BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE

IN RE:

PETITION OF ATMOS ENERGY CORPORATION FOR APPROVAL OF ADJUSTMENT OF ITS RATES AND REFISED TARIFF	))))	DOCKET NO. 08-00197

NOTICE OF FILING

Atmos Energy Corporation respectfully submits the rebuttal testimony of the following individuals: Patricia J. Childers, Laurie M. Sherwood, and James H. Vander Weide, Ph.D.

A copy of the Verification page for each testimony is also being filed. The original Verifications will be filed upon receipt.

Respectfully submitted

NEAL & HARWELL, PLC

By: _____

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing has been served, via the method(s) indicated below, on the following counsel of record, this the 20th day of February, 2009.

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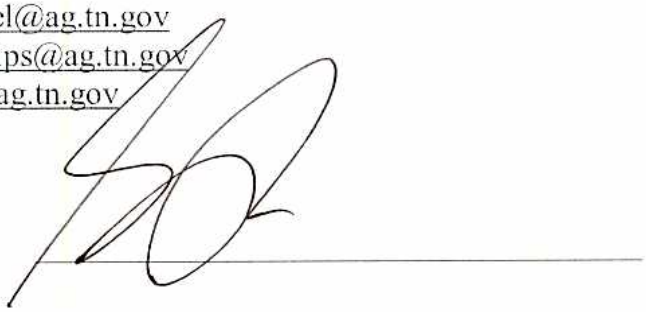

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IN RE:	)	
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PETITION OF ATMOS ENERGY	)	
CORPORATION FOR APPROVAL OF	)	
ADJUSTMENT OF ITS RATES AND	)	
REVISED TARIFF	)	**DOCKET NO. 08-00197**

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF DURHAM)

I, James H. Vander Weide, being first duly sworn, state that I am Research Professor of Finance and Economics at Duke University, The Fuqua School of Business, and President of Financial Strategy Associates, that I am authorized to testify on behalf of Atmos Energy Corporation in the above referenced docket, that the Rebuttal Testimony of James H. Vander Weide pre-filed in this docket on the date of filing herein is true and correct to the best of my knowledge, information and belief.

James H. Vander Weide
James H. Vander Weide, Ph.D.

Sworn and subscribed before me this 19 day of Feb, 2009.

Amy C Knud
Notary Public

My Commission Expires: 2/29/2012

AMY C. KNUDSEN NOTARY PUBLIC EXPIRES N.C. Feb. 29, 2012 Person County

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IN RE:	)	
	)	
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CORPORATION FOR APPROVAL OF	)	
ADJUSTMENT OF ITS RATES AND	)	
REVISED TARIFF	)	**DOCKET NO. 08-00197**

VERIFICATION

STATE OF TENNESSEE)
)
COUNTY OF WILLIAMSON)

I, Patricia Childers, being first duly sworn, state that I am the Vice President, Rates and Regulatory Affairs of the Kentucky/Mid-States Division of Atmos Energy Corporation, that I am authorized to testify on behalf of Atmos Energy Corporation in the above referenced docket, that the Rebuttal Testimony of Patricia Childers pre-filed in this docket on the date of filing herein is true and correct to the best of my knowledge, information and belief.

Patricia Childers
Patricia Childers

Sworn and subscribed before me this 20th day of February, 2009.

Pamela Todd
Notary Public

PAMELA TODD
STATE OF TENNESSEE
NOTARY PUBLIC
DAVIDSON COUNTY, TENN.

My Commission Expires: May 8, 2012

My Commission Expires May 8, 2012

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REBUTTAL TESTIMONY OF PATRICIA J. CHILDERS ON BEHALF OF ATMOS ENERGY CORPORATION

I. INTRODUCTION

Q. PLEASE STATE YOU NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Patricia J. Childers. I am Vice President – Rates & Regulatory Affairs for Atmos Energy Corporation's Kentucky/Mid-States Division (herein referred to as "Atmos" or the "Company"), which includes the Company's regulated gas utility operations in Tennessee. My business address is 810 Crescent Centre Drive, Suite 600, Franklin, Tennessee 37067-6226.

Q. DID YOU FILE DIRECT TESTIMONY ON BEHALF OF THE COMPANY IN THIS PROCEEDING?

A. Yes. In my direct testimony, I addressed the appropriate attrition year revenues, billing determinants and proposed rate design.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. The purpose of my rebuttal testimony is to address the direct testimony of Terry Buckner filed on behalf of the Consumer Advocate and Protection Division ("Consumer Advocate") in the Office of the Attorney General for the State of Tennessee. I will address Mr. Buckner's testimony related to revenues and billing determinants as well as rate design.

III. REVENUES AND BILLING DETERMINANTS

Q. PLEASE DESCRIBE THE METHODOLOGY UTILIZED BY THE CONSUMER ADVOCATE IN THIS PROCEEDING TO CALCULATE REVENUES AND BILLING DETERMINANTS.

A. The Consumer Advocate utilized a forecast based on four years of historical data.[1]

Q. DO YOU AGREE WITH THE CONSUMER ADVOCATE'S REVENUE AND BILLING DETERMINANT RECOMMENDATION?

A. I do not agree with their methodology. However, for purposes of resolving issues in this case, the Company and the Consumer Advocate have entered into a Stipulation that includes a compromise agreement on revenue and billing determinants, and I support that agreement. As the Stipulation indicates, however, the Stipulation is a compromise, and is not an agreement on any particular methodology.

IV. RATE DESIGN

Q. WHAT IS THE COMPANY'S RECOMMENDATION REGARDING RATE DESIGN IN THIS PROCEEDING?

A. In this proceeding the Company is recommending that any granted increase in rates be spread proportionately based on the attrition period revenues of each rate schedule. This approach is consistent with the methodology utilized in the

[1] See Direct Testimony of Terry Buckner at page 6, lines 19 through 23. page 8, lines 16 through 21, page 10, lines 9 through 11, page 11, lines 14 through 16, and page 12, lines 16 through 18.

Company's last rate case in Tennessee. Under this methodology, approximately 55% of the Company's operating margin is currently recovered through the volumetric component of a customer's bill with the remaining 45% of the Company's operating margin recovered through the fixed charge component. Of course, the Company's operating margin represents only 20% to 30% of the customer's total bill with the remaining 70% to 80% of the customer's bill being volumetrically related to gas cost.

Q. DOES MR. BUCKNER'S RECOMMENDATION DIFFER FROM THE COMPANY'S RECOMMENDATION?

A. Yes. Mr. Buckner proposes that any change in rates should be made proportionately to the volumetric rates of all customer classes.[2]

Q. DO YOU AGREE WITH MR. BUCKNER'S RECOMMENDATION?

A. No, I do not. It has been recognized by this Authority that a utility's costs are largely fixed and that fact is certainly true in this case[3]. Mr. Buckner's recommendation ignores this fact by placing all of the rate increase in the volumetric charge which places the Company at a greater risk for recovering those fixed costs.

Q, WHAT IS MR. BUCKNER'S RATIONALE FOR THIS RECOMMENDATION?

A. Mr. Buckner's rationale for this recommendation is that conservation would be better achieved through a higher percentage increase in volumetric rates relative to the percentage increase in fixed monthly customer charges.[4]

Q. DO YOU AGREE WITH MR. BUCKNER'S RATIONALE?

A. No, I do not. In my opinion, conservation is driven by the largest portion of a customer's bill which is the pass-through of gas cost (purchased gas adjustment). This volumetrically related component typically comprises 70% to 80% of a customer's bill and is the primary driver for conservation efforts. In my opinion, the proportionate increase to the volumetric component and fixed charge

[2] See Direct Testimony of Terry Buckner at page 18, line 22 through page 19, line 2.
[3] Motion of Director Miller in Docket 05-00258 at page 16.
[4] See Direct Testimony of Terry Buckner at page 17, lines 19 through 23.

component that the Company proposes is appropriate because it will allow the Company an opportunity to recover a portion of its fixed costs through the customer charge and will not in any way impact a customer's incentive to conserve insomuch as that incentive will continue to be driven by the gas cost component of a customer's bill.

Q. Does this conclude your testimony?

A. Yes.

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REBUTTAL TESTIMONY OF LAURIE M. SHERWOOD ON BEHALF OF ATMOS ENERGY CORPORATION

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.

A. My name is Laurie M. Sherwood. I am the Vice President and Treasurer of Atmos Energy Corporation ("Atmos", "Atmos Energy" or "the Company").

Q. DID YOU FILE DIRECT TESTIMONY ON BEHALF OF THE COMPANY IN THIS PROCEEDING?

A. Yes. In my direct testimony, I addressed the proper capital structure and cost of long-term debt the Tennessee Regulatory Authority (the "Authority") should consider in setting rates in this proceeding. I also addressed the Company's cost of short-term debt in the event the Authority decides to include some level of that component in the Company's capital structure for rate-setting purposes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I am providing this testimony in rebuttal to specific issues raised in the direct cost of capital testimony of Dr. Steve Brown, a witness for the Consumer Advocate and Protection Division ("CAPD") of the Tennessee Attorney General's Office, and to update my recommendation regarding the cost of long-term and short-term debt. The areas addressed in my testimony include the Company's capital structure, the issues raised by Dr. Brown concerning the inclusion of short-term debt in the capital structure, and the Company's recommended cost of long-term and short-term debt. Rebuttal testimony in response to Dr. Brown's testimony

regarding the cost of equity and the appropriate return on equity is being provided by Dr. James Vander Weide.

II. CAPITAL STRUCTURE

Q. WHAT IS THE APPROPRIATE CAPITAL STRUCTURE FOR THE COMPANY IN THIS PROCEEDING?

A. As I explained in my opening testimony, the Company's proper capital structure is 50% long-term debt and 50% equity. This capital structure is appropriate for use in this proceeding because it is representative of the Company's capital structure for the attrition period.

Q. BY COMPARISON, WHAT CAPITAL STRUCTURE DOES THE CAPD RECOMMEND FOR THE COMPANY IN THIS PROCEEDING?

A. The capital structure recommended by Dr. Brown on behalf of the CAPD is reflected on page 1 of Dr. Brown's cost of capital testimony. His capital structure components are 13.1% short-term debt, 41.1% long-term debt[1] and 45.8% equity. I would also note that numerous times in his testimony Dr. Brown erroneously refers to the capital structure recommended by Company witness Dr. Vander Weide.[2] Actually, I am the Company's capital structure witness. Dr. Vander Weide in turn applies my recommended capital structure and cost of long-term debt to his estimated cost of equity to determine an overall rate of return.

Q. HOW DID DR. BROWN DERIVE HIS CAPITAL STRUCTURE?

A. He bases his recommended capital structure on a 5-year average of historical capital structures reported in the annual reports on Form 10-K filed with the Securities and Exchange Commission ("SEC") for eight "comparable companies".[3] Notably, Dr. Brown did not even include Atmos among his group of comparable companies. His averaging of the figures for these other companies quite literally conveys no information about the capital structure of Atmos Energy.

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[1] Dr. Brown's long-term debt component consists of 39.40% long-term debt, 1.26% current maturities of long-term debt, and .47% preferred stock. See Direct Testimony of Steve Brown chart at page 29.
[2] See e.g. Direct Testimony of Steve Brown at page 12, lines 1 though 8; page 12, lines 17 through 30; and page 15, lines 4 through 24.
[3] See Direct Testimony of Steve Brown page 1, lines 25 through 30.

Q. DO YOU AGREE WITH DR. BROWN'S APPROACH?

A. No, I do not. I disagree with Dr. Brown's use of "comparable companies" to establish the Company's capital structure. Moreover, I disagree with Dr. Brown's use of a 5-year historic period average to establish a capital structure, as well as with Dr. Brown's reliance on once-a-year 10-K reports as the single type of information that investors rely on in making investment decisions. Finally, I address the fact that Dr. Brown's recommendation is inconsistent with his prior recommendations, and inconsistent with Authority precedent regarding the Company's capital structure. Each of these disagreements with Dr. Brown's approach is detailed separately below.

A. Dr. Brown's "Comparable Company" Approach

Q. WHAT IS DR. BROWN'S STATED RATIONALE FOR USING THE EIGHT "COMPARABLE COMPANY" APPROACH AS A METHODOLOGY FOR THE ESTABLISHING THE CAPITAL STRUCTURE OF THE COMPANY?

A. Dr. Brown states that in the last Atmos rate case, TRA Docket 07-00105, he and Atmos' cost of capital witness Dr. Murry "'agreed' that these companies formed a reasonable basis of comparison"[4] and that "keeping these companies as a basis of comparison provides continuity for setting AEC's rates in Tennessee."[5]

Q. DO YOU AGREE WITH DR. BROWN'S RATIONALE?

A. No, I do not. First of all, Atmos' last rate case was settled, and nothing in the settlement agreement established any agreement on a group of comparable companies, so I am not sure of the point in time when Dr. Brown believes such an "agreement" was reached. Moreover, even if the same listing of companies was used for cost of capital purposes in that last Atmos rate case, that does not mean there was ever an "agreement" to use those companies as a basis to establish capital structure.

[4] See Direct Testimony of Steve Brown at page 3, lines 8 through 12.
[5] See Direct Testimony of Steve Brown at page 3, lines 12 though 14.

Q. HOW DID DR. BROWN DERIVE HIS CAPITAL STRUCTURE IN THE LAST ATMOS RATE CASE, DOCKET 07-00105?

A. Dr. Brown based his recommended capital structure on a 10-year average of the Company's historical capital structures reported in its annual report on Form 10-K filed with the Securities and Exchange Commission ("SEC"). However, for purposes of his averaging, he stated that he omitted the year in which the Company's acquisition of TXU Gas occurred, although the year he omitted was actually not the year in which the TXU Gas acquisition occurred.

Q. DID THE AUTHORITY ADOPT DR. BROWN'S CAPITAL STRUCTURE RECOMMENDATION IN DOCKET 07-00105?

A. Docket 07-00105 was resolved through a settlement agreement that was approved by the Authority with no specific finding made as to the methodology for determining capital structure.

Q. SINCE THE LAST RATE CASE, HAS ANYTHING CHANGED WITH ATMOS' CORPORATE STRUCTURE OR CAPITAL STRUCTURE THAT WOULD CAUSE ATMOS' OWN CAPITAL STRUCTURE TO NOT BE REFLECTIVE OF ITS APPROPRIATE CAPITAL STRUCTURE?

A. No.

Q. DO YOU AGREE THAT CAPITAL STRUCTURE SHOULD BE BASED UPON AN AVERAGE OF THE CAPITAL STRUCTURES OF "COMPARABLE COMPANIES"?

A. Not in cases where the actual capital structure of the entity for which rates are being set is already known or can be readily ascertained. If the Company were a wholly-owned utility subsidiary of a holding company, then such a methodology might prove beneficial in determining an appropriate capital structure for purposes of setting rates for the utility. However, Atmos Energy is not a holding company and, as I stated in my direct testimony, the capital structure of Atmos Energy (as the entity for which rates are being set in this proceeding) is the appropriate capital structure.

It is important to note, however, that there is an important distinction between the inappropriate use of "comparable companies" to establish a fictional capital

structure for a company such as Atmos that has an actual capital structure, and the appropriate use of "comparable companies" to recommend a return on equity as addressed by Dr. Vander Weide. As Dr. Vander Weide describes on page 2 of his direct testimony, it is appropriate to use a group of comparable companies to apply cost of equity methodologies because there is some degree of uncertainty surrounding the cost of equity for each company, and applying the cost of equity methodology to a group of comparable companies can reduce the uncertainty.

Q. WOULD THE USE OF ATMOS' ACTUAL CAPITAL STRUCTURE BE IN LINE WITH DR. BROWN'S STATED GOAL OF CONTINUITY IN SETTING RATES IN TENNESSEE?

A. While I note that the last Atmos rate case was settled with no finding made as to the methodology for establishing capital structure, because both Dr. Brown's and my recommended capital structures in that last rate case were based on the Company's actual capital structure, I submit that continuity would be achieved from a capital structure standpoint by utilizing the Company's own capital structure, as opposed to a fictional "comparable company" capital structure.

B. Dr. Brown's use of a 5-year historic period average to establish a capital structure

Q. DO YOU AGREE THAT A FIVE-YEAR AVERAGE IS APPROPRIATE?

A. No. I do not agree that a five year historic average of the *Company's* capital structure is appropriate to establish a capital structure for the attrition period, so it can certainly be said that I do not believe that a five year average of "*comparable company*" capital structures as reported on the 10-K annual reports filed with the SEC has any relationship to the Company's capital structure for the attrition period. While I believe that historic information related to Atmos Energy can suggest relevant trends and approaches toward capital structure, historic information for "comparable companies" indicates nothing of relevance to the capital structure of Atmos Energy. This can be seen from a review of the chart contained on page 33 of Dr. Brown's testimony. It is readily apparent that the "comparable companies" in the group exhibit a wide range of approaches to

capital structure. Some carry a large percentage of short term debt year after year. Others, more like Atmos Energy, carry little or none. Averaging these other companies says nothing about the capital structure of Atmos Energy. Averaging merely produces a hypothetical, as opposed to a real capital structure, and using an average of historic "comparable company" information as a basis for the Company's actual capital structure simply creates a fiction.

It is also noteworthy that the chart on page 33 indicates that some of the "comparable companies" have preferred stock, which Dr. Brown elects not to address in his testimony, but simply treat as one of the "remaining components … gathered into the long-term debt ratio."[6] Preferred stock is not simply another form of long-term debt. Dr. Brown's reclassification of preferred stock as long-term debt is inappropriate, and the fact that some of Dr. Brown's "comparable companies" issue preferred stock as a part of their capital structure is further evidence of the flaw in utilizing "comparable companies" to create a fictional capital structure for Atmos. To be clear, Atmos does not have preferred stock.

Q. WHILE DR. BROWN'S CAPITAL STRUCTURE RECOMMENDATION IS BASED ON HISTORIC AVERAGES OF THE CAPITAL STRUCTURES OF "COMPARABLE COMPANIES", DR. BROWN DOES MAKE SEVERAL STATEMENTS REGARDING ATMOS' STOCK ISSUANCE PRACTICES. ARE THESE STATEMENTS ACCURATE?

A. No, they are not. Dr. Brown's statement, on page 23, lines 10 through 18, that Atmos is issuing shares at a discount of up to 50% of market price is incorrect and misleading. Dr. Brown has misconstrued, or perhaps simply failed to understand, the historic information regarding stock option issuances that he extracted from the Company's 10-K reports.

When these stock options were issued, the "option price" of the option (i.e. the price at which the holder of the option has the right to buy shares of Atmos Energy common stock) was set based on the stock's full market value at that time. Once issued, stock options are typically exercised only when the current trading price of the Company's stock is higher than the option price. The information in

[6] See Direct Testimony of Steve Brown at page 1, lines 29 through 30.

the 10-K reports to which Dr. Brown refers simply shows the difference between the option price and the market price prevailing at the time the options were exercised. Further, these are shares that would not have been issued at all but for the exercise of the associated stock options. Therefore, when options are exercised, the Company is not "issuing stock at a discount;" it is issuing new shares at an option price equal to the full market price for the Company's stock as of the time the options were issued.

Interestingly, Dr. Brown cites with apparent approval the stock option policy of Northwest Natural Gas, as stated in that company's 2007 10-K report. On pages 24 and 25 of his testimony, Dr. Brown states: "AEC's policy of giving deep discounts contrasts with the policy of one comparable company, Northwest Natural Gas. Its policy is to set option prices equal to market prices on the date the option is granted: '*All options are granted at an option price not less than the market value at the date of grant and may be exercised for a period not exceeding 10 years from the date of grant.*' "

Dr. Brown appears to have somehow overlooked Atmos Energy's own stock option policy, as clearly stated in the Company's 2008 10-K report. On page 90 of that report, the Company's description of its 1998 Long-Term Incentive Plan states: "The option price of the stock options issued under this plan is equal to the market price of our stock at the date of grant. These stock options expire 10 years from the date of the grant and vest annually over a service period ranging from one to three years. However, no stock options have been granted under this plan since fiscal 2003, except for a limited number of options that were converted from bonuses paid under our Annual Incentive Plan, the last of which occurred in fiscal 2006."

Had Dr. Brown reviewed the Company's disclosures regarding stock options issued under its 1998 Long-Term Incentive Plan, he would have realized that not only is Atmos Energy's stock option policy virtually identical to that of Northwest Natural Gas, but that the Company has not even issued stock options pursuant to the Plan for some years now.

Additionally, Dr. Brown's statement on page 25, lines 28 through 32 that Atmos has issued a large portion of new stock to itself is also misplaced. Simply stated, Atmos does not issue stock to itself. While Atmos does issue common stock through the Company's various stock plans, these shares are issued to employees (for example, in the form of the Company's match of employees' contributions to the Retirement Savings Plan), or to shareholders who have elected to reinvest their dividends in new shares of the Company's common stock.

C. Dr. Brown's sole reliance on 10-K reports

Q. YOU MENTIONED THAT DR. BROWN BASED HIS CAPITAL STRUCTURE RECOMMENDATION ON 10-K REPORTS FILED BY "COMPARABLE COMPANIES" WITH THE SEC. DID DR. BROWN USE ANY OTHER HISTORICAL REPORTS FILED WITH THE SEC IN ARRIVING AT HIS CAPITAL STRUCTURE?

A. No. Dr. Brown suggests in his testimony, in this case at least, that the only reliable source for determining a publicly traded company's capital structure is its 10-K reports. The rationale he provides for this is that 10-Ks are audited by independent certified public accountants.

Q. DOES DR. BROWN PROVIDE ANY AUTHORITY FOR HIS CONCLUSION?

A. Yes. He provides some quotes from a 1984 United States Supreme Court opinion rendered in *United States v. Arthur Young & Co.*[7]

Q. DID YOU REVIEW THAT OPINION?

A. Yes. That case involved whether the accounting firm of Arthur Young, as the independent accountant for Amerada Hess Corp., was required to turn over its work papers to the Internal Revenue Service in connection with an audit the IRS was performing regarding Hess' income tax liability for the years 1972 through 1974. That case does not hold that, for purposes of setting rates for a public utility, a state regulatory agency should rely only on the utility's 10-Ks. My lay reading of that case is that the Court's discussion was in the context of whether

[7] 465 U.S. 805 (1984).

any form of privilege attached to the accountant's work papers that would serve as a basis for restricting the IRS' access to those papers. I do not believe that the Supreme Court's decision supports Dr. Brown's conclusion.

Q. DO YOU AGREE WITH DR. BROWN'S CONCLUSION THAT FORM 10-K IS THE ONLY RELIABLE SOURCE OF DATA?

A. No. More frequent and current data is available in the form of quarterly reports on Form 10-Q, which are also filed by the Company with the SEC. The SEC regulations require the pre-filing review of Forms 10-Q by an independent public accountant.[8] Additionally, the Sarbanes-Oxley Act of 2002 provides that the Company's chief executive officer and chief financial officer sign certifications with prescribed language (with potential civil and criminal penalties) for all periodic reports[9], including both the Forms 10-K and 10-Q.

Q. IS DR. BROWN CONSISTENT IN HIS POSITION THAT FORM 10-K IS THE ONLY RELIABLE SOURCE OF DATA?

A. No. In a recent Tennessee American Water case, Docket 08-00039, Dr. Brown utilized a 10-Q filing as a basis for recommending a capital structure.[10]

Q. ARE THE COMPANY'S FORMS 10-Q A RELIABLE DATA SOURCE THAT DR. BROWN SHOULD HAVE CONSIDERED?

A. Yes, they are.

Q. HAS THE AUTHORITY CONSIDERED INFORMATION IN 10-Qs IN OTHER RATE CASES?

A. Yes. In Docket No. 05-00258, the Authority adopted costs for short-term debt as reported by the Company in its June 30, 2006 10-Q.[11] In Docket No. 04-00034, a rate proceeding involving Chattanooga Gas Company, the Authority took official notice of 10-Q filings made by AGL Resources, Chattanooga's parent company[12], in connection with its reconsideration of capital structure issues in that proceeding.

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[8] 17 CFR §210.10-1(d).
[9] Required by Sections 302, 404(a) and 906 of the Act.
[10] See Direct Testimony of Steve Brown in Docket No. 08-00039 at pages 4 through 6.
[11] Motion of Director Miller in Docket 05-00258. at page 13.
[12] See Authority's decision dated November 1, 2005, in Docket 04-00034.

Q. WHAT IS THE EFFECT OF DR. BROWN'S UTILIZATION OF INFORMATION REPORTED ONLY IN 10-K FILINGS?

A. First, his use of only "comparable company" 10-K information simply creates a fictional capital structure that has no relevance to the Company. Further, five of Dr. Brown's eight "comparable companies" have fiscal years that end on December 31, so the most "current" information he utilizes for these five "comparable companies" is now over a year old. I hesitate to think that any investor who is considering an investment in a company would choose to ignore all of the economic impacts of the last year and focus solely on a dated 10-K report. Dr. Brown's single point in time focus, predicated upon an erroneous and unsupported assumption that 10-Ks are the only reliable source of investor data, produces a skewed capital structure that conveniently supports the CAPD's position advocating a lower equity ratio, weighted cost of capital, and rate of return for the Company.

D. Authority Precedent and Dr. Brown's Shifting Analysis

Q. IS DR. BROWN'S CAPITAL STRUCTURE ANALYSIS IN THIS PROCEEDING CONSISTENT WITH HIS ANALYSIS IN OTHER PROCEEDINGS?

A. No, although it appears that Dr. Brown has no standard methodology to determine capital structure as his methodology varies widely from case to case.

Q. PLEASE EXPLAIN.

A. As I mentioned previously, in the last Atmos rate case Dr. Brown did *not* use a comparable company approach to determine the Company's capital structure. Rather, he used a ten year average (minus an erroneously excluded year) of *Atmos Energy's* capital structure as reported in the 10-K reports. While Dr. Brown has recommended a "comparable company" approach for determining capital structure in other cases, these recommendations typically utilize a 3-year historic average of 10-K reported information rather than the more outdated 5-year timeframe Dr. Brown has elected to use in this case. Moreover, as I mentioned

previously in this rebuttal testimony, even Dr. Brown's use of Forms 10-K and 10-Q as a basis for his recommendation varies by case.

Q. WHAT CAPITAL STRUCTURE DID THE COMPANY ADVOCATE IN DOCKET NO. 05-00258?

A. The Company advocated the use of a 50/50 debt to equity capital structure in that proceeding because that was reflective of the Company's stated capitalization goals.[13] The Authority, however, did not agree because it did not see the Company attaining that goal until several more years beyond the end of the attrition period in that proceeding. As reported in the Company's 10-Q for the fiscal quarter ended March 31, 2008, the Company has achieved the targeted 50/50 capital structure. In 2008 Atmos followed its normal practice of funding a portion of its seasonal natural gas purchases with short-term debt. This activity was reflected as a small percentage of short-term debt for the fiscal quarter ending June 30, 2008, which continued to rise in the next two fiscal quarters in step with the seasonal timeframe for natural gas purchases and the elevated natural gas prices in the summer of 2008. I anticipate that the short-term debt percentage will now drop as we near the end of the heating season.

Q. WHAT WAS THE METHODOLOGY USED BY THE AUTHORITY STAFF IN FORMULATING A CAPITAL STRUCTURE IN DOCKET NO. 05-00258?

A. Staff began by relying on the Company's capital structure stated in its 2005 10-K as a starting point and then made projections up to September 30, 2006, to account for long-term debt maturities and projected value of new stock issuances.[14] In subsequent rebuttal testimony filed in that proceeding, Staff

[13] On p. 49 of its annual report on Form 10-K for the period ending September 30, 2005, the Company stated: *Within three to five years from the closing of the TXU Gas acquisition, we intend to reduce our capitalization ratio to a target range of 50 to 55 percent through cash flow generated from operations, continued issuance of new common stock under our Direct Stock Purchase Plan and Retirement Savings Plan, access to the equity capital markets and reduced annual maintenance and capital expenditures.* The Company again stated this goal on p. 52 of its annual report on Form 10-K for the period ending September 30, 2006. The acquisition of TXU Gas closed on October 1, 2004. The Company has achieved its targeted capitalization within three years of that date.

[14] See Direct Testimony of Jerry Kettles at pages 3 through 6 dated July 17, 2006 filed in TRA Docket 05-00258.

buttressed its capital structure arguments by referencing data from the Company's 10-Qs filed for the quarters ended March 31, 2006 and June 30, 2006.[15]

Q. DID THE AUTHORITY AGREE WITH STAFF'S PROPOSED CAPITAL STRUCTURE IN THAT PROCEEDING?

A. Yes. In Director Miller's motion filed in that docket, he states "I further find that the TRA Investigative Staff's methodology for estimating long-term debt and equity percentages is the most reasonable and best supported by the record in these proceedings".[16]

Q. DID THE AUTHORITY GIVE ANY INDICATION THAT A "COMPARABLE COMPANY" CAPITAL STRUCTURE SHOULD BE USED?

A. No, it did not.

Q. DID THE AUTHORITY GIVE ANY INDICATION THAT A HISTORIC FIVE YEAR AVERAGE SHOULD BE USED TO ESTABLISH A CAPITAL STRUCTURE?

A. No, it did not.

Q. IS THE COMPANY'S METHODOLOGY FOR ESTIMATING CAPITAL STRUCTURE IN THIS PROCEEDING COMPARABLE TO THAT EMPLOYED BY THE AUTHORITY STAFF IN DOCKET 05-00258?

A. Yes. As reflected in my direct testimony filed in this proceeding, the Company's beginning point for its capital structure analysis is the capital structure reported in its quarterly report on Form 10-Q for the fiscal quarter ended June 30, 2008. I then took into account the fact that the Company's use of short-term debt is seasonal in nature and is not intended to be used to finance additions to utility plant, so it should not be included in the Company's capital structure in this proceeding. I also confirmed that the Company expects the debt component of its capital structure to decline, and the equity component to increase, during the attrition period, due to ongoing issuances of common stock through the Company's various stock plans and the generation of earning in excess of

[15] See Rebuttal Testimony of Jerry Kettles at page 3 dated August 18, 2006 filed in TRA Docket 05-00258.
[16] Motion of Director Miller in Docket 05-00258 at page 12.

common dividends paid. Through this analysis I projected the Company's capital structure at the end of the attrition period to be comprised of 48.7% long-term debt and 51.3% equity. Since the projected long-term debt percentage was lower than the Company's stated target range, I then increased the long-term debt percentage to 50% in my direct testimony as the appropriate capital structure to be used for purposes of setting rates for the Company in this proceeding.

I would also note that I utilized a similar approach in my recommendation in Docket 07-00105[17], which was settled with no precedential capital structure guidance issued by the Authority.

Q. IS THE COMPANY'S METHODOLOGY FOR DETERMINING CAPITAL STRUCTURE MORE ACCURATE THAN THE METHOD EMPLOYED BY THE CAPD?

A. Yes. An important fundamental of this rate proceeding is that it is based upon forecasts. However, the CAPD's capital structure methodology focuses entirely on the past and entirely on once-a-year past reports of companies *other than Atmos*. Conversely, the Company's capital structure methodology makes a reasonable forecast of the future capital structure of Atmos itself, and is in line with the Authority's previous fully litigated decision on this matter.

III. SHORT-TERM DEBT AS A COMPONENT OF CAPITAL STRUCTURE

Q. ON WHAT BASIS DOES DR. BROWN INCLUDE SHORT-TERM DEBT IN CAPD'S PROPOSED CAPITAL STRUCTURE?

A. Dr. Brown's rationale to include short-term debt in CAPD's proposed capital structure is based on three arguments[18]. First, Dr. Brown quotes from a statement the Company made in its 2008 10-K filing. Second, he quotes from a statement that a Piedmont Gas representative made some years ago. Third, he relies on the fact that the Company included short-term debt in its consolidated balances on an SEC filing in December 2006.

[17] See Direct Testimony of Laurie Sherwood at page 1, lines 17 through 18 dated May 4, 2007, filed TRA Docket No. 07-00105 wherein I recommend a capital structure comprise of 51.5% long-term debt and 48.5% equity.

[18] See Direct Testimony of Steve Brown at page 20, line 6 through page 22, line 7.

Q. WHAT IS WRONG WITH DR. BROWN'S REASONING?

A. While I do agree that Dr. Brown accurately quotes a statement made in the Company's 2008 10-K report that the Company relies on both short-term and long-term credit markets to satisfy its liquidity requirement, I do not agree that the statement has any relevance to the Company's permanent capital structure. Simply stated, liquidity requirement is not synonymous with permanent capital structure. Liquidity requirements refer to a company's day-to-day and near term monetary demands, whereas the permanent capital structure of a company refers to its strategic long-term funding approach to capital investments including, in the case of a utility, rate base investments.

Dr. Brown's second argument is based upon a statement made by a Piedmont representative that short-term capital can be used for any purpose. Again, there is no disagreement about the accuracy of the statement. My disagreement is with the fact that while the Company could in theory use short-term capital for any purpose, the Company does not in practice use short-term capital for any purpose. The Company has a single, traditional use of short-term capital, and that is to fund seasonal gas purchases.

Dr. Brown's third and final misplaced argument for representing that short-term debt is a permanent part of Atmos' capital structure is that the Company included short-term debt in its consolidated balances in a December 2006 SEC filing that is based on fiscal year ending data. Again, there is no dispute about the accuracy of the representation. However, that fact does not in-and-of-itself mean that short-term debt is a part of the Company's permanent capital structure. As I stated previously and demonstrated in my pre-filed testimony where I discussed the Company's 10-K and 10-Q reported short-term debt levels for the last four years,[19] the Company has a single, traditional use of short-term capital, and that is to fund seasonal gas purchases. These purchases typically begin ramping up in the last quarter of each fiscal year (July 1 through September 30) so that, by the time the fiscal year end report is made, short-term debt has already become elevated.

[19] The reports span the time frame of July 1, 2004 through June 30, 2008.

Q. WHAT IS DR. BROWN'S RECOMMENDED SHORT-TERM DEBT RATIO FOR INCLUSION IN CAPITAL STRUCTURE?

A. Dr. Brown recommends that short-term debt comprise 13.1% of capital structure.[20]

Q. DO YOU AGREE WITH THE RECOMMENDATION?

A. No, I do not. Again, short-term debt is not a part of the Company's permanent capital structure. The absurdity of the 13.1% recommendation is underscored by reviewing the information I included in my direct testimony, which clearly shows that in no 10-K or 10-Q report that the Company has made in the last four years has short-term debt ever been reported at that level. In fact, one would have to look back seven years to the fiscal quarter ending December 31, 2001, to find a fiscal quarter ending short-term debt level at that level for Atmos.

Q. WHAT BASIS DOES DR. BROWN USE FOR RECOMMENDING SHORT TERM DEBT AT THAT LEVEL?

A. Dr. Brown uses the five year historic 10-K average of eight "comparable companies." For the reasons I have previously described, such an approach is fatally flawed because it ignores the short-term debt philosophy of the Company. Further, Dr. Brown's recommendation is based on a selective and unrepresentative "snapshot" (i.e. looking only at a single point in a year), which results from his reliance solely on annual 10-K reports. The error of this approach is then exacerbated by utilizing five historic years of such "snapshot" information, and then making the leap of faith assumption that actions of other companies from years ago serve as a valid proxy for the short-term debt capital structure of Atmos in the future.

Q. IN PRIOR ATMOS CASES BEFORE THE AUTHORITY, HAS DR. BROWN MADE SIMILAR SHORT-TERM DEBT RECOMMENDATIONS?

A. Yes. In docket 05-00258 Dr. Brown recommended a short-term debt component of 12.6%[21] and in Docket 07-00105 Dr. Brown recommended a short-term debt component of 11.3%.[22]

[20] See Direct Testimony of Steve Brown at page 1, line 28.

Q. DID THE AUTHORITY ACCEPT DR. BROWN'S RECOMMENDATIONS IN DETERMINING A CAPITAL STRUCTURE FOR THE COMPANY IN THOSE PROCEEDINGS?

A. No. As I mentioned previously, the Authority approved a settlement in Docket 07-00105, so no determination was made by the Authority concerning Dr. Brown's recommendations in that docket. In Docket 05-00258, although the Authority did determine that a 3.59% short-term debt capital structure component was appropriate, the Authority also concluded that the Company's use of short-term debt was seasonal in nature.

Q. SHOULD THE AUTHORITY INCLUDE A COMPONENT OF SHORT-TERM DEBT IN THE COMPANY'S CAPITAL STRUCTURE FOR PURPOSES OF THIS PROCEEDING?

A. No. As reflected in my direct testimony and previously in this rebuttal testimony, the Company's use of short-term debt is seasonal in nature. I explained in my direct testimony why the Company's short-term debt levels were elevated during the period of October 2005 through December 2006. Short-term debt levels in more recent quarters comport with the Company's use of short-term debt to fund seasonal gas purchases. When natural gas prices are at elevated levels, the Company's seasonal short-term debt percentages will be correspondingly higher, but these levels customarily drop significantly once the heating season is over.

Q. HAS THE COMPANY'S RECENTLY REPORTED 10-Q FOR THE QUARTER ENDING DECEMBER 31, 2008 ALTERED YOUR POSITION THAT SHORT-TERM DEBT IS NOT A PERMANENT PART OF THE COMPANY'S CAPITAL STRUCTURE?

A. No. The Company's short-term debt balance customarily peaks each year during the quarter ended December 31, and this year has been no exception. This does not change the seasonal nature of our short-term debt balances, or our practice of not using short-term debt to finance additions to utility plant.

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[21] See Direct Testimony of Steve Brown in Docket 05-00258 at page 2, line 22.
[22] See Direct Testimony of Steve Brown in Docket 07-00105 at page 2, lines 22 through 23.

Q. IF THE AUTHORITY SHOULD DECIDE OTHERWISE, WHAT LEVEL OF SHORT-TERM DEBT SHOULD BE INCLUDED IN THE COMPANY'S CAPITAL STRUCTURE?

A. Although the Company is not advocating the inclusion of short-term debt in its capital structure, I recognize that the Authority has shown a tendency to include some element of short-term debt in utility capital structures for ratemaking purposes. This is merely a factual acknowledgement, not an indication that the Company agrees with those results. If the Authority should decide that the record evidence does not support the Company's position regarding short-term debt, then an easy way to determine a level of short-term debt for ratemaking purposes would be to add the average amount of short-term debt outstanding during the attrition period (as shown on my Exhibit LMS-R-1) to the Company's capital structure as of the end of the attrition period (as shown on page 5 of my direct testimony) and then calculate the resulting percentage of short-term debt. That percentage is 2.4%, as shown in the following table ($ in thousands).

L-T Debt[23]	S-T Debt	Total Debt	Shareholders' Equity	Total
$2,120,316	$ 105,033	$2,225,349	$2,234,353	$4,459,702
47.5%	2.4%	49.9%	50.1%	100.0%

IV. COST OF DEBT

Q. DOES DR. BROWN RECOMMEND A COST OF SHORT-TERM DEBT?

A. Yes. Dr. Brown opines that the appropriate cost of short-term debt is 2.5%.[24]

Q. HOW DID DR. BROWN CALCULATE SHORT-TERM DEBT COSTS?

A. Dr. Brown apparently went to bankrate.com and pulled three short-term LIBOR rates (one month, three months, and six months) as of December 31, 2008.[25] He then averaged those rates and added 1.25%, based on a statement issued by

[23] Includes current maturities.
[24] See Direct Testimony of Steve Brown at page 1, line 32.
[25] See Direct Testimony of Steve Brown chart on page 14.

Piedmont Gas that their mark-up to LIBOR rates is in the range of .75% to 1.75%.[26]

Q. HOW DID YOU CALCULATE THE PROJECTED COST OF SHORT-TERM DEBT?

A. In my direct testimony (filed October 15, 2008), I projected an annualized short-term debt amount of approximately $105 million for the attrition period. I then used the forecasted average LIBOR rate for 2009 and determined an interest rate of 5.00%, for an effective annual interest cost of $5.252 million. I calculated effective annual credit facility arrangement fee costs of $410,000 and effective annual credit facility commitment fee costs of $805,000, for a total effective annual interest cost of $6.467 million. The effective annual short-term debt cost was then divided by the average projected short-term debt outstanding for the attrition period ($6.467 million / $105 million) to yield a composite interest rate of 6.16%.

Taking into account the recent events in the financial markets, for this rebuttal testimony I determined it appropriate to revise the cost of short-term debt. The Company now estimates a forecasted average LIBOR rate for the attrition period of 3.00%. This reduction in the forecasted LIBOR rate was partially offset by increases in the fees the Company has incurred in order to renew one of its credit facilities. Taken together, these revisions result in an updated short-term debt cost of 5.10% as reflected on the attached schedule LMS-R-1.

Q. WHY DO YOU INCLUDE ANNUAL ARRANGEMENT FEE COSTS AND ANNUAL COMMITMENT FEE COSTS IN THE COST OF SHORT-TERM DEBT?

A. Fees paid to arrange and maintain credit facilities are an integral part of the Company's short-term debt costs, because the Company would be unable to borrow short-term debt if these credit facilities were not in place. The fees represent costs of borrowing that are components of the actual short-term interest rate and are properly included in the short-term interest rate calculation. Dr. Brown's calculation of a short-term debt cost excluding arrangement fee costs and

[26] See Direct Testimony of Steve Brown at page 22, lines 13 through 16.

commitment fee costs indicates, at best, a lack of awareness of actual lending practices in the short-term credit markets.

Q. DOES THE COMPANY'S COMPOSITE RATE APPROACH TO FORECASTING SHORT-TERM DEBT COSTS MORE ACCURATELY REFLECT THE ACTUAL COST THE COMPANY WILL INCUR PROSPECTIVELY?

A. Yes. As opposed to taking Dr. Brown's simplistic approach, which is not based on credit market reality, the Company has provided a projection of what its composite short-term debt costs will be for the forward-look period.

Q. DOES DR. BROWN RECOMMEND A LONG-TERM DEBT COST?

A. Dr. Brown accepts the long-term debt cost that I recommended in my direct testimony.[27]

Q. HOW DID YOU CALCULATE THE LONG-TERM DEBT COST?

A. As reflected on the Exhibits LMS-1 and LMS-2, which are attached to my direct testimony, I calculated an average annualized long-term debt cost as of June 30, 2008 and March 31, 2010. One component of the long-term debt cost is a $400,000,000 note at a 4% interest rate that is due on October 15, 2009. Taking into account the recent events in the financial markets, it is appropriate to update our anticipated debt issuance rate for that debt offering. This known change results in a revision in the Company's recommended long-term debt cost as reflected on my Exhibit LMS-R-2 and increases the recommended long-term debt cost to 6.38%.

Q. DOES THE COMPANY'S UPDATED COMPOSITE RATE APPROACH TO FORECASTING LONG-TERM DEBT COSTS ACCURATELY REFLECT THE ACTUAL COST THE COMPANY WILL INCUR PROSPECTIVELY?

A. Yes, it does.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[27] See Direct Testimony of Steve Brown at page 22, lines 20 through 22.

Atmos Energy Corporation
Docket No. 08-00197
AVERAGE ANNUALIZED SHORT-TERM DEBT
as of March 31, 2010
Rates & Fees Updated February 3, 2009

EXHIBIT LMS-R-1

	ISSUE	Amount OUTSTANDING	Interest Rate	EFFECTIVE ANNUAL Cost	COMPOSITE Interest Rate
	(A)	(B) $000	(C)	(D) $000	(E=D/B)
1	Average SHORT-TERM DEBT (1)	$ 105,033	3.00%	$ 3,151	
2	ARRANGEMENT FEE (2)			$ 976	
3	COMMITMENT FEE (3)			$ 1,234	
4	Total SHORT-TERM DEBT	$ 105,033		$ 5,361	5.10%

NOTES:
(1) Interest Rate is the forecasted average rate for the attrition period.
(2) Amortization of Arrangement fees over 5 years for $600 million line of credit, and over one year for $212.5 million line of credit.
(3) Commitment fees associated with $812.5 million line of credit averaging .15185% on the unused portion, calculated using 360-day convention.

Atmos Energy Corporation
Docket No. 08-00197
AVERAGE ANNUALIZED LONG-TERM DEBT
as of March 31, 2010
Re-finance Rate Updated February 3, 2009

EXHIBIT LMS-R-2

Line No.	ISSUE		13 Mth Average Amount OUTSTANDING	Interest Rate	EFFECTIVE ANNUAL Cost	COMPOSITE Interest Rate
	(a)		(b)	(c)	(d)	(e=d/b)
1	10.43% First Mortgage Bond P due 2017 (eff 2012)		$0			
2	10% Senior Notes due Dec 2011		1,151,654	10.000%	115,165	
3	10% Senior Notes due Dec 2011		1,151,654	10.000%	115,165	
4	6.75% Debentures Unsecured due July 2028		150,000,000	6.750%	10,125,000	
5	7.375% Senior Notes due May 2011		350,000,000	7.375%	25,812,500	
6	5.125% Senior Notes due Feb 2013		250,000,000	5.125%	12,812,500	
7	6.67% MTN A1 due Dec 2025		10,000,000	6.670%	667,000	
8	6.27% MTN A2 due Dec 2010		10,000,000	6.270%	627,000	
9	6.35% Sr Note, due 2017		250,000,000	6.350%	15,875,000	
10	4.00% Sr Note due 10/15/2009		246,153,846	4.000%	9,846,154	
11	4.95% Sr Note due 10/15/2014		500,000,000	4.950%	24,750,000	
12	5.95% Sr Note due 10/15/2034		200,000,000	5.950%	11,900,000	
13	Projected $400 Million Re-financing	[1]	153,846,154	8.000%	12,307,692	
14	Industrial Develop Revenue Bond 07/13		528,845	7.900%	41,779	
15	Atmos Power Sys - Wells Fargo 05/08		0			
16	US Bancorp - 04/09		7,277	5.290%	385	
17	Pulaski – Ingas, Ingram & Carvell 06/08		0			
18						
19	Annualized Amortization of Debt Exp. & Debt Dsct.				10,287,278	
20	Less Unamortized Debt Discount		(2,523,157)			
	Total LONG-TERM DEBT		$2,120,316,273		$135,282,618	6.38%

[1] The Company projects it will refinance the $400 million Sr. Note which matures on 10/15/09 at a rate of 8.0%.

BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE

IN RE:

PETITION OF ATMOS ENERGY	**)**	
CORPORATION FOR APPROVAL OF	**)**	
ADJUSTMENT OF ITS RATES AND	**)**	
REVISED TARIFF	**)**	**DOCKET NO. 08-00197**

JAMES H. VANDER WEIDE, PH.D.

RATE OF RETURN

ATMOS ENERGY CORPORATION
RATE OF RETURN

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ATMOS ENERGY CORPORATION

I. Introduction and Summary

Q. 1 Please state your name, title, and business address for the record.

A. 1 My name is James H. Vander Weide. I am Research Professor of Finance and Economics at Duke University, The Fuqua School of Business. I am also President of Financial Strategy Associates, a firm that provides strategic and financial consulting services to business clients. My business address is 3606 Stoneybrook Drive, Durham, North Carolina 27705.

Q. 2 Are you the same James H. Vander Weide who previously provided direct testimony in this proceeding?

A. 2 Yes, I am.

Q. 3 What is the purpose of your rebuttal testimony?

A. 3 I have been asked by Atmos Energy Corporation ("Atmos Energy" or "Company") to review the direct testimony of Dr. Steve Brown on behalf of the Consumer Advocate and Protection Division, Office of the Tennessee Attorney General, and to assess his studies and conclusions regarding Atmos Energy's cost of equity.

Q. 4 What issues will you address in your testimony?

A. 4 I will address Dr. Brown's: (1) proxy companies; (2) DCF model; (3) estimate of investors' growth expectations; (4) statements about the effect of current economic conditions on the cost of equity; and (5) rebuttal of my direct testimony.

II. Rebuttal of Dr. Brown's Direct Testimony

A. Proxy Companies

Q. 5 How did Dr. Brown estimate Atmos Energy's cost of equity?

A. 5 Dr. Brown estimated Atmos Energy's cost of equity by applying the discounted cash flow ("DCF") model to a proxy group of gas utilities.

Q. 6 What proxy group of gas utilities did Dr. Brown use to estimate Atmos Energy's cost of equity?

A. 6 Dr. Brown used a proxy group of Value Line gas utilities, including AGL Resources, New Jersey Resources, NICOR, Northwest Natural Gas, Piedmont Natural Gas, Southwest Gas, South Jersey Industries, and WGL Holdings.

Q. 7 How did Dr. Brown select companies for inclusion in his proxy company group?

A. 7 Dr. Brown chose the companies in his proxy company group based on the criteria that a company must: be included in the Value Line Natural Gas Utility Industry Group and derive most of its income from regulated natural gas distribution activities. (Brown at 2.)

Q. 8 What is the purpose of proxy selection criteria?

A. 8 The purpose of proxy selection criteria is to identify the largest possible group of comparable risk companies that have sufficient data to reliably apply cost of equity methodologies such as the DCF, CAPM, and risk premium.

Q. 9 Why is it desirable to choose a relatively large group of comparable risk companies?

A. 9 It is desirable to choose a relatively large group of comparable risk companies because the estimate of the cost of equity obtained from applying cost of equity methodologies to a single company is uncertain. Cost of equity methodologies such as the DCF, CAPM, and risk premium require estimates of quantities such as growth rates, betas, and expected risk premiums that necessarily involve a degree of uncertainty. However, the uncertainty in estimating the cost of equity by applying cost of equity methodologies to a single company can be significantly reduced by applying cost of equity models to a relatively large group of comparable risk companies. Intuitively, any over and under-estimate of the cost of equity that arises from the application of cost of equity methods to a single company is averaged out by applying the methods to a larger group of comparable risk companies. In addition, the choice of a relatively small group of proxy companies requires a great deal of judgment. When an analyst applies judgment to select a small group of companies, he or she may be tempted to choose a set of selection criteria that produce a desired result. The analyst can eliminate the possibility of selection bias by starting with the largest possible

group of comparable risk companies and eliminating only those companies with insufficient data to estimate the cost of equity.

Q. 10 Do Dr. Brown's proxy company selection criteria produce the largest possible group of comparable risk companies that have sufficient data to reliably apply cost of equity methodologies?

A. 10 No. Dr. Brown's proxy company selection criteria cause him to exclude five Value Line natural gas utilities that are similar in risk to Atmos, including Energen, Equitable Resources, National Fuel Gas, ONEOK, and Questar.

Q. 11 Can you briefly describe the regulated natural gas operations of Energen, Equitable Resources, National Fuel Gas, ONEOK, and Questar?

A. 11 Yes. Energen's natural gas utility subsidiary, Alabama Gas Corporation, sells and distributes natural gas to 450,000 customers in central and northern Alabama, including Birmingham and Montgomery. Equitable Resources distributes natural gas to 275,000 customers in parts of Pennsylvania, West Virginia, and Kentucky; and the company operates 7,500 miles of regulated pipelines in those three states and Virginia. National Fuel Gas distributes gas to 725,000 customers in western New York and northwestern Pennsylvania; and operates regulated gas pipelines that transport gas between Pennsylvania and the New York/Canadian border near Buffalo. ONEOK has more than two million gas distribution customers in Oklahoma, Kansas, and Texas, and is the general partner in ONEOK Partners, which operates numerous inter- and intrastate regulated natural gas pipelines throughout the central United States. Questar Corporation is the holding company for Questar Gas, a natural gas utility that serves more than 870,000 customers in Utah, Wyoming, and Idaho; and is also the holding company for Questar Pipeline that operates 2,500 miles of natural gas pipelines serving the Rocky Mountain producing basin.

Q. 12 Do financial information companies such as Standard & Poor's and Thomson Reuters include Energen, Equitable Resources, National Fuel Gas, ONEOK, and Questar in their natural gas utility groups?

A. 12 Yes. Standard & Poor's, as well other financial firms such as Thomson Reuters include all five of these companies in their natural gas utility groups. The Standard & Poor's gas utility group is shown below in Table 1.

TABLE 1
STANDARD & POOR'S GAS UTILITY GROUP1

AGL Resources
Atmos Energy
Energen Corp.
Equitable Resources
Laclede Group
National Fuel Gas
New Jersey Resources
NICOR
Northwest Natural Gas
ONEOK Inc.
Piedmont Natural Gas
Questar Corp.
South Jersey Industries
Southern Union
Southwest Gas
UGI Corp.
WGL Holdings

Q. 13 Does Atmos Energy itself consider companies such as Energen, Equitable Resources, National Fuel Gas, ONEOK, and Questar to be among its peer companies?

A. 13 Yes. Atmos specifically includes Equitable Resources, ONEOK, and Questar in the New Comparison Company Index which Atmos uses to evaluate its stock market performance. As described by Atmos, the New Comparison Company Index

> is comprised of natural gas distribution companies with similar revenues, market capitalizations and asset bases to that of the Company.

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1 See *Standard & Poor's Industry Survey*, "Natural Gas Distribution," June 19, 2008.

> ...The New Comparison Company Index contains a hybrid group of utility companies, ***primarily natural gas distribution companies***, recommended by a global management consulting firm and approved by the Board of Directors.[2] [Emphasis added.]

Q. 14 Dr. Brown claims that Energen, Equitable, ONEOK, and Questar "are akin to domestic oil companies." [Brown at 3.] Do you agree with Dr. Brown's characterization of these companies?

A. 14 No. As noted above, Energen, Equitable, ONEOK, and Questar are considered by the financial community to be natural gas utilities. Their annual reports indicate that they receive minimal income from the sale of oil.

Q. 15 Dr. Brown claims that you are aware that Equitable, ONEOK, and Questar derive less than half of their income from natural gas distribution activities. [Brown at 6.] Is he correct?

A. 15 Yes. I am aware that these companies receive less than half of their income from natural gas distribution. However, I am also aware that these companies receive a significant percent of their income from regulated natural gas transmission activities and that natural gas distribution and transmission are "essential" to their overall business strategy.[3] Furthermore, the financial community considers these companies to be natural gas utilities.

Q. 16 Does each of Dr. Brown's comparable companies satisfy his proxy company selection criteria?

A. 16 No. Although Dr. Brown acknowledges that New Jersey Resources ("NJR") derives only 37 percent of its income from regulated natural gas distribution activities, he nonetheless includes New Jersey Resources in his comparable group for the purpose of estimating Atmos Energy's cost of equity. [Brown at 9.]

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2 Atmos Energy Form 10-K 2008, filed November 19, 2008, for the period ending September 30, 2008, p. 31. Atmos Energy's New Comparison Company group is identical to its Old Comparison Company group with the exception that Integrys Energy Group, Inc. has been added to the New Comparison Company group.

3 As discussed below, Dr. Brown includes News Jersey Resources in his proxy group even though it has less than half its income from gas distribution on the grounds that its non-natural gas distribution activities are "essential" to the overall business strategy.

Q. 17 How does Dr. Brown justify his inclusion of NJR in his comparable group when NJR does not satisfy his proxy company selection criteria?

A. 17 Dr. Brown claims that NJR has an unregulated subsidiary, NJR Energy Services ("NJRES"), which accounts for 60 percent of NJR's operating income but is essentially in the same line of business as NJR's regulated natural gas distribution business. In fact, Dr. Brown claims that NJRES is the "asset manager" for NJR's regulated utility business. [Brown at 9.]

Q. 18 Is NJRES essentially in the same line of business as NJR's regulated natural gas distribution business?

A. 18 No. NJR's regulated natural gas distribution business delivers natural gas to customers in New Jersey over a capital intensive network of gas distribution facilities that are entirely owned by the regulated utility. In contrast, NJRES owns few physical assets; rather, it provides energy services to non-affiliated utilities and electric generation facilities. In its annual report, NJR describes its NJRES business segment as follows:

> NJRES incorporates the following elements to provide for growth, while focusing on maintaining a low-risk operating and counterparty credit profile:
>
> > Providing natural gas portfolio management services to nonaffiliated utilities and electric generation facilities;
> >
> > Leveraging transactions for the delivery of natural gas to customers by aggregating the natural gas commodity costs and transportation costs in order to minimize the total cost required to provide and deliver natural gas to NJRES' customers. This is accomplished by identifying the lowest cost alternative with the natural gas supply, transportation availability and markets which NJRES is able to access through its business footprint and contractual asset portfolio;
> >
> > Identifying and benefiting from variations in pricing of natural gas transportation and storage assets due to location or timing differences of natural gas prices to generate financial margin; and

> Managing economic hedging programs that are designed to mitigate adverse market price fluctuations in natural gas transportation and storage commitments.[4]

Q. 19 Is NJRES the "asset manager" for NJR's regulated utility business?

A. 19 No. As described above, NJRES provides natural gas portfolio services to non-affiliated utilities and electric generation facilities.

Q. 20 What comparable companies did you use to estimate Atmos Energy's cost of equity?

A. 20 I used the eleven natural gas utilities shown in Schedule 1 of my direct testimony. As I describe in my direct testimony,

> I select all the companies in Value Line's groups of natural gas companies that provide local distribution service and: (1) paid dividends during every quarter of the last two years; (2) did not decrease dividends during any quarter of the past two years; (3) have at least two analysts included in the I/B/E/S mean growth forecast; (4) have an investment grade bond rating and a Value Line Safety Rank of 1, 2, or 3; and (5) have not announced a merger. [Vander Weide Direct at 16.]

Q. 21 How does the average risk of your proxy company group compare to the risk of investing in Atmos Energy?

A. 21 My proxy natural gas utilities group has approximately the same risk as Atmos Energy, with approximately the same S&P bond rating and Value Line Safety Rank as Atmos Energy. [Vander Weide Direct at 18 and Schedule 1].

Q. 22 How does the average risk of your proxy company group compare to the average risk of Dr. Brown's proxy gas utility group?

A. 22 My proxy company group also has approximately the same average S&P bond rating and Value Line Safety Rank as Dr. Brown's proxy gas utility group.

Q. 23 Since your group is approximately equal in risk to the risk of Dr. Brown's gas utility group, why should the Commission accept your proxy company group rather than Dr. Brown's proxy gas utility group for the purpose of estimating Atmos Energy's cost of equity?

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4 New Jersey Resources Corporation Form 10-K for the year ending September 30, 2008, filed November 24, 2008, p. 7.

A. 23 The Commission should use my proxy company group for the purpose of estimating the cost of equity for Atmos Energy because my group: (1) includes more companies than Dr. Brown's proxy company group; and (2) consists of gas utilities that have higher market capitalizations and hence are more widely followed in the investment community than Dr. Brown's proxy companies. For example, at the time of my testimony, only six of the companies in Dr. Brown's proxy natural gas utility group had two or more analysts providing growth forecasts. The availability of analysts' forecasts is an important consideration in selecting a comparable company group, because the growth forecast is a significant element in the DCF-based cost of equity. Growth forecasts are considered to be more reliable if there are more analysts contributing to the mean growth forecast.

B. DCF Model

Q. 24 What is the DCF approach to estimating the cost of equity?

A. 24 The DCF approach is based on the assumption that a company's stock price is equal to the present (or discounted) value of the cash flows (or dividends) investors expect to receive from owning the stock. Assuming that dividends are received only at the end of each year and grow at a constant annual rate, g, the DCF approach implies that the cost of equity can be estimated from the equation $k = D_1/P_s + g$, where k is the cost of equity, D_1 is the *expected* next period annual dividend, P_s is the current price of the stock, and g is the constant annual growth rate in earnings, dividends, and book value per share. The term D_1/P_s is called the expected dividend yield component of the annual DCF model, and the term g is called the growth component of the annual DCF model. When dividends are paid quarterly, the annual DCF model must be modified to correctly account for the quarterly payment of dividends.

Q. 25 What DCF model does Dr. Brown use to estimate Atmos Energy's cost of equity?

A. 25 Dr. Brown uses the annual DCF model to estimate Atmos Energy's cost of equity.

Q. 26 What is the basic assumption of the annual DCF model?

A. 26 The annual DCF model is based on the assumption that companies only pay dividends at the end of each year, rather than at the end of each quarter.

Q. 27 Does the annual DCF model provide accurate estimates of an investor's required or expected rate of return from investing in a firm's stock?

A. 27 No. The annual DCF model of stock valuation produces correct estimates of an investor's required or expected rate of return only if the firm pays dividends just once a year. Since most companies pay dividends quarterly, the annual DCF model produces downwardly-biased estimates of an investor's required or expected rate of return. Investors can expect to earn a higher annual effective return on an investment in a firm that pays quarterly dividends than in one that pays the same amount of dollar dividends once at the end of each year.

Q. 28 Notwithstanding your disagreement with Dr. Brown's decision to use an annual DCF model, did Dr. Brown implement his annual model correctly?

A. 28 No. The basic assumptions of the annual DCF model are that: (1) dividends are received annually, (2) the first dividend will be received one year from now; and (3) dividends grow at a constant annual rate. Thus, the first dividend must be obtained by taking the indicated dividend, D_0, and multiplying by one plus the growth rate, "g." Rather than obtaining the first dividend from the equation $D_1=D_0(1+g)$, Dr. Brown simply uses the average dividend for the last six months as his estimate of the dividend, D_1, to be received one year from now.

Q. 29 Dr. Brown claims that he relies on the DCF model because it "approximates the real cash flow to investors and is not tied to hypothetical capital gains which create cash flow burdens which must be supported by AEC's Tennessee ratepayers." [Brown at 39.] Does Dr. Brown correctly characterize the DCF model?

A. 29 No. Dr. Brown completely mischaracterizes the DCF model. First, the DCF model assumes that a company's current stock price is equal to the present value of the future cash flows that investors *expect* to receive from owning the company's stock. Thus, rather than "approximating" "real cash flow[s]," the DCF model reflects *expected future cash flows* that are not yet realized, and thus must necessarily be forecasted. Second, because the DCF model assumes that

dividends, earnings, cash flows, and stock prices all grow at the same rate in the long run, the growth component of the DCF model reflects the capital gains investors expect to receive from their ownership of the stock. Contrary to Dr. Brown's assertion that the DCF model is not tied to hypothetical capital gains, the DCF model is based on forecasted capital gains from stock ownership. Third, Dr. Brown mischaracterizes capital gains as creating "cash flow burdens" for Tennessee ratepayers. Capital gains are an essential part of the investors' expected and required rate of return from stock ownership. If, as Dr. Brown suggests, the DCF model is somehow implemented without consideration of capital gains, investors would be unable to earn their required rate of return on investment. However, the U. S. Supreme Court requires that the allowed rate of return for public utilities be commensurate with returns investors expect to receive on other investments of comparable risk, which necessarily include capital gains.

C. Dr. Brown's Estimate of Investors' Growth Expectations

Q. 30 How does Dr. Brown estimate the growth component of his DCF model?

A. 30 Dr. Brown estimates the growth component of his DCF model by calculating the five-year average of historical growth in dividends per share ("DPS") for each of his comparable companies.

Q. 31 Does Dr. Brown correctly calculate the five-year average historical growth in dividends per share ("DPS") for each of his comparable companies?

A. 31 No. Dr. Brown miscalculates the historical growth in dividends per share for South Jersey Industries, understating the company's five-year historical dividend growth by 100 basis points.

Table 2
Correction of Dr. Brown's Dividend Growth
Calculation for South Jersey Industries

YEAR	2002	2003	2004	2005	2006	2007	5-YR. AVERAGE GROWTH
Dividend	0.76	0.78	0.82	0.86	0.92	1.01	
Dr. Brown's Growth Year to Year		2.6%	1.9%	8.9%	5.8%	5.5%	4.9%
Correct Growth Year to Year		2.6%	5.1%	4.9%	7.0%	9.8%	5.9%

Q. 32 In addition to historical dividend per share growth ("DPS"), does Dr. Brown also examine historical growth in earnings per share ("EPS"), cash flow per share ("CFPS"), and book value per share ("BVPS") for his comparable companies?

A. 32 No, he does not. Dr. Brown only calculates his comparable companies' historical growth in dividends per share.

Q. 33 Assuming that Dr. Brown wanted to rely entirely on historical growth rates, would it have been more reasonable for him to examine historical growth in EPS, CFPS, and BVPS in addition to historical growth in DPS?

A. 33 Yes. It would have been reasonable for Dr. Brown to examine historical growth in EPS, CFPS, and BVPS, as well as DPS, because the DCF model assumes that DPS, EPS, CFPS, and BVPS all grow at the same rate in the future. Thus, to forecast future growth based on historical data, one should examine historical growth in each of these variables, not just DPS alone.

Q. 34 Have you calculated the average five-year historical growth in earnings per share, cash flow per share, and book value per share for Dr. Brown's comparable companies?

A. 34 Yes. As shown below, the average historical growth in earnings per share for Dr. Brown's comparable companies is 9.6 percent, for cash flow per share, 6.5 percent, and book value per share, 7.8 percent.

Q. 35 What DCF results would Dr. Brown have obtained if he had added his 3.8 percent dividend yield to the historical growth rates in earnings, cash flow, and book value per share for his comparable companies?

A. 35 If Dr. Brown had used historical growth rates in earnings, cash flow, and book value per share for his comparable companies, and had also correctly multiplied the dividend yield by the term (1 + g), he would have obtained DCF results equal to 13.80 percent, 10.55 percent, and 11.93 percent, results that exceed his unreasonably low 7.6 percent DCF cost of equity by approximately 300 to 600 basis points.

Table 3
DCF Result for Dr. Brown's Comparable Companies
Using Five-year Historical Growth in DPS, EPS, CFPS, and BVPS

CATEGORY	FIVE-YEAR HISTORICAL GROWTH	DIVIDEND YIELD	ADJUSTED DIVIDEND YIELD	COST OF EQUITY
Dividends	3.80%	3.80%	3.94%	7.74%
Earnings	9.63%	3.80%	4.17%	13.80%
Cash Flow	6.50%	3.80%	4.05%	10.55%
Book Value	7.83%	3.80%	4.10%	11.93%

Q. 36 Do you agree with Dr. Brown's use of historical growth rates to estimate the growth component of the DCF model?

A. 36 No. The DCF model requires the growth forecasts of investors, not the growth forecasts of Dr. Brown. As described below, my studies indicate that a company's stock price is more highly correlated with analysts' growth rates than with historical growth rates. The correlation between analysts' growth rates and stock prices indicates that investors use the analysts' growth rates in making stock buy and sell decisions.

Q. 37 How do you recommend estimating the future growth component in the DCF model?

A. 37 As described in my direct testimony, I recommend using the analysts' forecasts published by I/B/E/S Thomson Reuters.

Q. 38 Why do you believe that the analysts' forecasts of earnings growth are more accurate indicators of investors' growth expectations than the growth estimates provided by Dr. Brown?

A. 38 Security analysts analyze the prospects of companies and forecast earnings. They take into account all of the historical and current data that Dr. Brown

mentions plus any additional information that is available, such as changes in projected capital expenditures, regulatory climate, industry restructuring, regulatory rulings, and changes in the competitive environment. The performance of security analysts is measured against their ability to weigh the above factors, to predict earnings growth, and to communicate their views to investors. Current research indicates that securities analysts are influential, their forecasts are more accurate than simple extrapolation of past growth, and, most importantly, the consensus of their forecasts is impounded in the current structure of market prices. This is a key result, since a proper application of the DCF model requires the matching of stock prices and investors' growth expectations.

Q. 39 Are analysts' forecasts readily available?

A. 39 Yes. An important part of the analysts' job is getting their views across to institutional investors. The major investment advisory firms send out monthly reports with their earnings forecasts, and institutional investors have direct access to analysts. Individual investors can get the same forecasts through their investment advisors or online. Studies reported in the academic literature indicate that recommendations based on these forecasts are relied on heavily by investors. Indeed, because analysts' forecasts are perceived by investors as being useful, there are services which offer analysts' forecasts on all major stocks. I/B/E/S and Zack's are some of the providers of this data. I recommend use of the I/B/E/S growth rates because they have been: (1) shown to be highly correlated with stock prices; (2) widely studied in the finance literature; and (3) widely available to investors for many years.

Q. 40 Is it your contention that analysts make perfectly accurate predictions of future earnings growth?

A. 40 No. Forecasting earnings growth, for either the short-term or long-term, is very difficult. This statement is consistent with the facts that: (1) stocks, unlike high-quality bonds, are risky investments whose return is highly uncertain; and (2) analysts who forecast poorly lose their jobs. Though analysts' forecasts are not perfectly accurate, they are better than historical growth in predicting stock

prices. One would expect this result, given that analysts have all the past data plus current information. The important consideration is: what growth rates do investors use to value a stock? Current research suggests that the analysts' growth forecasts are used by investors and therefore are most related to stock prices.

Q. 41 Have you done research on the appropriate use of analysts' forecasts in the DCF model?

A. 41 Yes. As described in my direct testimony, I have done extensive research on the use of analysts' growth forecasts as estimates of investors' future growth expectations (see Vander Weide Direct at 14). My studies indicate that analysts' forecasts of future growth are superior to historical growth measures in predicting a firm's stock price.

Q. 42 What DCF result would Dr. Brown have obtained if he had correctly applied the DCF model to an appropriate comparable company group of natural gas utilities that have at least two I/B/E/S analysts' growth rate forecasts?

A. 42 Dr. Brown would have obtained a DCF result equal to 11.5 percent (see Rebuttal Schedule 1).

D. Current U. S. Economic Environment

Q. 43 Does Dr. Brown discuss the current U. S. economic environment in his direct testimony?

A. 43 Yes. Dr. Brown discusses the current U. S. economic environment in his testimony at pages 34 – 38.

Q. 44 How does Dr. Brown characterize the U. S. economic environment?

A. 44 Dr. Brown characterizes the U. S. economy as being in recession, with GNP declining substantially and unemployment rising dramatically. [Brown at 37.]

Q. 45 Do you agree with Dr. Brown's characterization of the current U. S. economic environment?

A. 45 Yes. The U. S. economy is in the midst of the largest housing, employment, and credit crisis of the past thirty years. During the last year, housing prices have collapsed, foreclosures have increased dramatically, banks have either failed or

announced multi-billion dollar write-offs, unemployment has increased, and investor confidence in the health of the economy is at record lows.

Q. 46 Has the current U. S. economic environment affected investors' perceptions of the risk of investing in U. S. stocks and bonds?

A. 46 Yes. The current U. S. economic environment has greatly increased investors' perceptions of the risks of investing in U. S. stocks and bonds. As a result, the required return on U. S. stocks and bonds has generally increased as well.

Q. 47 Is there evidence that the increased risks of investing in U. S. stocks and bonds has resulted in higher required rates of return?

A. 47 Yes. As shown below, the average yield to maturity on Baa-rated utility bonds has increased from 6.4 percent in October 2007 to 7.9 percent in January 2009. Similarly, the average yield to maturity on Baa-rated industrial bonds has increased from 6.6 percent in October 2007 to 8.4 percent in January 2009, and on Baa-rated corporate bonds from 6.5 percent to 8.1 percent.

Q. 48 Is Atmos Energy feeling the effects of higher capital costs in today's more risky economic environment?

A. 48 Yes. Atmos Energy anticipates issuing later this year Baa-rated utility bonds with a yield to maturity of 8.0 percent, a yield that exceeds its embedded cost of long-term debt by approximately 170 basis points.

Q. 49 Does Dr. Brown agree that investors require a higher rate of return on equity investments in today's more risky economic environment?

A. 49 No. Dr. Brown seems to believe that the investors' required rate of return on stock investments has declined in today's more risky economic environment.

Q. 50 Does Dr. Brown provide any evidence that allegedly supports his view that investors' required rates of return on stock investments have declined in today's more risky economic environment?

A. 50 Yes. Dr. Brown provides a quote from a Mr. Gross of Pimco Bonds Inc. Mr. Gross states, "Investors need to recognize these titanic shifts in markets and public policies and be content with single-digit returns in future years." [Brown at 36.]

Q. 51 Does Mr. Gross's statement support Dr. Brown's view that investors have reduced their required rates of return on stock investments in today's more risky economic environment?

A. 51 No. As a manager of a bond fund, Mr. Gross's statement refers to returns investors can expect to earn in his bond fund. Investors in stocks require significantly higher rates of return than bond investors.

Q. 52 Dr. Brown notes that investors have earned a return of approximately five percent on an investment in Atmos Energy's stock from January 2, 2004, to January 2, 2009. [Brown at 49.] Does the low return earned by investors in Atmos Energy from January 2, 2004 to January 2, 2009 indicate that investors' required rate of return on future investments is low?

A. 52 No. The investors' required rate of return is a forward-looking return, not an historical return. Further, Dr. Brown's historical return data are distorted because his holding period ends during a recession. In fact, both of the two alternative periods that Dr. Brown selected end in the same month, during the current recession.

III. Response to Dr. Brown's Rebuttal Comments

Q. 53 What methods did you use to estimate Atmos Energy's cost of equity in this proceeding?

A. 53 I estimated Atmos Energy's cost of equity using the discounted cash flow method, the ex ante risk premium method, the ex post risk premium method, the historical CAPM method, and the DCF-based CAPM method.

A. DCF Method

Q. 54 What are Dr. Brown's criticisms of your DCF method?

A. 54 Dr. Brown criticizes my DCF method on the grounds that it: (1) is a "recycling" of my DCF analysis filed in FERC Docket ER04-242-000 in November 2003 [Brown at 55]; and (2) relies on analysts' earnings growth forecasts that, in his opinion, are overly optimistic.

Q. 55 How does Dr. Brown attempt to support his opinion that your DCF analysis in this proceeding is simply a "recycling" of your DCF analysis in FERC Docket ER04-242-000 in November 2003?

A. 55 Dr. Brown provides a picture of my DCF schedule in this proceeding and my DCF schedule in the FERC docket and notes that my average DCF result in both schedules is the same, 11.1 percent.

Q. 56 Do Dr. Brown's pictures of your DCF schedules demonstrate that your DCF analysis in this proceeding is a "recycling" of your DCF analysis in the FERC docket?

A. 56 No. To the contrary, Dr. Brown's pictures indicate that my DCF analysis in this proceeding is completely independent of my DCF analysis in the FERC docket. As shown in Rebuttal Schedule 2, my current analysis is based on a different set of comparable companies, different stock prices, different dividends, and different growth rates, all from different time periods, as compared to my analysis in this proceeding. The fact that the two analyses produce the same average DCF result is entirely coincidental.

Q. 57 How do interest rates at the time you prepared your current testimony compare to interest rates at the time you prepared your analysis in the FERC proceeding?

A. 57 As shown below, interest rates on A-rated and Baa-rated utility bonds were approximately the same at the time I prepared my analysis in this proceeding, August 2008, as at the time I prepared my analysis in the FERC proceeding, July 2003.

Table 4
Comparison of Moody's Utility Bond Yields
July 2003 and August 2008

RATING	JULY-03	AUGUST-08
A	6.57%	6.38%
Baa	6.67%	6.98%

Q. 58 Dr. Brown claims that your current 11.7 percent estimate of Atmos Energy's cost of equity is "nearly identical" to your 11.8 percent estimate of Atmos Energy's cost of equity in the FERC docket. [Brown at 59.] Did you provide an estimate of Atmos Energy's cost of equity in the FERC docket?

A. 58 No. In FERC Docket ER04-242-000, I provided an estimate of the cost of equity for Pacific Gas and Electric Company ("PG&E"). I did not conduct an analysis of Atmos Energy's cost of equity in the FERC docket.[5]

Q. 59 Dr. Brown also claims that your 11.8 percent estimate of Atmos Energy's cost of equity in the FERC docket was "wrong by a large margin" because "AEC's investors have not earned 11.8 percent since 2004." [Brown at 59.] Is he correct?

A. 59 No. First, as noted above, I did not estimate Atmos Energy's cost of equity in the FERC docket. My testimony in that case provided an opinion regarding PG&E's cost of equity. Second, Dr. Brown fails to recognize that earned returns over a short time period are not indicative of investors' required future rates of return. Investors' required rates of return at the time of my analysis in the FERC docket were based on investors' expectations at that time. Even though investors' earned returns were low over the last five years, investors in July 2003 did not expect that the U. S. economy would be in severe recession in 2008 and 2009.

Q. 60 Dr. Brown argues that your DCF result should be dismissed because you rely on analysts' growth forecasts that have been shown to be overly optimistic. [Brown at 62 – 68.] Is Dr. Brown's assessment of analysts' optimism consistent with the findings of the financial research literature?

A. 60 No. Financial research demonstrates that Dr. Brown's assertion that analysts are optimistic is incorrect. Although some earlier research had found evidence of analyst optimism in some time periods, recent research has demonstrated that earlier researchers failed to recognize substantial statistical difficulties in their studies that caused these researchers to unwittingly accept the hypothesis of optimism when no optimism was present. For example, recent studies recognize

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5 Dr. Brown seems to be erroneously understanding that the table he includes at page 56 of his testimony, which displays a DCF result of 11.8 percent for Atmos Energy, is an estimate of Atmos Energy's cost of equity. However, Atmos Energy was only one of 43 companies in my DCF analyses of natural gas and electric companies presented in the PG&E FERC testimony. In addition, as in this proceeding, I also applied other cost of equity methodologies to obtain my recommended cost of equity for PG&E.

that the results of earlier studies are heavily influenced by the presence of large unexpected accounting write-offs and special accounting charges at a small number of sample companies. Unexpected accounting write-offs and special charges have a potentially dramatic impact on conclusions concerning analysts' bias because analysts' forecasts intentionally exclude the impact of accounting write-offs and special charges, whereas actual earnings include these items. Thus, a comparison of analysts' forecasts premised on normalized earnings (that is, earnings that exclude the impact of accounting write-offs and special charges) to reported earnings that include the negative effect of accounting write-offs and special charges will bias the results in favor of concluding that analysts are optimistic. More recent studies demonstrate that once the distorting effect of unexpected accounting write-offs and special charges are removed from the analysis, there is no evidence that analysts' EPS growth forecasts are optimistic.[6]

Q. 61 Have you reviewed a broad range of studies that address the issue of analysts' optimism?

A. 61 Yes. I have reviewed nine studies that address the issue of whether analysts' growth forecasts are overly optimistic. At least seven of the nine articles reviewed find no evidence that analysts' growth forecasts are overly optimistic. Two find evidence of optimism, but also conclude that optimism is declining significantly over time. Of these two studies, one finds that analysts' forecasts for the S&P 500 are pessimistic for the last four years of the study. (See Table 4 below.)

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[6] See, for example, Abarbanell, J., and Reuven Lehavy (2003). "Biased forecasts or biased earnings? The role of reported earnings in explaining apparent bias and over/underreaction in analysts' earnings forecasts." Journal of Accounting & Economics 36: 105-146.

TABLE 5
Articles That Study Whether Analysts' Forecasts Are Biased Toward Optimism[7]

AUTHOR (DATE)	CONCLUSION
Crichfield, Dyckman, and Lakonishok (1978)	Unbiased
Elton, Gruber, and Gultekin (1984)	Unbiased
Givoly and Lakonishok (1984)	Unbiased
Brown (1997)	Declining optimism
Keane and Runkle (1998)	Unbiased
Abarbanell and Lehavy (2003)	Unbiased
Ciccone (2005)	Pessimistic
Clarke, Ferris, Jayaraman, and Lee (2006)	Unbiased
Yang and Mensah (2006)	Unbiased

Q. 62 According to Dr. Brown, the FERC DCF procedure in natural gas and oil pipeline cases reflects the FERC's doubts about the accuracy of the I/B/E/S analysts' growth estimates. [Brown at 64.] Is he correct?

A. 62 No. The FERC explicitly accepts the accuracy of the I/B/E/S growth estimates, but chooses to employ a two-stage model that uses estimates of long-term growth in the economy as the second-stage growth. The FERC gives two-thirds weight to the I/B/E/S growth forecasts and one-third weight to the GDP growth forecasts.

Q. 63 Dr. Brown attempts to apply the FERC two-stage DCF model to six natural gas distribution companies. Has Dr. Brown applied the FERC model correctly?

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7 Abarbanell, J., and Reuven Lehavy (2003). "Biased forecasts or biased earnings? The role of reported earnings in explaining apparent bias and over/underreaction in analysts' earnings forecasts." Journal of Accounting & Economics **36**: 105-146.; Brown, L. D. (1997). "Analyst forecasting errors: additional evidence." Financial Analysts Journal November/December: 81-88.; Ciccone, S. J. (2005). "Trends in analyst earnings forecast properties." International Review of Financial Analysis **14**: 1-22; Clarke, J., Stephen P. Ferris, Narayanan Jayaraman, and Jinsoo Lee (2006). "Are analyst recommendations biased? Evidence from corporate bankruptcies." Journal of Financial and Quantitative Analysis **41**(1): 169-196.; Crichfield, T., Thomas Dyckman and Josef Lakonishok (1978). "An evaluation of security analysts' forecasts." The Accounting Review **53**(3): 651-668.; Elton, E. J., Martin J. Gruber and Mustafa N. Gultekin (1984). "Professional expectations: accuracy and diagnosis of errors." Journal of Financial and Quantitative Analysis **19**(4): 351-363.; Givoly, D., and Josef Lakonishok (1984). "Properties of analysts' forecasts of earnings: a review and analysis of the research." Journal of Accounting Literature **3**: 119-148.; Keane, M. P., and David E. Runkle (1998). "Are financial analysts' forecasts of corporate profits rational." The Journal of Political Economy **106**(4): 768-805..

A. 63 No. First, Dr. Brown fails to understand that the FERC method he cites is specifically designed to apply to FERC-regulated natural gas and oil pipeline companies, not to natural gas distribution companies. Second, Dr. Brown fails to understand that the FERC method that he applies is specifically designed to apply to Master Limited Partnerships ("MLPs") and is not the same as the FERC method for estimating the cost of equity for natural gas and oil pipeline companies that are not organized as Master Limited Partnerships. Only in the case of the MLPs does the FERC reduce the estimate of long-term GDP growth forecast by 50 percent. Third, Dr. Brown fails to understand that the GDP growth estimate he is using has already been reduced by 50 percent. Thus, in his application of the FERC method, Dr. Brown has incorrectly used an estimate of GDP growth that has been reduced by 50 percent. Fourth, Dr. Brown fails to mention that the witness he cites as the source for his long-term growth estimate, Dr. Williamson, recommends a cost of equity equal to 13.01 percent at September 2008. [8]

Q. 64 To allegedly support his arguments against your use of analysts' earnings growth forecasts in your DCF analysis, Dr. Brown asserts that Terrence L. Barnich rebutted your use of analysts earnings growth forecasts in the *JDS Uniphase Securities Litigation*. [Brown at 67.] Is Dr. Brown's assertion correct?

A. 64 No. Since I did not testify on the use of analysts' earnings growth forecasts in the *JDS Uniphase Securities Litigation* or use analysts' earnings growth forecasts in a DCF analysis, Mr. Barnich 's rebuttal testimony had nothing to do with my use of analysts' earnings forecasts or the use of analysts' earnings forecasts in the DCF model.

Q. 65 What was your assignment in the *JDS Uniphase Securities Litigation*?

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[8] Dr. Brown uses the testimony of J. Peter Williamson as his source for GDP growth forecasts. Dr. Williamson states, "The average GDP growth forecast has been multiplied by 50 percent as required by the Commission. *Composition of Proxy Groups for Determining Gas and Oil Pipeline Return on Equity, 123 FERC ¶61,048, at P 106 (2008).*" As is clear in his testimony, Dr. Williamson uses a proxy group of Master Limited Partnerships. Prepared Direct Testimony of J. Peter Williamson on behalf of SFPP, L.P., filed October 16, 2008, Exhibit SFP-1, Docket No. IS08-390-002, p. 4, p. 21.

A. 65 In the *JDS Uniphase Securities Litigation* matter, as stated in my Opening Expert Report under the heading "Assignment," I addressed three issues, namely:

- What were the characteristics of JDSU's industry and economic environment in the late 1990s and early 2000s?
- Was the rapid decline in industry revenues beginning in the spring of 2001 anticipated by industry observers?
- Could the rapid decline in industry revenues beginning in the spring of 2001 have been reasonably anticipated in light of industry and economic conditions?[9]

Q. 66 Did the JDS Uniphase matter go to trial?

A. 66 Yes.

Q. 67 How did the jury decide the matter?

A. 67 The jurors for the U.S. District Court for the Northern District of California ruled in favor of my client, JDS Uniphase, on all claims.[10]

B. Ex Ante Risk Premium Method

Q. 68 What are Dr. Brown's criticisms of your ex ante risk premium method?

A. 68 Dr. Brown simply asserts that my ex ante risk premium method "is a restatement of the DCF method, and it is no surprise that it yields an 11.1 percent return." [Brown at 52.]

Q. 69 Do you agree with Dr. Brown's assertion that your ex ante risk premium method is a restatement of the DCF method?

A. 69 No. My ex ante risk premium method is distinguished from the DCF method in that the cost of equity in my ex ante risk premium method is based on a regression analysis of the relationship between the required risk premium on

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9 *In re JDS Uniphase Corp. Securities Litigation,* Opening Expert Report of James H. Vander Weide, Ph.D., filed February 5, 2007, p. 2.

10 *In re JDS Uniphase Corp. Securities Litigation*, No. 02-CV-1486-CW, verdict returned (N.D. Cal. Nov. 27, 2007). "Jury Disconnects Shareholder Fraud Suit Against JDS Uniphase," Joe Hylkema, *Securities Litigation & Regulation Reporter*, Volume 13, Issue 16, December 10, 2007. *Also see*, "JDS Uniphase Wins Rare Securities Trial," Stephen Taub, November 28, 2007,CFO.com; "JDS Wins Investor Lawsuit, Bucking a Trend -- Firm Goes to Trial Rather Than Settling," Ashby Jones, *The Wall Street Journal*, B4, June 2, 2008.

utility stocks and interest rates, whereas the DCF method does not consider the relationship between the required risk premium and interest rates.

C. Ex Post Risk Premium Method

Q. 70 What are Dr. Brown's criticisms of your ex post risk premium method?

A. 70 Dr. Brown asserts that my ex post risk premium method is not based on comparable companies. [Brown at 52.]

Q. 71 Do you agree that your ex post risk premium method is not based on comparable companies?

A. 71 No. Contrary to Dr. Brown's assertion, my ex post risk premium study is based on the historical returns of both the S&P Utilities and the S&P 500 over the period 1937 to the present. As I explain in my direct testimony:

> I have performed my ex post risk premium analysis on both the S&P 500 and the S&P utilities as upper and lower bounds for the required risk premium on an equity investment in Atmos Energy because I believe natural gas companies today face risks that are somewhere in between the average risk of the S&P Utilities and the S&P 500 over the years 1937 to 2008. Specifically, the risk premium on the S&P Utilities, 4.6 percent, represents a lower bound for the required risk premium on an equity investment in Atmos Energy because Atmos Energy is currently more risky than an investment in the average utility in the S&P Utilities index over the entire period 1937 to the present. On the other hand, the risk premium on the S&P 500, 5.0 percent, represents an upper bound because an investment in Atmos Energy is less risky than an investment in the S&P 500 over the period 1937 to the present. I use the average of the two risk premiums as my estimate of the required risk premium for Atmos Energy in my ex post risk premium method.

D. DCF-based CAPM Method

Q. 72 What are Dr. Brown's criticisms of your DCF-based CAPM method for estimating Atmos Energy's cost of equity?

A. 72 Dr. Brown asserts that my DCF-based CAPM method "is an inappropriate mix between Dr. Vander Weide's Historical CAPM analysis of the comparable companies and his estimate of a DCF return to the S&P 500 companies." [Brown at 54.]

Q. 73 Does Dr. Brown correctly characterize your DCF-based CAPM method?

A. 73 No. The CAPM requires an estimate of the expected risk premium on the market portfolio, which is generally represented by the S&P 500. My historical CAPM measures the expected risk premium on the market portfolio using Ibbotson Associates data on the historical risk premium on the S&P 500 compared to long-term government bonds over the period 1926 to the present. In contrast, my DCF-based CAPM measures the required risk premium on the market portfolio by calculating the difference between the current DCF-expected return on the S&P 500 and the yield to maturity on long-term government bonds. Thus, contrary to Dr. Brown's assertion, my DCF-based CAPM method is completely independent of my historical CAPM method.

E. Historical CAPM Method

Q. 74 Does Dr. Brown agree with your historical CAPM method?

A. 74 No. The historical CAPM method requires estimates of the risk-free rate, the company-specific beta, and the required risk premium on the market portfolio. Although Dr. Brown accepts my estimates of the risk-free rate and the required risk premium on the market portfolio, he asserts that I should have used the average beta from five separate sources of beta rather than rely solely on Value Line's beta estimates for the comparable companies to estimate the beta component of the CAPM.

Q. 75 Why did you rely on Value Line beta estimates for your comparable companies rather than on the average of the five beta estimates recommended by Dr. Brown?

A. 75 I relied on the Value Line beta estimates because Value Line is the only one of the sources noted by Dr. Brown that properly adjusts for the tendency of measured betas to move over time toward the overall mean beta of 1.0.

IV. Conclusion

Q. 76 What conclusion do you reach from your analysis of Dr. Brown's cost of equity methodology and result?

A. 76 I conclude that Dr. Brown's DCF methodology is deeply flawed. His analysis is based on an inappropriate group of proxy companies, an incorrect application of

the DCF model, and an incorrect method of estimating the expected growth component of the DCF model. Further, his 7.5 percent DCF result is less than the interest rate Atmos Energy anticipates having to pay on a bond issuance later this year, and lower than the average Baa-rated utility bond yield in January 2009, 7.9 percent. In summary, there is nothing in Dr. Brown's testimony that would cause me to change my recommended cost of equity in this proceeding. I continue to support my 11.7 percent recommended cost of equity for Atmos Energy in this proceeding as being both reasonable and conservative.

Q. 77 Does this conclude your rebuttal testimony?

A. 77 Yes, it does.

ATMOS ENERGY
REBUTTAL SCHEDULE 1
SUMMARY OF DISCOUNTED CASH FLOW ANALYSIS
FOR NATURAL GAS COMPANIES

LINE NO.	COMPANY	D_0	P_0	GROWTH	COST OF EQUITY
1	AGL Resources	0.420	29.503	4.25%	10.7%
2	Energen Corp.	0.120	28.947	3.50%	5.3%
3	Equitable Resources	0.220	31.375	11.67%	15.1%
4	Nicor Inc.	0.465	36.988	2.85%	8.5%
5	Northwest Nat. Gas	0.395	45.758	4.75%	8.5%
6	ONEOK Inc.	0.400	28.175	9.07%	15.9%
7	Piedmont Natural Gas	0.260	30.323	7.13%	11.2%
8	South Jersey Inds.	0.284	36.948	7.50%	11.0%
9	Questar Corp.	0.125	30.652	9.00%	10.9%
10	Southwest Gas	0.225	24.470	6.00%	10.2%
11	Market-Weighted Average				11.5%
12	Market-Weighted Average without highest & lowest result				11.6%

Notes:

d_0 = Most recent quarterly dividend.
d_1,d_2,d_3,d_4 = Next four quarterly dividends, calculated by multiplying the last four quarterly dividends per Value Line, by the factor (1 + g).
P_0 = Average of the monthly high and low stock prices during the three months ending January 2009 per Thomson Reuters.
FC = Flotation costs expressed as a percent of gross proceeds (5%).
g = I/B/E/S forecast of future earnings growth January 2009.
k = Cost of equity using the quarterly version of the DCF model.

$$k = \frac{d_1(1+k)^{.75} + d_2(1+k)^{.50} + d_3(1+k)^{.25} + d_4}{P_0(1-FC)} + g$$

ATMOS ENERGY
REBUTTAL SCHEDULE 2
COMPARISON OF VANDER WEIDE
DCF STUDIES MAY 2003 AND AUGUST 2008

Company	July 2003 Dividend	August 2008 Dividend	Compare	July 2003 Price	August 2008 Price	Compare
AGL Resources	0.280	0.420	Different	26.127	34.140	Different
Atmos Energy	0.300	0.325	Different	24.273	26.760	Different
Energen	0.180	0.120	Different	33.057	67.378	Different
NICOR	0.465	0.465	Same	35.502	42.023	Different
Northwest Natural Gas	0.315	0.375	Different	27.633	46.147	Different
ONEOK	0.170	0.380	Different	20.032	46.787	Different
Piedmont Natural Gas	0.415	0.260	Different	38.937	26.771	Different
Southwest Gas	0.205	0.225	Different	21.152	29.380	Different

Company	July 2003 Growth	August 2003 Growth	Compare	July 2003 Cost Of Equity	August 2008 Cost Of Equity	Compare
AGL Resources	5.53%	5.25%	Different	10.3%	10.9%	Different
Atmos Energy	6.09%	5.00%	Different	11.8%	10.6%	Different
Energen	7.00%	10.75%	Different	9.5%	11.6%	Different
NICOR	4.38%	4.25%	Different	10.3%	9.3%	Different
Northwest Natural Gas	4.67%	4.83%	Different	9.9%	8.5%	Different
ONEOK	8.80%	9.07%	Different	12.8%	12.9%	Different
Piedmont Natural Gas	5.00%	5.75%	Different	9.8%	10.1%	Different
Southwest Gas	5.25%	6.00%	Different	9.7%	9.5%	Different
Market-Wtd. Average				11.1%	11.1%	Same

COMPANIES INCLUDED IN ONE, BUT NOT BOTH DCF STUDIES

Company	Proceeding
Keyspan	FERC
Peoples Energy	FERC
UGI	FERC
WGL Holdings	FERC
New Jersey Resources	Tennessee
Questar Corp.	Tennessee
South Jersey Inds.	Tennessee

BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE

IN RE:	)	
	)	
PETITION OF ATMOS ENERGY	)	
CORPORATION FOR APPROVAL OF	)	
ADJUSTMENT OF ITS RATES AND	)	
REVISED TARIFF	)	**DOCKET NO. 08-00197**

VERIFICATION

STATE OF TEXAS)
)
COUNTY OF DALLAS)

I, Laurie M. Sherwood, being first duly sworn, state that I am the Vice President and Treasurer for Atmos Energy Corporation, that I am authorized to testify on behalf of Atmos Energy Corporation in the above referenced docket, that the Rebuttal Testimony of Laurie M. Sherwood pre-filed in this docket on the date of filing herein is true and correct to the best of my knowledge, information and belief.

Laurie M. Sherwood

Sworn and subscribed before me this 19th day of February, 2009.

Jackqueline Madrid
Notary Public
State of Texas
COMM. EXP. 12-27-2010

Notary Public

My Commission Expires: 12-27-2010