Feb | 13.48 | Feb | 13.50 | Feb | 10.11 | Feb | 8.77 | Feb | 7.37 | Feb | 8.10 | Feb | 6.17 |
| Mar | 14.33 | Mar | 14.03 | Mar | 10.11 | Mar | 8.84 | Mar | 7.72 | Mar | 8.14 | Mar | 6.01 |
| Apr | 13.50 | Apr | 14.30 | Apr | 10.53 | Apr | 8.79 | Apr | 7.88 | Apr | 8.14 | Apr | 6.38 |
| May | 12.17 | May | 14.95 | May | 10.75 | May | 8.72 | May | 7.99 | May | 8.55 | May | 6.68 |
| Jun | 11.87 | Jun | 15.16 | Jun | 10.71 | Jun | 8.64 | Jun | 8.07 | Jun | 8.22 | Jun | 6.53 |
| Jul | 12.12 | Jul | 14.92 | Jul | 10.96 | Jul | 8.46 | Jul | 8.02 | Jul | 8.17 | Jul | 6.34 |
| Aug | 12.82 | Aug | 14.29 | Aug | 11.09 | Aug | 8.34 | Aug | 7.84 | Aug | 8.05 | Aug | 6.18 |
| Sep | 13.29 | Sep | 14.04 | Sep | 10.56 | Sep | 8.32 | Sep | 8.01 | Sep | 8.16 | Sep | 6.01 |
| Oct | 13.53 | Oct | 13.68 | Oct | 9.92 | Oct | 8.44 | Oct | 7.76 | Oct | 8.08 | Oct | 5.95 |
| Nov | 14.07 | Nov | 13.15 | Nov | 9.89 | Nov | 8.53 | Nov | 7.48 | Nov | 8.03 | Nov | 5.97 |
| Dec | 14.48 | Dec | 12.96 | Dec | 10.02 | Dec | 8.36 | Dec | 7.58 | Dec | 7.79 | Dec | 5.93 |
| Jan 1981 | 14.22 | Jan 1985 | 12.88 | Jan 1989 | 10.02 | Jan 1993 | 8.23 | Jan 1997 | 7.79 | Jan 2001 | 7.76 | Jan 2005 | 5.80 |
| Feb | 14.84 | Feb | 13.00 | Feb | 10.02 | Feb | 8.00 | Feb | 7.68 | Feb | 7.69 | Feb | 5.64 |
| Mar | 14.86 | Mar | 13.66 | Mar | 10.16 | Mar | 7.85 | Mar | 7.92 | Mar | 7.59 | Mar | 5.86 |
| Apr | 15.32 | Apr | 13.42 | Apr | 10.14 | Apr | 7.76 | Apr | 8.08 | Apr | 7.81 | Apr | 5.72 |
| May | 15.84 | May | 12.89 | May | 9.92 | May | 7.78 | May | 7.94 | May | 7.88 | May | 5.60 |
| Jun | 15.27 | Jun | 11.91 | Jun | 9.49 | Jun | 7.68 | Jun | 7.77 | Jun | 7.75 | Jun | 5.39 |
| Jul | 15.87 | Jul | 11.88 | Jul | 9.34 | Jul | 7.53 | Jul | 7.52 | Jul | 7.71 | Jul | 5.50 |
| Aug | 16.33 | Aug | 11.93 | Aug | 9.37 | Aug | 7.21 | Aug | 7.57 | Aug | 7.57 | Aug | 5.51 |
| Sep | 16.89 | Sep | 11.95 | Sep | 9.43 | Sep | 7.01 | Sep | 7.50 | Sep | 7.73 | Sep | 5.54 |
| Oct | 16.76 | Oct | 11.84 | Oct | 9.37 | Oct | 6.99 | Oct | 7.37 | Oct | 7.64 | Oct | 5.79 |
| Nov | 15.50 | Nov | 11.33 | Nov | 9.33 | Nov | 7.30 | Nov | 7.24 | Nov | 7.61 | Nov | 5.88 |
| Dec | 15.77 | Dec | 10.82 | Dec | 9.31 | Dec | 7.33 | Dec | 7.16 | Dec | 7.86 | Dec | 5.83 |
| Jan 1982 | 16.73 | Jan 1986 | 10.66 | Jan 1990 | 9.44 | Jan 1994 | 7.31 | Jan 1998 | 7.03 | Jan 2002 | 7.69 | Jan 2006 | 5.77 |
| Feb | 16.72 | Feb | 10.16 | Feb | 9.66 | Feb | 7.44 | Feb | 7.09 | Feb | 7.62 | Feb | 5.83 |
| Mar | 16.07 | Mar | 9.33 | Mar | 9.75 | Mar | 7.83 | Mar | 7.13 | Mar | 7.83 | Mar | 5.98 |
| Apr | 15.82 | Apr | 9.02 | Apr | 9.87 | Apr | 8.20 | Apr | 7.12 | Apr | 7.74 | Apr | 6.28 |
| May | 15.60 | May | 9.52 | May | 9.89 | May | 8.32 | May | 7.11 | May | 7.76 | May | 6.39 |
| Jun | 16.18 | Jun | 9.51 | Jun | 9.69 | Jun | 8.31 | Jun | 6.99 | Jun | 7.67 | June | 6.39 |
| Jul | 16.04 | Jul | 9.19 | Jul | 9.66 | Jul | 8.47 | Jul | 6.99 | Jul | 7.54 | July | 6.37 |
| Aug | 15.22 | Aug | 9.15 | Aug | 9.84 | Aug | 8.41 | Aug | 6.96 | Aug | 7.34 | | |
| Sep | 14.56 | Sep | 9.42 | Sep | 10.01 | Sep | 8.65 | Sep | 6.88 | Sep | 7.23 | | |
| Oct | 13.88 | Oct | 9.39 | Oct | 9.94 | Oct | 8.88 | Oct | 6.88 | Oct | 7.43 | | |
| Nov | 13.58 | Nov | 9.15 | Nov | 9.76 | Nov | 9.00 | Nov | 6.96 | Nov | 7.31 | | |
| Dec | 13.55 | Dec | 8.96 | Dec | 9.57 | Dec | 8.79 | Dec | 6.84 | Dec | 7.20 | | |
| Jan 1983 | 13.46 | Jan 1987 | 8.77 | Jan 1991 | 9.56 | Jan 1995 | 8.77 | Jan 1999 | 6.87 | Jan 2003 | 7.13 | | |
| Feb | 13.60 | Feb | 8.81 | Feb | 9.31 | Feb | 8.56 | Feb | 7.00 | Feb | 6.92 | | |
| Mar | 13.28 | Mar | 8.75 | Mar | 9.39 | Mar | 8.41 | Mar | 7.18 | Mar | 6.80 | | |
| Apr | 13.03 | Apr | 9.30 | Apr | 9.30 | Apr | 8.30 | Apr | 7.16 | Apr | 6.68 | | |
| May | 13.00 | May | 9.82 | May | 9.29 | May | 7.93 | May | 7.42 | May | 6.35 | | |
| Jun | 13.17 | Jun | 9.87 | Jun | 9.44 | Jun | 7.62 | Jun | 7.70 | Jun | 6.21 | | |
| Jul | 13.28 | Jul | 10.01 | Jul | 9.40 | Jul | 7.73 | Jul | 7.66 | Jul | 6.54 | | |
| Aug | 13.50 | Aug | 10.33 | Aug | 9.16 | Aug | 7.86 | Aug | 7.86 | Aug | 6.78 | | |
| Sep | 13.35 | Sep | 11.00 | Sep | 9.03 | Sep | 7.62 | Sep | 7.87 | Sep | 6.58 | | |
| Oct | 13.19 | Oct | 11.32 | Oct | 8.99 | Oct | 7.46 | Oct | 8.02 | Oct | 6.50 | | |
| Nov | 13.33 | Nov | 10.82 | Nov | 8.93 | Nov | 7.40 | Nov | 7.86 | Nov | 6.44 | | |
| Dec | 13.48 | Dec | 10.99 | Dec | 8.76 | Dec | 7.21 | Dec | 8.04 | Dec | 6.36 | | |

Source:
Mergent Bond Record for June 2006 PU Bonds (page 8)

Schedule 5-1

**Atmos Energy Corporation**
**GR-2006-0387**

## Average Yields on Thirty-Year U.S. Treasury Bonds

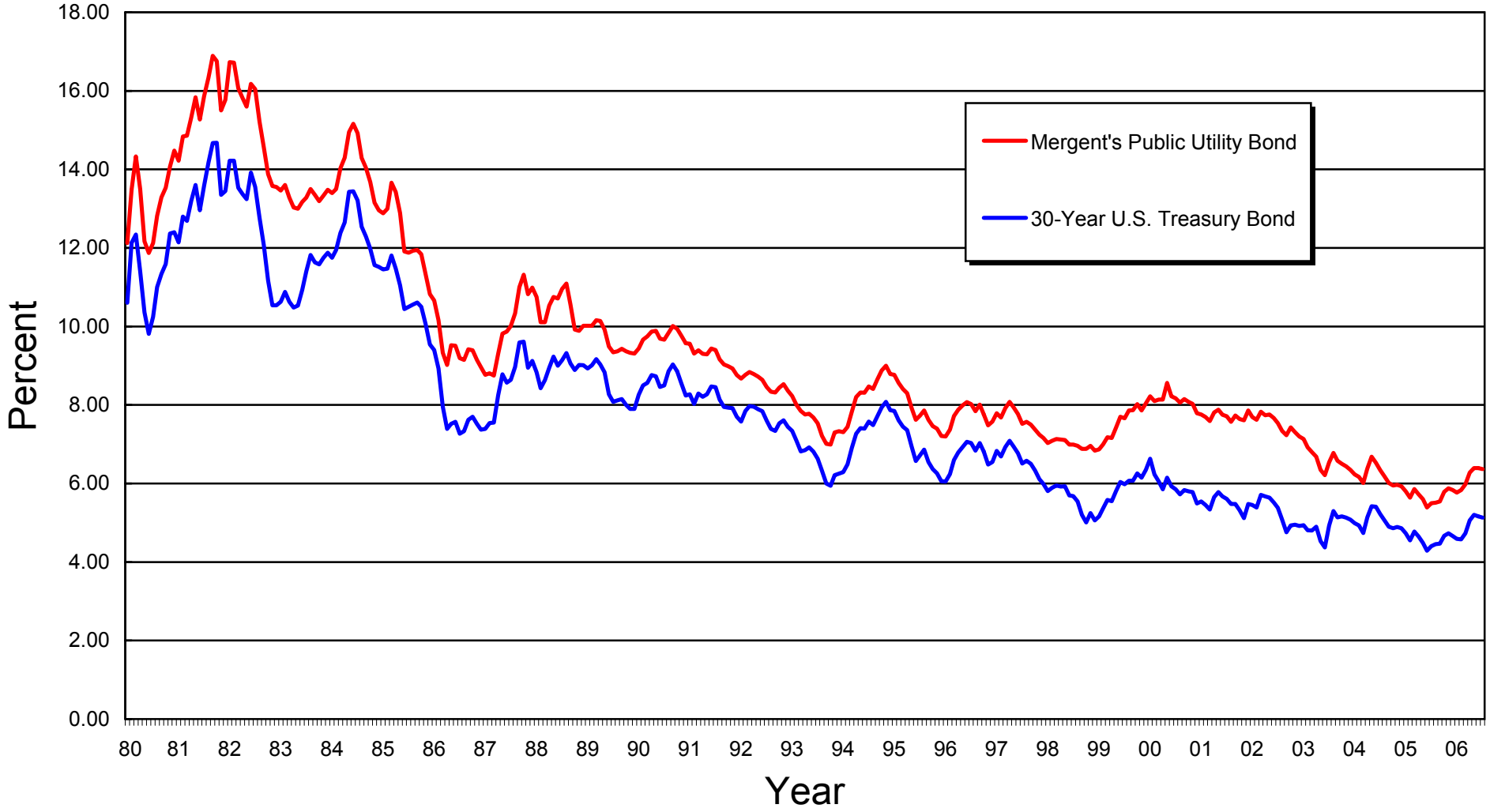
| Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) | Mo/Year | Rate (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan 1980 | 10.60 | Jan 1984 | 11.75 | Jan 1988 | 8.83 | Jan 1992 | 7.58 | Jan 1996 | 6.05 | Jan 2000 | 6.63 | Jan 2004 | 4.99 |
| Feb | 12.13 | Feb | 11.95 | Feb | 8.43 | Feb | 7.85 | Feb | 6.24 | Feb | 6.23 | Feb | 4.93 |
| Mar | 12.34 | Mar | 12.38 | Mar | 8.63 | Mar | 7.97 | Mar | 6.60 | Mar | 6.05 | Mar | 4.74 |
| Apr | 11.40 | Apr | 12.65 | Apr | 8.95 | Apr | 7.96 | Apr | 6.79 | Apr | 5.85 | Apr | 5.14 |
| May | 10.36 | May | 13.43 | May | 9.23 | May | 7.89 | May | 6.93 | May | 6.15 | May | 5.42 |
| Jun | 9.81 | Jun | 13.44 | Jun | 9.00 | Jun | 7.84 | Jun | 7.06 | Jun | 5.93 | Jun | 5.41 |
| Jul | 10.24 | Jul | 13.21 | Jul | 9.14 | Jul | 7.60 | Jul | 7.03 | Jul | 5.85 | Jul | 5.22 |
| Aug | 11.00 | Aug | 12.54 | Aug | 9.32 | Aug | 7.39 | Aug | 6.84 | Aug | 5.72 | Aug | 5.06 |
| Sep | 11.34 | Sep | 12.29 | Sep | 9.06 | Sep | 7.34 | Sep | 7.03 | Sep | 5.83 | Sep | 4.90 |
| Oct | 11.59 | Oct | 11.98 | Oct | 8.89 | Oct | 7.53 | Oct | 6.81 | Oct | 5.80 | Oct | 4.86 |
| Nov | 12.37 | Nov | 11.56 | Nov | 9.02 | Nov | 7.61 | Nov | 6.48 | Nov | 5.78 | Nov | 4.89 |
| Dec | 12.40 | Dec | 11.52 | Dec | 9.01 | Dec | 7.44 | Dec | 6.55 | Dec | 5.49 | Dec | 4.86 |
| Jan 1981 | 12.14 | Jan 1985 | 11.45 | Jan 1989 | 8.93 | Jan 1993 | 7.34 | Jan 1997 | 6.83 | Jan 2001 | 5.54 | Jan 2005 | 4.73 |
| Feb | 12.80 | Feb | 11.47 | Feb | 9.01 | Feb | 7.09 | Feb | 6.69 | Feb | 5.45 | Feb | 4.55 |
| Mar | 12.69 | Mar | 11.81 | Mar | 9.17 | Mar | 6.82 | Mar | 6.93 | Mar | 5.34 | Mar | 4.78 |
| Apr | 13.20 | Apr | 11.47 | Apr | 9.03 | Apr | 6.85 | Apr | 7.09 | Apr | 5.65 | Apr | 4.65 |
| May | 13.60 | May | 11.05 | May | 8.83 | May | 6.92 | May | 6.94 | May | 5.78 | May | 4.49 |
| Jun | 12.96 | Jun | 10.44 | Jun | 8.27 | Jun | 6.81 | Jun | 6.77 | Jun | 5.67 | Jun | 4.29 |
| Jul | 13.59 | Jul | 10.50 | Jul | 8.08 | Jul | 6.63 | Jul | 6.51 | Jul | 5.61 | Jul | 4.41 |
| Aug | 14.17 | Aug | 10.56 | Aug | 8.12 | Aug | 6.32 | Aug | 6.58 | Aug | 5.48 | Aug | 4.46 |
| Sep | 14.67 | Sep | 10.61 | Sep | 8.15 | Sep | 6.00 | Sep | 6.50 | Sep | 5.48 | Sep | 4.47 |
| Oct | 14.68 | Oct | 10.50 | Oct | 8.00 | Oct | 5.94 | Oct | 6.33 | Oct | 5.32 | Oct | 4.67 |
| Nov | 13.35 | Nov | 10.06 | Nov | 7.90 | Nov | 6.21 | Nov | 6.11 | Nov | 5.12 | Nov | 4.73 |
| Dec | 13.45 | Dec | 9.54 | Dec | 7.90 | Dec | 6.25 | Dec | 5.99 | Dec | 5.48 | Dec | 4.66 |
| Jan 1982 | 14.22 | Jan 1986 | 9.40 | Jan 1990 | 8.26 | Jan 1994 | 6.29 | Jan 1998 | 5.81 | Jan 2002 | 5.44 | Jan 2006 | 4.59 |
| Feb | 14.22 | Feb | 8.93 | Feb | 8.50 | Feb | 6.49 | Feb | 5.89 | Feb | 5.39 | Feb | 4.58 |
| Mar | 13.53 | Mar | 7.96 | Mar | 8.56 | Mar | 6.91 | Mar | 5.95 | Mar | 5.71 | Mar | 4.73 |
| Apr | 13.37 | Apr | 7.39 | Apr | 8.76 | Apr | 7.27 | Apr | 5.92 | Apr | 5.67 | Apr | 5.06 |
| May | 13.24 | May | 7.52 | May | 8.73 | May | 7.41 | May | 5.93 | May | 5.64 | May | 5.20 |
| Jun | 13.92 | Jun | 7.57 | Jun | 8.46 | Jun | 7.40 | Jun | 5.70 | Jun | 5.52 | Jun | 5.16 |
| Jul | 13.55 | Jul | 7.27 | Jul | 8.50 | Jul | 7.58 | Jul | 5.68 | Jul | 5.38 | July | 5.13 |
| Aug | 12.77 | Aug | 7.33 | Aug | 8.86 | Aug | 7.49 | Aug | 5.54 | Aug | 5.08 | | |
| Sep | 12.07 | Sep | 7.62 | Sep | 9.03 | Sep | 7.71 | Sep | 5.20 | Sep | 4.76 | | |
| Oct | 11.17 | Oct | 7.70 | Oct | 8.86 | Oct | 7.94 | Oct | 5.01 | Oct | 4.93 | | |
| Nov | 10.54 | Nov | 7.52 | Nov | 8.54 | Nov | 8.08 | Nov | 5.25 | Nov | 4.95 | | |
| Dec | 10.54 | Dec | 7.37 | Dec | 8.24 | Dec | 7.87 | Dec | 5.06 | Dec | 4.92 | | |
| Jan 1983 | 10.63 | Jan 1987 | 7.39 | Jan 1991 | 8.27 | Jan 1995 | 7.85 | Jan 1999 | 5.16 | Jan 2003 | 4.94 | | |
| Feb | 10.88 | Feb | 7.54 | Feb | 8.03 | Feb | 7.61 | Feb | 5.37 | Feb | 4.81 | | |
| Mar | 10.63 | Mar | 7.55 | Mar | 8.29 | Mar | 7.45 | Mar | 5.58 | Mar | 4.80 | | |
| Apr | 10.48 | Apr | 8.25 | Apr | 8.21 | Apr | 7.36 | Apr | 5.55 | Apr | 4.90 | | |
| May | 10.53 | May | 8.78 | May | 8.27 | May | 6.95 | May | 5.81 | May | 4.53 | | |
| Jun | 10.93 | Jun | 8.57 | Jun | 8.47 | Jun | 6.57 | Jun | 6.04 | Jun | 4.37 | | |
| Jul | 11.40 | Jul | 8.64 | Jul | 8.45 | Jul | 6.72 | Jul | 5.98 | Jul | 4.93 | | |
| Aug | 11.82 | Aug | 8.97 | Aug | 8.14 | Aug | 6.86 | Aug | 6.07 | Aug | 5.30 | | |
| Sep | 11.63 | Sep | 9.59 | Sep | 7.95 | Sep | 6.55 | Sep | 6.07 | Sep | 5.14 | | |
| Oct | 11.58 | Oct | 9.61 | Oct | 7.93 | Oct | 6.37 | Oct | 6.26 | Oct | 5.16 | | |
| Nov | 11.75 | Nov | 8.95 | Nov | 7.92 | Nov | 6.26 | Nov | 6.15 | Nov | 5.13 | | |
| Dec | 11.88 | Dec | 9.12 | Dec | 7.70 | Dec | 6.06 | Dec | 6.35 | Dec | 5.08 | | |

Sources:
http://finance.yahoo.com/q/hp?s=^TYX

Schedule 5-2

**Atmos Energy Corporation**
**GR-2006-0387**

**Average Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2006)**

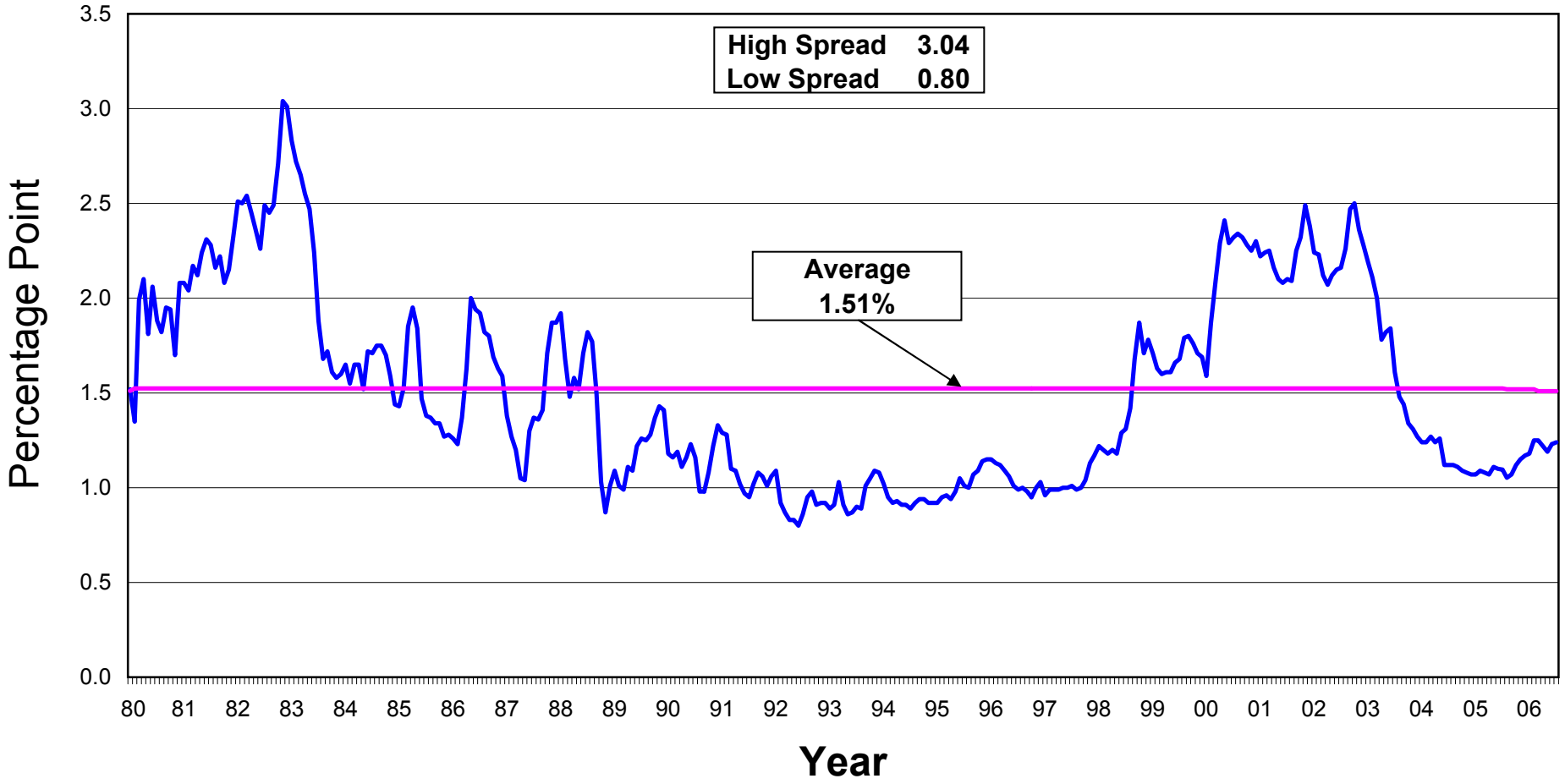



Schedule 5-3

**SCHEDULE 5-3**

**Atmos Energy Corporation**
**GR-2006-0387**

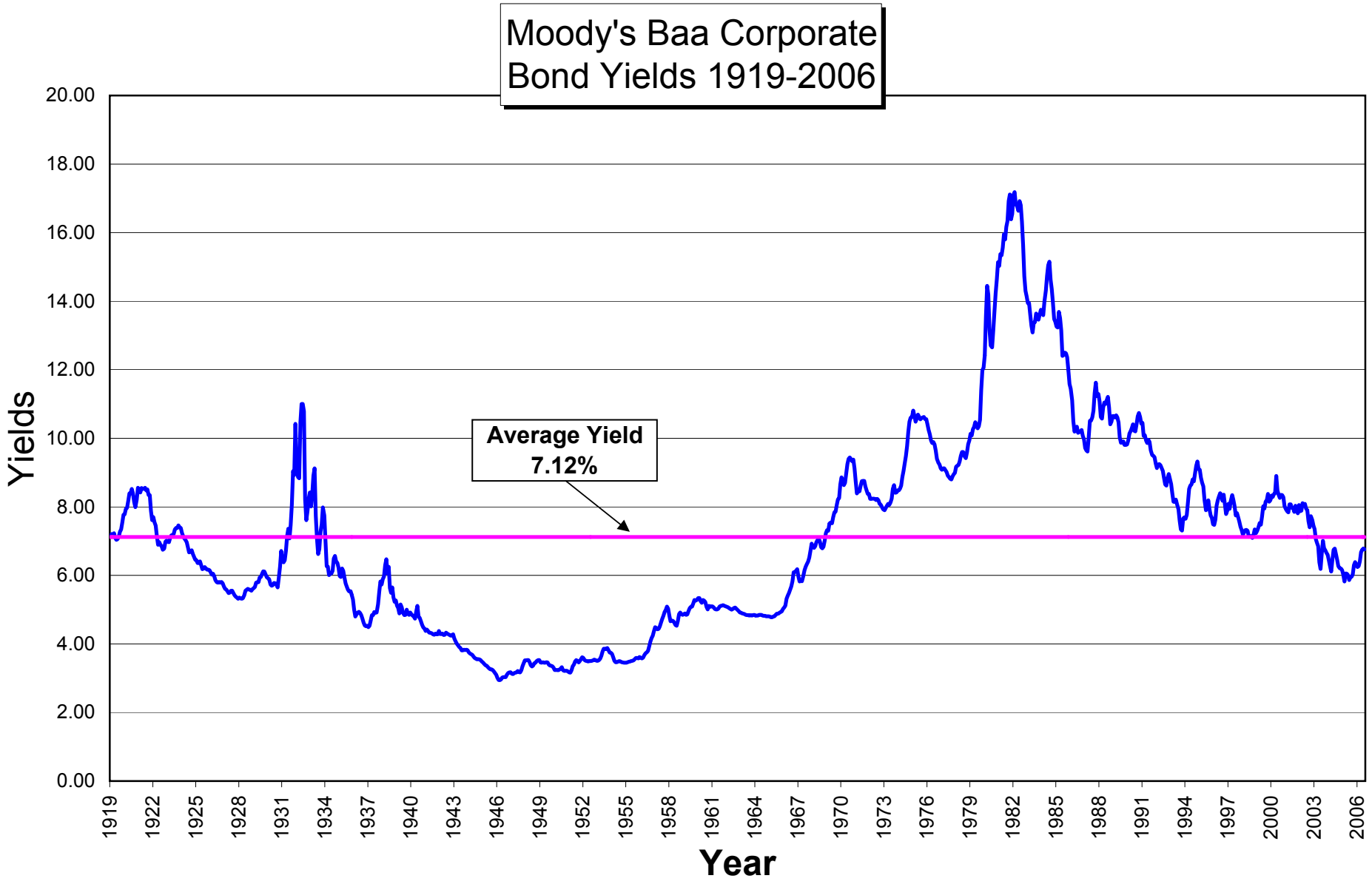
# Monthly Spreads Between Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2006)




Schedule 5-4

**SCHEDULE 5-4**

**Atmos Energy Corporation**
**GR-2006-0387**




**Source: St. Louis Federal Reserve Website: http://stlouisfed.org**

**Schedule 5-5**

**Schedule 5-5**

Atmos Energy Corporation
GR-2006-0387

## Economic Estimates and Projections, 2006-2008

| | Inflation Rate | | | Real GDP | | | Unemployment | | | 3-Mo. T-Bill Rate | | | 30-Year T-Bond Rate | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Source | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 |
| Value Line Investment Survey -- Selection & Opinion (08-25-06, page 961) | 3.40% | 2.50% | 2.30% | 3.40% | 2.60% | 3.10% | 4.70% | 4.90% | 4.90% | 4.90% | 5.00% | 4.80% | 5.10% | 5.40% | 5.50% |
| The Budget and Economic Outlook FY2007-2016 | 2.80% | 2.20% | 2.20% | 3.60% | 3.40% | 3.10% | 5.00% | 5.00% | 5.20% | 4.50% | 4.50% | 4.40% | N/A | N/A | N/A |
| Current rate | 4.10% | | | 2.90% | | | 4.70% | | | 4.95% | | | 4.87% | | |

Notes: N.A. = Not Available.
Value Line data for 2006-2008 are estimated.
CBO data for 2006 and 2007 are forecasted, data for 2008 is projected.

Sources of Current Rates:

| | |
|---|---|
| Inflation: | The Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, 12-Month Period Ending, July 31, 2006 (see first paragraph). |
| | http://www.bls.gov/schedule/archives/cpi_nr.htm |
| GDP: | U.S. Department of Commerce, Bureau of Economic Analysis for the Quarter Ending June 31, 2006 (see first paragraph). |
| | http://www.bea.gov/bea/newsrel/gdpnewsrelease.htm |
| Unemployment: | The Bureau of Labor Statistics, Economy Situation Summary - Unemployment Rate, August 2006. |
| | http://www.bls.gov/news.release/empsit.nr0.htm |
| 3-Month Treasury: | St. Louis Federal Reserve website for July 1, 2006. |
| | http://research.stlouisfed.org/fred2/series/TB3MS/22 |
| 30-Yr. T-Bond: | CBS MarketWatch website on September 1, 2006. |
| | http://www.marketwatch.com/tools/marketsummary/default.asp?site=mktw |
| Other Sources (2006 - 2008): | ValueLine Investment Survey Selection & Opinion, August 25, 2006, page 961. |
| | The Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2007-2016, January 2006, page 46. |
| | http://www.cbo.gov/ftpdocs/70xx/doc7027/01-26-BudgetOutlook.pdf |

Schedule 6

SCHEDULE 6

**Atmos Energy Corporation**
**GR-2006-0387**

**Historical Consolidated Capital Structures for Atmos Energy Corporation**

(Millions of Dollars)

| Capital Components | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | | 5-Year Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Common Equity | $583,864.0 | | $573,235.0 | | $857,517.0 | | $1,133,459.0 | | $1,602,422.0 | | $950,099.4 |
| Preferred Stock | 0.0 | | 0.0 | | 0.0 | | | | 0.0 | | $0.0 |
| Long-Term Debt | 713,094.0 | * | 692,443.0 | * | 873,263.0 | * | 867,219.0 | * | 2,186,368.0 | * | $1,066,477.4 |
| Short-Term Debt | 0.0 | | 0.0 | | 0.0 | | 0.0 | | 0.0 | | $0.0 |
| Total | $1,296,958.0 | | $1,265,678.0 | | $1,730,780.0 | | $2,000,678.0 | | $3,788,790.0 | | $2,016,576.8 |

| Capital Components | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | | 5-Year Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Common Equity | 45.02% | | 45.29% | | 49.55% | | 56.65% | | 42.29% | | 47.76% |
| Preferred Stock | 0.00% | | 0.00% | | 0.00% | | 0.00% | | 0.00% | | 0.00% |
| Long-Term Debt | 54.98% | | 54.71% | | 50.45% | | 43.35% | | 57.71% | | 52.24% |
| Short-Term Debt | 0.00% | | 0.00% | | 0.00% | | 0.00% | | 0.00% | | 0.00% |
| Total | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% |

Source: Atmos Energy Corporation's SEC 10-K for 9/30/2001.
Atmos Energy Corporation's SEC 10-K for 9/30/2002.
Atmos Energy Corporation's SEC 10-K for 9/30/2003.
Atmos Energy Corporation's SEC 10-K for 9/30/2004.
Atmos Energy Corporation's SEC 10-K for 9/30/2005.

Note: *Includes current maturities of long-term debt.

Schedule 7

**SCHEDULE 7**

**Atmos Energy Corporation**
**GR-2006-0387**

## Selected Financial Ratios for Atmos Energy Corporation

| Financial Ratios | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| Return on Common Equity | 9.60% | 10.40% | 9.30% | 7.60% | 8.50% |
| Earnings Per Common Share | $1.47 | $1.45 | $1.71 | $1.58 | $1.72 |
| Cash Dividends Per Common Share | $1.16 | $1.18 | $1.20 | $1.22 | $1.24 |
| Common Dividend Payout Ratio | 79.00% | 82.00% | 70.00% | 77.00% | 73.00% |
| Year-End Market Price Per Common Share | $21.60 | $21.50 | $23.94 | $25.19 | $28.25 |
| Year-End Book Value Per Common Share | $14.31 | $13.75 | $16.66 | $18.05 | $19.90 |
| Year-End Market-to-Book Ratio | 1.51 x | 1.56 x | 1.44 x | 1.40 x | 1.42 x |
| Funds From Operations (FFO) Interest Coverage Ratio | 4.0 x | 3.4 x | 4.2 x | 4.1 x | 3.2 x |
| FFO/Average Total Debt | 20% | 17% | 23% | 22% | 14% |
| Corporate Credit Rating (Standard & Poor's Corporation) | A- | A- | A- | BBB | BBB |

Formulas:

Common Dividend Payout Ratio = Common Dividends Paid / Earnings Per Common Share.

Year-End Market-to-Book Ratio = Year-End Market Price Per Common Share / Year-End Book Value Per Common Share.

Sources: Standard and Poor's CreditStats, August 11, 2005.
Atmos Energy Corporation's 2005 Annual Report to Shareholders.
Value Line Investment Survey for Atmos Energy Corporation, June 16, 2006.
Standard and Poor's Research Summary: Atmos Energy Corporation, December 29, 2005.

Schedule 8

**Atmos Energy Corporation**
**GR-2006-0387**

**Capital Structure as of June 30, 2006**
**Atmos Energy Corporation**

| Capital Component | | Dollar Amount (000's) | Percentage of Capital |
|---|---|---|---|
| Common Stock Equity | $ | 1,664,556 | 42.41% |
| Preferred Stock | $ | - | 0.00% |
| Long-Term Debt | $ | 2,184,082 | 55.64% |
| Short-Term Debt | $ | 76,619 | 1.95% |
| **Total Capitalization** | **$** | **3,925,257** | **100.00%** |

**Gas Financial Ratio Benchmark**
**Total Debt / Total Capital**

| | |
|---|---|
| Standard & Poor's Corporation's RatingsDirect, | BBB Credit Rating based on a "4" Business Profile |
| Revised Financial Guidelines as of June 2, 2004 | 52% to 62% |

Notes: 1. Long-term Debt at December 31, 2005 is based on the net balance of long-term debt, including current maturities (total principal amount of long-term debt outstanding less unamortized expenses and discounts) shown on Schedule 10. This balance also includes the amount of non-regulated debt.

Source: Reponse to Data Request 0068.

## Atmos Energy Corporation

**Consolidated & Utility Long-Term Debt Outstanding w/ calculation of Effective Interest Rates**

**Updated to June 30, 2006**

**Embedded Cost of Long-Term Debt as of June 30, 2006 for Atmos Energy Corporation**

| Line | Atmos Energy Corp., Consolidated: Debt Series | Year Issued | Outstanding 6/30/2005 | Outstanding 7/31/2005 | Outstanding 8/31/2005 | Outstanding 9/30/2005 | Outstanding 10/31/2005 | Outstanding 11/30/2005 | Outstanding 12/31/2005 |
|---|---|---|---|---|---|---|---|---|---|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) |
| 1 | 9.76% Sr Note J Hancock due 2004/ RET 2013 | 1989 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| 2 | 9.57% Sr Note Var Annuity Life due 2006/RET 2013 | 1991 | - | - | - | - | - | - | - |
| 3 | 7.95% Sr Note Var Annuity Life due 2006/RET 2013 | 1992 | - | - | - | - | - | - | - |
| 4 | 8.07% Sr Note Var Annuity Life due 2006/RET 2013 | 1994 | - | - | - | - | - | - | - |
| 5 | 8.26% Sr Note NY Life due 2014/RET 2013 | 1994 | - | - | - | - | - | - | - |
| 6 | 9.40% First Mortgage Bond J due May 2021/RET 2005 | 1991 | - | - | - | - | - | - | - |
| 7 | 10% Senior Notes due Dec 2011 | 1991 | 2,303,308 | 2,303,308 | 2,303,308 | 2,303,308 | 2,303,308 | 2,303,308 | 2,303,308 |
| 8 | 7.38% Senior Notes due May 2011 | 2001 | 350,000,000 | 350,000,000 | 350,000,000 | 350,000,000 | 350,000,000 | 350,000,000 | 350,000,000 |
| 9 | 6.75% Debentures Unsecured due July 2028 | 1998 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 |
| 10 | 5.125% Senior Notes due Feb 2013 | 2003 | 250,000,000 | 250,000,000 | 250,000,000 | 250,000,000 | 250,000,000 | 250,000,000 | 250,000,000 |
| 11 | 10.43% First Mortgage Bond P due 2017 (eff 2012) | 1987 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 8,750,000 | 8,750,000 |
| 12 | 9.75% First Mortgage Bond Q due Apr 2020/RET 2005 | 1990 | - | - | - | - | - | - | - |
| 13 | 9.32% First Mortgage Bond T due June 2021/RET 2005 | 1991 | - | - | - | - | - | - | - |
| 14 | 8.77% First Mortgage Bond U due May 2022/RET 2005 | 1992 | - | - | - | - | - | - | - |
| 15 | 7.50% First Mortgage Bond V due Dec 2007/RET 2005 | 1992 | - | - | - | - | - | - | - |
| 16 | 6.67% MTN A1 due Dec 2025 | 1995 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 |
| 17 | 6.27% MTN A2 due Dec 2010 | 1995 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 |
| 18 | 2.465% Sr Note 3Yr Floating due 10/15/2007 | 2004 | 300,000,000 | 300,000,000 | 300,000,000 | 300,000,000 | 300,000,000 | 300,000,000 | 300,000,000 |
| 19 | 4.00% Sr Note due 10/15/2009 | 2004 | 400,000,000 | 400,000,000 | 400,000,000 | 400,000,000 | 400,000,000 | 400,000,000 | 400,000,000 |
| 20 | 4.95% Sr Note due 10/15/2014 | 2004 | 500,000,000 | 500,000,000 | 500,000,000 | 500,000,000 | 500,000,000 | 500,000,000 | 500,000,000 |
| 21 | 5.95% Sr Note due 10/15/2034 | 2004 | 200,000,000 | 200,000,000 | 200,000,000 | 200,000,000 | 200,000,000 | 200,000,000 | 200,000,000 |
| 22 | | | | | | | | | |
| 23 | Subtotal -- Utility Long-Term Debt | | $ 2,182,303,308 | $ 2,182,303,308 | $ 2,182,303,308 | $ 2,182,303,308 | $ 2,182,303,308 | $ 2,181,053,308 | $ 2,181,053,308 |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | United Cities Propane Gas, Inc. | | | | | | | | |
| 27 | Baxter, KY -- Harlan LP due 03/05 | | - | - | - | - | - | - | - |
| 28 | Evensville, TN -- E-Con due 06/08 | | 336,250 | 336,250 | 168,125 | 168,125 | 168,125 | 168,125 | 168,125 |
| 29 | Pulaski -- Ingas, Ingram & Carvell 06/08 | | 300,000 | 300,000 | 300,000 | 300,000 | 300,000 | 300,000 | 250,000 |
| 30 | Boone, NC -- High Country, Kirby 02/04 | | - | - | - | - | - | - | - |
| 31 | Total Propane | | $636,250 | $636,250 | $468,125 | $468,125 | $468,125 | $468,125 | $418,125 |
| 32 | | | | | | | | | |
| 33 | United Cities Gas Storage, Inc. | | | | | | | | |
| 34 | Nations Bk Sr Sec Notes #18 #26 03/07 | 1991 | - | - | - | - | - | - | - |
| 35 | | | | | | | | | |
| 36 | Atmos Leasing, Inc. | | | | | | | | |
| 37 | Industrial Develop Revenue Bond 07/13 | 1991 | 1,113,094 | 1,047,618 | 1,047,618 | 1,047,618 | 1,047,618 | 1,047,618 | 1,047,618 |
| 38 | Atmos Power Sys - Wells Fargo 05/08 | 2003 | 2,764,831 | 2,712,980 | 2,660,886 | 2,608,546 | 2,555,960 | 2,503,127 | 2,450,044 |
| 39 | US Bancorp - 04/09 | 2004 | 3,948,477 | 3,870,862 | 3,792,904 | 3,714,602 | 3,635,955 | 3,556,962 | 3,477,620 |
| 40 | **Total Long-Term Debt** | | $ 2,190,765,960 | $ 2,190,571,018 | $ 2,190,272,841 | $ 2,190,142,199 | $ 2,190,010,967 | $ 2,188,629,140 | $ 2,188,446,715 |
| 41 | Less Unamortized Debt Discount | | | | $ 3,811,639 | $ 3,774,628 | $ 3,737,617 | $ 3,700,606 | $ 3,663,594.44 |
| 42 | Annualized Amortization of Debt Exp. & Debt Dsct. | | | | | | | | |
| 43 | | | | | $ 2,186,461,202 | $ 2,186,367,572 | $ 2,186,273,350 | $ 2,184,928,534 | $ 2,184,783,121 |
| 44 | Effective Avg Cost of Consol Debt | | | | | | | | |

*Note: includes current maturities*

Source: Response to data request 0068.

Schedule 10

## Atmos Energy Corporation

**Consolidated & Utility Long-Term Debt Outstanding w/ calcul**

**Updated to June 30, 2006**



| Line | Atmos Energy Corp., Consolidated: Debt Series | Year Issued | Outstanding 1/31/2006 | Outstanding 2/28/2006 | Outstanding 3/31/2006 | Outstanding 4/30/2006 | Outstanding 5/31/2006 | Outstanding 6/30/2006 | End Int Rate | Annual Int at 6/30/2006 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (a) | (b) | (c) | (k) | (l) | (m) | (n) | (o) | (p) | (q) | (r) | (s) |
| 1 | 9.76% Sr Note J Hancock due 2004/ RET 2013 | 1989 | $0 | $0 | $0 | $0 | $0 | $0 | 9.76% | 0 | |
| 2 | 9.57% Sr Note Var Annuity Life due 2006/RET 2013 | 1991 | - | - | - | - | - | - | 9.57% | 0 | |
| 3 | 7.95% Sr Note Var Annuity Life due 2006/RET 2013 | 1992 | - | - | - | - | - | - | 7.95% | 0 | |
| 4 | 8.07% Sr Note Var Annuity Life due 2006/RET 2013 | 1994 | - | - | - | - | - | - | 8.07% | 0 | |
| 5 | 8.26% Sr Note NY Life due 2014/RET 2013 | 1994 | - | - | - | - | - | - | 8.26% | 0 | |
| 6 | 9.40% First Mortgage Bond J due May 2021/RET 2005 | 1991 | - | - | - | - | - | - | 9.40% | 0 | |
| 7 | 10% Senior Notes due Dec 2011 | 1991 | 2,303,308 | 2,303,308 | 2,303,308 | 2,303,308 | 2,303,308 | 2,303,308 | 10.00% | 230,331 | |
| 8 | 7.38% Senior Notes due May 2011 | 2001 | 350,000,000 | 350,000,000 | 350,000,000 | 350,000,000 | 350,000,000 | 350,000,000 | 7.38% | 25,812,500 | |
| 9 | 6.75% Debentures Unsecured due July 2028 | 1998 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 6.75% | 10,125,000 | |
| 10 | 5.125% Senior Notes due Feb 2013 | 2003 | 250,000,000 | 250,000,000 | 250,000,000 | 250,000,000 | 250,000,000 | 250,000,000 | 5.13% | 12,812,500 | |
| 11 | 10.43% First Mortgage Bond P due 2017 (eff 2012) | 1987 | 8,750,000 | 8,750,000 | 8,750,000 | 8,750,000 | 8,750,000 | 8,750,000 | 10.43% | 912,625 | |
| 12 | 9.75% First Mortgage Bond Q due Apr 2020/RET 2005 | 1990 | - | - | - | - | - | - | 9.75% | 0 | |
| 13 | 9.32% First Mortgage Bond T due June 2021/RET 2005 | 1991 | - | - | - | - | - | - | 9.32% | 0 | |
| 14 | 8.77% First Mortgage Bond U due May 2022/RET 2005 | 1992 | - | - | - | - | - | - | 8.77% | 0 | |
| 15 | 7.50% First Mortgage Bond V due Dec 2007/RET 2005 | 1992 | - | - | - | - | - | - | 7.50% | 0 | |
| 16 | 6.67% MTN A1 due Dec 2025 | 1995 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 6.67% | 667,000 | |
| 17 | 6.27% MTN A2 due Dec 2010 | 1995 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 6.27% | 627,000 | |
| 18 | 2.465% Sr Note 3Yr Floating due 10/15/2007 | 2004 | 300,000,000 | 300,000,000 | 300,000,000 | 300,000,000 | 300,000,000 | 300,000,000 | 5.45% | 16,356,000 | |
| 19 | 4.00% Sr Note due 10/15/2009 | 2004 | 400,000,000 | 400,000,000 | 400,000,000 | 400,000,000 | 400,000,000 | 400,000,000 | 4.00% | 16,000,000 | |
| 20 | 4.95% Sr Note due 10/15/2014 | 2004 | 500,000,000 | 500,000,000 | 500,000,000 | 500,000,000 | 500,000,000 | 500,000,000 | 4.95% | 24,750,000 | |
| 21 | 5.95% Sr Note due 10/15/2034 | 2004 | 200,000,000 | 200,000,000 | 200,000,000 | 200,000,000 | 200,000,000 | 200,000,000 | 5.95% | 11,900,000 | |
| 22 | | | | | | | | | | | |
| 23 | Subtotal -- Utility Long-Term Debt | | $ 2,181,053,308 | $ 2,181,053,308 | $ 2,181,053,308 | $ 2,181,053,308 | $ 2,181,053,308 | $ 2,181,053,308 | | $ 120,192,956 | |
| 24 | | | | | | | | | | | |
| 25 | | | | | | | | | | | |
| 26 | United Cities Propane Gas, Inc. | | | | | | | | | | |
| 27 | Baxter, KY -- Harlan LP due 03/05 | | - | - | - | - | - | - | 7.50% | - | |
| 28 | Evensville, TN -- E-Con due 06/08 | | 168,125 | 168,125 | 168,125 | 168,125 | 168,125 | 168,125 | 7.00% | 11,769 | |
| 29 | Pulaski -- Ingas, Ingram & Carvell 06/08 | | 250,000 | 250,000 | 250,000 | 250,000 | 200,000 | 200,000 | 8.00% | 16,000 | |
| 30 | Boone, NC -- High Country, Kirby 02/04 | | - | - | - | - | - | - | 7.50% | - | |
| 31 | Total Propane | | $418,125 | $418,125 | $418,125 | $418,125 | $368,125 | $368,125 | | $27,769 | |
| 32 | | | | | | | | | | | |
| 33 | United Cities Gas Storage, Inc. | | | | | | | | | | |
| 34 | Nations Bk Sr Sec Notes #18 #26 03/07 | 1991 | - | - | - | - | - | - | 7.45% | - | |
| 35 | | | | | | | | | | | |
| 36 | Atmos Leasing, Inc. | | | | | | | | | | |
| 37 | Industrial Develop Revenue Bond 07/13 | 1991 | 982,142 | 982,142 | 982,142 | 982,142 | 982,142 | 982,142 | 7.90% | 77,589 | |
| 38 | Atmos Power Sys - Wells Fargo 05/08 | 2003 | 2,396,712 | 2,343,128 | 2,289,292 | 2,235,203 | 2,180,859 | 2,126,259 | 5.65% | 120,134 | |
| 39 | US Bancorp - 04/09 | 2004 | 3,397,929 | 3,317,886 | 3,237,491 | 3,156,741 | 3,075,635 | 2,994,171 | 5.29% | 158,392 | |
| 40 | **Total Long-Term Debt** | | $ 2,188,248,215 | $ 2,188,114,589 | $ 2,187,980,358 | $ 2,187,845,519 | $ 2,187,660,069 | $ 2,187,524,005 | | $ 120,576,839 | |
| 41 | Less Unamortized Debt Discount | | $ 3,626,583 | $ 3,589,572 | $ 3,552,561 | $ 3,515,550 | $ 3,478,539 | $ 3,441,528 | | | |
| 42 | Annualized Amortization of Debt Exp. & Debt Dsct. | | | | | | | | | $ 11,094,525 | |
| 43 | | | $ 2,184,621,632 | $ 2,184,525,017 | $ 2,184,427,796 | $ 2,184,329,968 | $ 2,184,181,529 | $ 2,184,082,477 | | $ 131,671,364 | |
| 44 | Effective Avg Cost of Consol Debt | | | | | | | | **6.03%** | end of period | |

*Note: includes current maturities*

Source: Response to data request 0068.

Schedule 10

## Atmos Energy Corporation

**Consolidated & Utility Long-Term Debt Outstanding w/ calcul**

**Updated to June 30, 2006**



| Line | Atmos Energy Corp., Consolidated: Debt Series | Year Issued | Annualized 4270 Amort for T-lock | Annualized 4280-81 Amort Debt Exp&Dsct | Unamort Debt Exp 1810 Penalty 1890 Dsct 2260 6/30/2006 | | 4270.30937 exp on T-lock 6/30/2006 | 4280 mthly debt exp 6/30/2006 | 4280 mthly dsct exp 6/30/2006 | 4281 mthly exp 6/30/2006 | unamort debt exp 1810 Balance 6/30/2006 | unamort loss 1890 Balance 6/30/2006 | debt dsct 2260 Balance 6/30/2006 | 2150.20102 Treasury lock 6/30/2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (a) | (b) | (c) | (t) | (u) | (v) | (w) | | | | | | | | |
| 1 | 9.76% Sr Note J Hancock due 2004/ RET 2013 | 1989 | | 1,362 | 8,969 | | | | | 114 | 0 | 8,968.59 | | |
| 2 | 9.57% Sr Note Var Annuity Life due 2006/RET 2013 | 1991 | | 2,908 | 19,144 | | | | | 242 | 0 | 19,143.91 | | |
| 3 | 7.95% Sr Note Var Annuity Life due 2006/RET 2013 | 1992 | | 1,435 | 9,450 | | | | | 120 | 0 | 9,449.89 | | |
| 4 | 8.07% Sr Note Var Annuity Life due 2006/RET 2013 | 1994 | | 3,771 | 24,825 | | | | | 314 | 0 | 24,825.16 | | |
| 5 | 8.26% Sr Note NY Life due 2014/RET 2013 | 1994 | | 7,050 | 46,409 | | | | | 587 | 0 | 46,409.35 | | |
| 6 | 9.40% First Mortgage Bond J due May 2021/RET 2005 | 1991 | | 560,397 | 8,312,562 | | | - | | 46,700 | 0 | 8,312,562.43 | | |
| 7 | 10% Senior Notes due Dec 2011 | 1991 | | 0 | 0 | | | | | | 0 | | | |
| 8 | 7.38% Senior Notes due May 2011 | 2001 | | 502,339 | 2,426,624 | | | 40,111.55 | 1,750.00 | | 2,325,123.52 | | 101,500 | |
| 9 | 6.75% Debentures Unsecured due July 2028 | 1998 | | 99,938 | 2,206,969 | | | 4,640.68 | 3,687.50 | | 1,229,781.59 | | 977,188 | |
| 10 | 5.125% Senior Notes due Feb 2013 | 2003 | | 1,033,655 | 6,804,895 | | | 6,522.99 | 1,770.83 | 77,844 | 515,315.91 | 6,149,683.05 | 139,896 | |
| 11 | 10.43% First Mortgage Bond P due 2017 (eff 2012) | 1987 | | 12,224 | 139,559 | | | 1,018.68 | | | 139,559.16 | | | |
| 12 | 9.75% First Mortgage Bond Q due Apr 2020/RET 2005 | 1990 | | 337,581 | 4,670,340 | | | - | | 28,132 | 0 | 4,670,339.63 | | |
| 13 | 9.32% First Mortgage Bond T due June 2021/RET 2005 | 1991 | | 362,746 | 5,411,441 | | | - | | 30,229 | 0 | 5,411,440.55 | | |
| 14 | 8.77% First Mortgage Bond U due May 2022/RET 2005 | 1992 | | 368,719 | 5,838,526 | | | - | | 30,727 | 0 | 5,838,525.80 | | |
| 15 | 7.50% First Mortgage Bond V due Dec 2007/RET 2005 | 1992 | | 26,021 | 37,337 | | | - | | 2,168 | 0 | 37,336.76 | | |
| 16 | 6.67% MTN A1 due Dec 2025 | 1995 | | 7,790 | 152,458 | | | 649.18 | | | 152,457.99 | | | |
| 17 | 6.27% MTN A2 due Dec 2010 | 1995 | | 15,441 | 70,575 | | | 1,286.75 | | | 70,574.71 | | | |
| 18 | 2.465% Sr Note 3Yr Floating due 10/15/2007 | 2004 | | 605,023 | 806,697 | | | 50,418.58 | | | 806,697.25 | | | |
| 19 | 4.00% Sr Note due 10/15/2009 | 2004 | 2,320,733 | 995,873 | 3,319,578 | | 193,394 | 56,856.12 | 26,133.33 | | 2,274,244.81 | | 1,045,333 | 7,735,777 |
| 20 | 4.95% Sr Note due 10/15/2014 | 2004 | 3,237,793 | 453,170 | 3,776,414 | | 269,816 | 37,472.48 | 291.67 | | 3,747,247.66 | | 29,167 | 26,981,610 |
| 21 | 5.95% Sr Note due 10/15/2034 | 2004 | (7,047) | 115,724 | 3,278,835 | | (587) | 6,265.85 | 3,377.78 | | 2,130,390.22 | | 1,148,444 | (199,667) |
| 22 | | | | | | | | | | | | | | |
| 23 | Subtotal -- Utility Long-Term Debt | | $ 5,551,479 | $ 5,513,168 | $ 47,361,606 | | 462,623.27 | 205,242.86 | 37,011.11 | $ 217,177 | $ 13,391,393 | $ 30,528,685 | $ 3,441,528 | 34,517,720 |
| 24 | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | |
| 26 | United Cities Propane Gas, Inc. | | | | | | | | | | | | | |
| 27 | Baxter, KY -- Harlan LP due 03/05 | | | | 0 | | | | | | | | | |
| 28 | Evensville, TN -- E-Con due 06/08 | | | | 0 | | | | | | | | | |
| 29 | Pulaski -- Ingas, Ingram & Carvell 06/08 | | | | 0 | | | | | | | | | |
| 30 | Boone, NC -- High Country, Kirby 02/04 | | | | 0 | | | | | | | | | |
| 31 | Total Propane | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | |
| 33 | United Cities Gas Storage, Inc. | | | | | | | | | | | | | |
| 34 | Nations Bk Sr Sec Notes #18 #26 03/07 | 1991 | | 29,878 | 29,878 | | | 3,243.22 | | | 29,878.05 | | | |
| 35 | | | | | | | | | | | | | | |
| 36 | Atmos Leasing, Inc. | | | | | | | | | | | | | |
| 37 | Industrial Develop Revenue Bond 07/13 | 1991 | | 0 | 0 | | | | | | | | | |
| 38 | Atmos Power Sys - Wells Fargo 05/08 | 2003 | | 0 | 0 | | | | | | | | | |
| 39 | US Bancorp - 04/09 | 2004 | | 0 | 0 | | | | | | | | | |
| 40 | **Total Long-Term Debt** | | | | | | | | | | | | | |
| 41 | Less Unamortized Debt Discount | | $ 5,551,479 | $ 5,543,046 | $ 47,391,484 | | 462,623 | $ 208,486 | $ 37,011 | $ 217,177 | $ 13,421,271 | $ 30,528,685 | $ 3,441,528 | $ 34,517,720 |
| 42 | Annualized Amortization of Debt Exp. & Debt Dsct. | | | | | | | ck | ck | ck | ck | ck | ck | |
| 43 | | | check | check | check | | G/L amt | 245,497 | | 217,177 | 13,421,270 | 30,528,685 | 3,441,528 | 34,517,720 |
| 44 | Effective Avg Cost of Consol Debt | | 5,551,479 | 5,552,087 | 47,391,484 | | diff g/l vs calc | (0) | | (0) | 1 | 0 | - | 0 |

*Note: includes current maturities*

Source: Response to data request 0068.

Schedule 10

**Atmos Energy Corporation**
**GR-2006-0387**

**Atmos Energy Corporation**
**Missouri Jurisdiction**
**Consolidated Capital Balances**
**and Computation of Short Term Debt effective Interest Rate**
**Updated to June 30, 2006**

**Embedded Cost of Short-Term Debt as of June 30, 2006 for Atmos Energy Corporation**

| Line No. | | Atmos Consolidated Balances Long-Term Debt | Short-Term Debt | Equity | Calc of Atmos Consolidated STD effective Int Rate STD Avg Daily Bal | STD Int Exp & fees | STD avg rate | YTD actual sum (e) / sum (c) |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | Jun-05 | 2,186,880,299 | 0 | 1,616,010,262 | | | | |
| 2 | Jul-05 | 2,186,722,368 | 34,725,000 | 1,622,139,213 | 10,569,355 | 226,191 | | |
| 3 | Aug-05 | 2,186,461,202 | 39,775,000 | 1,601,286,273 | 23,514,032 | 270,040 | | |
| 4 | Sep-05 | 2,186,367,572 | 144,809,035 | 1,602,421,868 | 36,963,333 | 311,336 | | |
| 5 | Oct-05 | 2,186,273,350 | 292,312,556 | 1,605,908,901 | 156,300,161 | 743,035 | | |
| 6 | Nov-05 | 2,184,928,534 | 345,862,525 | 1,597,660,028 | 236,930,933 | 1,033,596 | | |
| 7 | Dec-05 | 2,184,783,121 | 474,059,145 | 1,637,617,369 | 303,849,194 | 1,380,906 | | |
| 8 | Jan-06 | 2,184,621,632 | 460,001,996 | 1,674,006,645 | 268,228,226 | 1,567,670 | | |
| 9 | Feb-06 | 2,184,525,017 | 466,770,750 | 1,677,842,191 | 186,207,821 | 845,021 | | |
| 10 | Mar-06 | 2,184,427,797 | 262,315,049 | 1,706,290,715 | 186,226,613 | 972,660 | | |
| 11 | Apr-06 | 2,184,329,969 | 251,840,375 | 1,690,460,078 | 148,120,000 | 851,132 | | |
| 12 | May-06 | 2,184,181,530 | 222,250,539 | 1,667,774,019 | 167,400,000 | 984,919 | | |
| 13 | Jun-06 | 2,184,082,478 | 297,086,920 | 1,664,555,393 | 179,760,000 | 1,034,186 | | |
| 14 | | | | | | $10,220,691 | | |
| 15 | | | | | | | | |
| 16 | Average | | | | $158,672,472 | | 6.44% | |
| 17 | | | | | | | | |

18 Source: Actuals (b),'(c), (d) Atmos Consolidated Balance Sheet; (e) & (f) Treasury Dept STD report & G/L acct analysis FERC 431.

**Atmos Energy Corporation**
**GR-2006-0387**

**Criteria for Selecting Comparable Gas Utility Companies**

| (1) | (2) | (3) | (4) | (5) | (6) | | (7) |
|---|---|---|---|---|---|---|---|
| Vertically Integrated Gas Utility Companies(Ticker) | Stock Publicly Traded | Information Printed In Value Line | 10-Years of Data Available | At Least Investment Grade Credit Rating | Two Sources for Projected Growth Available with One from Value Line | No Missouri Operations | **Comparable Company Met All Criteria** |
| **AGL Resources, Inc.(ATG)** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| **Cascade Natural Gas Corp.(CGC)** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| Delta Natural Gas Company Inc.(DGAS) | Yes | Yes | No | | | | |
| Energy West(EWST) | Yes | Yes | No | | | | |
| EnergySouth, Inc.(ENSI) | Yes | Yes | Yes | Yes | No | | |
| Laclede Group (LG) | Yes | Yes | Yes | Yes | Yes | No | |
| **New Jersey Resources Corp.(NJR)** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| **Northwest Natural Gas Company(NWN)** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| **Peoples Energy Corporation(PGL)** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| **Piedmont Natural Gas Co., Inc.(PNY)** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| RGC Resources, Inc.(RGCO) | Yes | Yes | No | | | | |
| Semco Energy, Inc.(SEN) | Yes | Yes | Yes | No | | | |
| **South Jersey Industries, Inc.(SJI)** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| **WGL Holdings, Inc.(WGL)** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |

Sources: Columns 1, 2 and 5 = Standard & Poor's RatingsDirect.
Columns 3, 4 and 6 = The Value Line Investment Survey: Ratings & Reports, June 16, 2006.
Columnn 6 = August 2006 Earnings Guide and I/B/E/S Inc.'s Institutional Brokers Estimate System, August 17, 2006.

**Atmos Energy Corporation**
**GR-2006-0387**

**Comparable Gas Utility Companies for Atmos Energy Corporation**

| Number | Ticker Symbol | Company Name |
|---|---|---|
| 1 | ATG | AGL Resources, Inc. |
| 2 | CGC | Cascade Natural Gas Corp. |
| 3 | NJR | New Jersey Resources Corp. |
| 4 | NWN | Northwest Natural Gas Co. |
| 5 | PGL | Peoples Energy Corp. |

**Atmos Energy Corporation**
**GR-2006-0387**

**Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Eight Comparable Gas Utility Companies and Atmos Energy Corporation**

| | 10-Year Annual Compound Growth Rates | | | |
|---|---|---|---|---|
| Company Name | DPS | EPS | BVPS | Average of 10 Year Annual Compound Growth Rates |
| AGL Resources, Inc. | 1.50% | 6.50% | 5.50% | 4.50% |
| Cascade Natural Gas Corp. | 0.00% | 1.50% | 0.50% | 0.67% |
| New Jersey Resources Corp. | 2.50% | 7.50% | 5.00% | 5.00% |
| Northwest Natural Gas Co. | 1.00% | 1.50% | 4.00% | 2.17% |
| Peoples Energy Corp. | 2.00% | 2.00% | 2.00% | 2.00% |
| Piedmont Natural Gas Co. | 5.50% | 5.50% | 6.50% | 5.83% |
| South Jersey Industries, Inc. | 1.50% | 8.00% | 5.50% | 5.00% |
| WGL Holdings, Inc. | 1.50% | 4.50% | 4.00% | 3.33% |
| **Average** | **1.94%** | **4.63%** | **4.13%** | **3.56%** |
| Standard Deviation | 1.51% | 2.51% | 1.87% | 1.70% |
| Atmos Energy Corporation | **3.00%** | **4.00%** | **6.50%** | **4.50%** |

Source: The Value Line Investment Survey: Ratings & Reports, June 16, 2006.

Schedule 14-1

**Atmos Energy Corporation**
**GR-2006-0387**

**Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Eight Comparable Gas Utility Companies and Atmos Energy Corporation**

| | 5-Year Annual Compound Growth Rates | | | |
|---|---|---|---|---|
| Company Name | DPS | EPS | BVPS | Average of 5 Year Annual Compound Growth Rates |
| AGL Resources, Inc. | 2.00% | 13.50% | 8.50% | 8.00% |
| Cascade Natural Gas Corp. | 0.00% | -3.50% | 0.00% | -1.17% |
| New Jersey Resources Corp. | 3.00% | 8.50% | 7.00% | 6.17% |
| Northwest Natural Gas Co. | 1.00% | 5.00% | 3.50% | 3.17% |
| Peoples Energy Corp. | 2.00% | 0.00% | 0.50% | 0.83% |
| Piedmont Natural Gas Co. | 5.00% | 5.00% | 6.50% | 5.50% |
| South Jersey Industries, Inc. | 2.50% | 11.50% | 13.00% | 9.00% |
| WGL Holdings, Inc. | 1.50% | 6.00% | 3.00% | 3.50% |
| **Average** | **2.13%** | **5.75%** | **5.25%** | **4.38%** |
| Standard Deviation | 1.39% | 5.25% | 4.09% | 3.25% |
| Atmos Energy Corporation | **2.00%** | **6.50%** | **8.50%** | **5.67%** |

Source: The Value Line Investment Survey: Ratings & Reports, June 16, 2006.

Schedule 14-2

**Atmos Energy Corporation**
**GR-2006-0387**

**Average of Ten- and Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share of Growth Rates for the Eight Comparable Gas Utility Companies and Atmos Energy Corporation**

| Company Name | 10-Year Average DPS, EPS & BVPS | 5-Year Average DPS, EPS & BVPS | Average of 5-Year & 10-Year Averages |
|---|---|---|---|
| AGL Resources, Inc. | 4.50% | 8.00% | 6.25% |
| Cascade Natural Gas Corp. | 0.67% | -1.17% | -0.25% |
| New Jersey Resources Corp. | 5.00% | 6.17% | 5.58% |
| Northwest Natural Gas Co. | 2.17% | 3.17% | 2.67% |
| Peoples Energy Corp. | 2.00% | 0.83% | 1.42% |
| Piedmont Natural Gas Co. | 5.83% | 5.50% | 5.67% |
| South Jersey Industries, Inc. | 5.00% | 9.00% | 7.00% |
| WGL Holdings, Inc. | 3.33% | 3.50% | 3.42% |
| **Average** | **3.56%** | **4.38%** | **3.97%** |
| Atmos Energy Corporation | **4.50%** | **5.67%** | **5.08%** |

Schedule 14-3

**Atmos Energy Corporation**
**GR-2006-0387**

**Historical and Projected Growth Rates**
**for the Eight Comparable Gas Utility Companies**
**and Atmos Energy Corporation**

| Company Name | (1) Historical Growth Rate (DPS, EPS and BVPS) | (2) Projected 5-Year EPS Growth IBES (Mean) | (3) Projected 5-Year EPS Growth S&P | (4) Projected 3-5 Year EPS Growth Value Line | (5) Average Projected Growth | (6) Average of Historical & Projected Growth |
|---|---|---|---|---|---|---|
| AGL Resources, Inc. | 6.25% | 4.28% | 4.00% | 4.00% | 4.09% | 5.17% |
| Cascade Natural Gas Corp. | -0.25% | 3.00% | 3.00% | 9.00% | 5.00% | 2.38% |
| New Jersey Resources Corp. | 5.58% | 5.67% | 6.00% | 4.50% | 5.39% | 5.49% |
| Northwest Natural Gas Co. | 2.67% | 5.96% | 6.00% | 7.00% | 6.32% | 4.49% |
| Peoples Energy Corp. | 1.42% | 3.95% | 4.00% | 1.50% | 3.15% | 2.28% |
| Piedmont Natural Gas Co. | 5.67% | 4.33% | 4.00% | 6.00% | 4.78% | 5.22% |
| South Jersey Industries, Inc. | 7.00% | 6.00% | 5.00% | 7.00% | 6.00% | 6.50% |
| WGL Holdings, Inc. | 3.42% | 3.75% | 4.00% | 2.00% | 3.25% | 3.33% |
| **Average** | **3.97%** | **4.62%** | **4.50%** | **5.13%** | **4.75%** | **4.36%** |
| Atmos Energy Corporation | **5.08%** | **5.38%** | **6.00%** | **7.00%** | **6.13%** | **5.61%** |

**Proposed Range of Growth for Comparables: 4.35%-5.15%**

Column 5 = [ (Column 2 + Column 3 + Column 4) / 3 ]

Column 6 = [ ( Column 1 + Column 5 ) / 2 ]

Sources: Column 1 = Average of 10-Year and 5-Year Annual Compound Growth Rates from Schedule 13-3.

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, August 17, 2006.

Column 3 = Standard & Poor's Earnings Guide, August 2006.

Column 4 = The Value Line Investment Survey: Ratings and Reports, June 16, 2006.

**Atmos Energy Corporation**
**GR-2006-0387**

**Average High / Low Stock Price for April 2006 through July 2006**
**for the Eight Comparable Gas Utility Companies and**
**Atmos Energy Corporation**

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | -- April 2006 -- | | -- May 2006 -- | | -- June 2006 -- | | -- July 2006 -- | | **Average High/Low Stock Price (4/06 - 7/06)** |
| Company Name | High Stock Price | Low Stock Price | High Stock Price | Low Stock Price | High Stock Price | Low Stock Price | High Stock Price | Low Stock Price | |
| AGL Resources, Inc. | $36.370 | $34.430 | $36.670 | $34.630 | $38.130 | $35.360 | $39.400 | $37.160 | **$36.519** |
| Cascade Natural Gas Corp. | $20.560 | $19.260 | $21.120 | $20.200 | $21.300 | $20.150 | $26.100 | $20.840 | **$21.191** |
| New Jersey Resources Corp. | $46.430 | $43.700 | $45.720 | $42.850 | $47.380 | $43.950 | $50.900 | $46.340 | **$45.909** |
| Northwest Natural Gas Co. | $35.790 | $33.790 | $36.000 | $33.300 | $37.040 | $34.230 | $38.430 | $35.810 | **$35.549** |
| Peoples Energy Corp. | $37.160 | $35.330 | $37.590 | $35.340 | $38.660 | $35.100 | $42.800 | $35.710 | **$37.211** |
| Piedmont Natural Gas Co. | $25.230 | $23.500 | $24.880 | $23.310 | $25.400 | $23.460 | $26.170 | $24.300 | **$24.531** |
| South Jersey Industries, Inc. | $27.480 | $25.800 | $27.890 | $25.630 | $27.520 | $25.800 | $30.000 | $27.200 | **$27.165** |
| WGL Holdings, Inc. | $30.740 | $28.800 | $29.930 | $27.040 | $29.390 | $27.820 | $28.440 | $30.320 | **$29.060** |
| Atmos Energy Corporation | **$26.800** | **$26.090** | **$27.730** | **$25.550** | **$28.030** | **$26.010** | **$29.250** | **$27.750** | **$27.151** |

Notes:

Column 9 = [ ( Column 1 + Column 2 + Column 3 + Column 4 + Column 5 + Column 6 + Column 7 + Column 8 ) / 8 ].

Sources: S & P Stock Guides: May , June, July, and August 2006.

**Atmos Energy Corporation**
**GR-2006-0387**

**Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Eight Comparable Gas Utility Companies and Atmos Energy Corporation**

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| Company Name | Expected Annual Dividend | Average High/Low Stock Price | Projected Dividend Yield | Average of Historical & Projected Growth | Estimated Cost of Common Equity |
| AGL Resources, Inc. | $1.54 | $36.519 | 4.22% | 5.17% | 9.39% |
| Cascade Natural Gas Corp. | $0.96 | $21.191 | 4.53% | 2.38% | 6.91% |
| New Jersey Resources Corp. | $1.49 | $45.909 | 3.25% | 5.49% | 8.73% |
| Northwest Natural Gas Co. | $1.40 | $35.549 | 3.94% | 4.49% | 8.43% |
| Peoples Energy Corp. | $2.18 | $37.211 | 5.86% | 2.28% | 8.14% |
| Piedmont Natural Gas Co. | $0.98 | $24.531 | 3.99% | 5.22% | 9.22% |
| South Jersey Industries, Inc. | $0.94 | $27.165 | 3.46% | 6.50% | 9.96% |
| WGL Holdings, Inc. | $1.37 | $29.060 | 4.70% | 3.33% | 8.03% |
| **Average** | | | **4.24%** | **4.36%** | **8.60%** |
| Atmos Energy Corporation | **$1.27** | **$27.151** | **4.68%** | **5.61%** | **10.28%** |

| | |
|---|---|
| **Proposed Dividend Yield:** | **4.24%** |
| **Proposed Range of Growth:** | **4.35% - 5.15%** |
| **Estimated Proxy Cost of Common Equity:** | **8.59%-9.39%** |
| **Atmos Energy Corporation Company-Specific Using Average Projected Growth** | **10.80%** |
| **Atmos Energy Corporation Company-Specific Using IBES Average Growth** | **10.06%** |

Notes: Column 1 = Estimated Dividends Declared per share represents the average projected dividends for 2006 and 2007.

Column 3 = ( Column 1 / Column 2 ).

Column 5 = ( Column 3 + Column 4 ).

Sources: Column 1 = The Value Line Investment Survey: Ratings and Reports, June 16, 2006.

Column 2 = Schedule 15.

Column 4 = Schedule 14.

**Atmos Energy Corporation**
**GR-2006-0387**

**Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates**
**Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries**
**for the Eight comparable Gas Utility Companies and Atmos Energy Corporation**

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| Company Name | Risk Free Rate | Company's Value Line Beta | Arithmetic Average Market Risk Premium (1926-2005) | Geometric Average Market Risk Premium (1926-2005) | Geometric Average Market Risk Premium (1996-2005) | Arithmetic CAPM Cost of Common Equity (1926-2005) | Geometric CAPM Cost of Common Equity (1926-2005) | Geometric CAPM Cost of Common Equity (1996-2005) |
| AGL Resources, Inc. | 5.13% | 0.95 | 6.50% | 4.90% | 1.48% | 11.31% | 9.79% | 6.54% |
| Cascade Natural Gas Corp. | 5.13% | 0.85 | 6.50% | 4.90% | 1.48% | 10.66% | 9.30% | 6.39% |
| New Jersey Resources Corp. | 5.13% | 0.80 | 6.50% | 4.90% | 1.48% | 10.33% | 9.05% | 6.31% |
| Northwest Natural Gas Co. | 5.13% | 0.75 | 6.50% | 4.90% | 1.48% | 10.01% | 8.81% | 6.24% |
| Peoples Energy Corp. | 5.13% | 0.90 | 6.50% | 4.90% | 1.48% | 10.98% | 9.54% | 6.46% |
| Piedmont Natural Gas Co. | 5.13% | 0.85 | 6.50% | 4.90% | 1.48% | 10.66% | 9.30% | 6.39% |
| South Jersey Industries, Inc. | 5.13% | 0.70 | 6.50% | 4.90% | 1.48% | 9.68% | 8.56% | 6.17% |
| WGL Holdings, Inc. | 5.13% | 0.80 | 6.50% | 4.90% | 1.48% | 10.33% | 9.05% | 6.31% |
| **Average** | | **0.83** | | | | **10.49%** | **9.17%** | **6.35%** |
| Great Plains Energy | **5.13%** | **0.75** | **6.50%** | **4.90%** | **1.48%** | **10.01%** | **8.81%** | **6.24%** |

Sources:

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for July 2006 which was obtained from the St. Louis Federal Reserve website at http://research.stlouisfed.org/fred2/series/GS30/22.

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by the Value Line Investment Survey: Ratings & Reports, June 16, 2006.

Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2005 was determined to be 6.50% based on an arithmetic average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2006 Yearbook.

Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2005 was determined to be 4.90% based on a geometric average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2006 Yearbook.

Column 5 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1996 - 2005 was determined to be 2.29% as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2006 Yearbook.

Column 6 = (Column 1 + (Column 2 * Column 3)).

Column 7 = (Column 1 + (Column 2 * Column 4)).

Column 8 = (Column 1 + (Column 2 * Column 5)).

Schedule 18

**Atmos Energy Corporation**
**GR-2006-0387**

**Selected Financial Ratios for the Eight Comparable Gas Utility Companies and Atmos Energy Corporation**

| Company Name | (1) 2005 Common Equity Ratio | (2) 2005 Long-Term Debt Ratio | (3) Funds From Operations Interest Coverage | (4) Funds From Operations to Total Debt | (5) Market-to-Book Value | (6) 2005 Return on Common Equity | (7) 2006 Projected Return on Common Equity | (8) Bond Rating |
|---|---|---|---|---|---|---|---|---|
| AGL Resources, Inc. | 48.10% | 51.90% | 4.10 x | 18.6% | 1.81 x | 12.90% | 13.00% * | A- |
| Cascade Natural Gas Corp. | 40.60% | 59.40% | 3.50 x | 18.5% | 1.78 x | 7.80% | 9.00% * | BBB+ |
| New Jersey Resources Corp. | 58.00% | 42.00% | 5.00 x | 20.0% | 2.03 x | 17.00% | 16.00% * | A+ |
| Northwest Natural Gas Co. | 53.00% | 47.00% | 4.10 x | 19.1% | 1.55 x | 9.90% | 10.00% * | AA- |
| Peoples Energy Corp. | 47.20% | 52.80% | 4.90 x | 21.0% | 1.65 x | 10.80% | 9.00% * | A- |
| Piedmont Natural Gas Co. | 58.60% | 41.40% | 4.40 x | 52.0% | 1.93 x | 11.50% | 11.00% * | A |
| South Jersey Industries, Inc. | 55.10% | 44.90% | N/A | 20.0% | 1.83 x | 12.40% | 13.00% * | BBB+ |
| WGL Holdings, Inc. | 58.60% | 39.50% | 5.00 x | 23.5% | 1.43 x | 12.00% | 10.00% * | AA- |
| **Average** | **52.40%** | **47.36%** | **4.43** x | **24.1%** | **1.75** x | **11.79%** | **11.38%** | **A** |
| Atmos Energy Corporation | **42.30%** | **57.70%** | **3.20** x | **14.0%** | **1.25** x | **8.50%** | **8.50%** * | **BBB** |

Sources:

The Value Line Investment Survey Ratings & Reports, June 16, 2006: for columns (1), (2), (6) and (7).
Standard & Poor's RatingsDirect and Response to Staff Data Request 0031 for columns (3), (4).
AUS Utility Reports, July 2006 for column (5).

Note: * Estimated.

Schedule 19

**Atmos Energy Corporation**
**GR-2006-0387**

## Public Utility Revenue Requirement

## or

## Cost of Service

The formula for the revenue requirement of a public utility may be stated as follows :

Equation 1 : **Revenue Requirement = Cost of Service**

or

Equation 2 : **R R = O + ( V - D ) R**

The symbols in the second equation are represented by the following factors :

| | | |
|---|---|---|
| R R | = | Revenue Requirement |
| O | = | Prudent Operating Costs, including Depreciation and Taxes |
| V | = | Gross Valuation of the Property Serving the Public |
| D | = | Accumulated Depreciation |
| ( V - D ) | = | Rate Base (Net Valuation) |
| ( V - D ) R | = | Return Amount ($$) or Earnings Allowed on Rate Base |
| R | = | i L + d P + k E or Overall Rate of Return (%) |
| i | = | Embedded Cost of Debt |
| L | = | Proportion of Debt in the Capital Structure |
| d | = | Embedded Cost of Preferred Stock |
| P | = | Proportion of Preferred Stock in the Capital Structure |
| k | = | Required Return on Common Equity (ROE) |
| E | = | Proportion of Common Equity in the Capital Structure |

**Atmos Energy Corporation**
**GR-2006-0387**

# Weighted Cost of Capital as of June 30, 2006 for Atmos Energy Corporation

| Capital Component | Percentage of Capital | Embedded Cost | Weighted Cost of Capital Using Common Equity Return of: 8.59% | 8.99% | 9.39% |
|---|---|---|---|---|---|
| Common Stock Equity | 42.41% | ----- | 3.64% | 3.81% | 3.98% |
| Preferred Stock | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Long-Term Debt | 55.64% | 6.03% | 3.36% | 3.36% | 3.36% |
| Short-Term Debt | 1.95% | 6.44% | 0.13% | 0.13% | 0.13% |
| Total | **100.00%** | | **7.12%** | **7.29%** | **7.46%** |

Notes:

See Schedule 9 for the Capital Structure Ratios.

Source: Embedded Cost of Long-term Debt is from response to data request 0068.

**SCHEDULE 21**