
UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 11-K

**FOR ANNUAL REPORTS OF EMPLOYEE STOCK PURCHASE, SAVINGS
AND SIMILAR PLANS PURSUANT TO SECTION 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2010

OR

**TRANSITION REPORT PURSUANT TO SECTION 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number 33-57687

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**

(Full title of the plan and the address of the plan, if different from that of the issuer named below)

**ATMOS ENERGY CORPORATION
Three Lincoln Centre, Suite 1800
5430 LBJ Freeway
Dallas, Texas 75240**

*(Name of issuer of the securities held
pursuant to the plan and the
address of its principal executive office)*

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**

**FINANCIAL STATEMENTS
AND SUPPLEMENTAL SCHEDULE**

**AS OF DECEMBER 31, 2010 AND 2009
AND FOR THE YEAR ENDED DECEMBER 31, 2010**

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Participants and the Qualified Retirement Plans and Trusts Committee of the Atmos Energy Corporation Retirement Savings Plan and Trust

We have audited the accompanying statement of net assets available for benefits of the Atmos Energy Corporation Retirement Savings Plan and Trust as of December 31, 2010 and 2009, and the related statement of changes in net assets available for benefits for the year ended December 31, 2010. These financial statements are the responsibility of the Plan’s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan’s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Atmos Energy Corporation Retirement Savings Plan and Trust as of December 31, 2010 and 2009, and the changes in its net assets available for benefits for the year ended December 31, 2010, in conformity with accounting principles generally accepted in the United States of America.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule to Form 5500, Schedule H, Line 4i — Schedule of Assets (Held at End of Year) is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor’s Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental schedule is the responsibility of the Plan’s management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

/s/ Whitley Penn LLP

Dallas, Texas
June 21, 2011

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

	December 31	
	2010	2009
Assets		
Investments, at fair value:		
Common stock of Atmos Energy Corporation	\$124,555,479	\$109,842,000
Registered Investment Companies:		
T. Rowe Price Balanced Fund	14,008,141	12,525,582
T. Rowe Price Spectrum Income Fund	8,669,161	7,817,451
T. Rowe Price Spectrum Growth Fund	25,405,127	21,737,754
T. Rowe Price Short-Term Bond Fund	3,468,474	3,201,608
T. Rowe Price U.S. Bond Index Fund	20,974,721	18,474,876
T. Rowe Price New Horizons Fund	16,566,001	12,607,602
T. Rowe Price Mid-Cap Value Fund	16,973,417	14,659,024
T. Rowe Price New America Growth Fund	11,294,484	7,372,503
T. Rowe Price Equity Income Fund	23,612,750	18,567,668
T. Rowe Price Equity Index 500 Fund	8,022,877	7,077,537
T. Rowe Price Growth Stock Fund	10,649,415	13,353,471
Harbor International Fund	26,783,284	22,671,365
T. Rowe Price Retirement 2005 Fund	80,748	54,832
T. Rowe Price Retirement 2010 Fund	708,061	541,626
T. Rowe Price Retirement 2015 Fund	2,082,587	1,802,292
T. Rowe Price Retirement 2020 Fund	2,883,462	1,965,757
T. Rowe Price Retirement 2025 Fund	1,883,167	1,324,131
T. Rowe Price Retirement 2030 Fund	2,007,834	1,285,352
T. Rowe Price Retirement 2035 Fund	1,567,318	1,087,899
T. Rowe Price Retirement 2040 Fund	1,281,573	734,735
T. Rowe Price Retirement 2045 Fund	1,444,631	948,074
T. Rowe Price Retirement 2050 Fund	759,724	437,085
T. Rowe Price Retirement 2055 Fund	219,310	93,269
T. Rowe Price Retirement Income Fund	50,974	38,489
Common/Collective Trust:		
T. Rowe Price Stable Value Common Trust Fund	16,287,783	12,879,067
Common stock of Entergy Corporation	111,536	130,148
Common stock of Frontier Communications Corporation, Class B	286,756	230,757
Total investments	342,638,795	293,461,954
Receivables:		
Participant contributions	643,005	603,098
Company contributions	382,617	361,425
Due from broker	35,495	45,612
Notes receivable from participants	15,161,034	13,525,874
Total receivables	16,222,151	14,536,009
Net assets available for benefits, at fair value	358,860,946	307,997,963
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	(588,709)	(386,755)
Net assets available for benefits	\$358,272,237	\$307,611,208

See accompanying notes

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**

**STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
Year ended December 31, 2010**

Additions to Net Assets

Investment income:

Net appreciation in fair value of investments	\$ 29,680,543
Dividends on common stock	5,217,680
Dividends on registered investment companies	3,817,732
Dividends on common/collective trust	<u>523,942</u>

Total investment income 39,239,897

Other Income

Interest received on participant loans	903,380
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Contributions:

Participants	17,921,320
Company	9,753,582
Rollovers	<u>565,242</u>

Total contributions 28,240,144

Transfer from Atmos Energy Corporation Savings Plan for MVG Union Employees 21,644

Total additions to net assets 68,405,065

Deductions from Net Assets

Distributions to participants 17,528,557

Administrative expenses 215,479

Total deductions from net assets 17,744,036

Net increase in net assets available for benefits 50,661,029

Net assets available for benefits at beginning of year 307,611,208

Net assets available for benefits at end of year \$358,272,237

See accompanying notes

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**

NOTES TO FINANCIAL STATEMENTS

December 31, 2010

1. Description of the Plan

The following brief description of the Atmos Energy Corporation Retirement Savings Plan and Trust (the Plan) is provided for general information only. Participants should refer to the Summary Plan Description for a more detailed description of the Plan's provisions.

General

The Plan is a trustee defined contribution retirement benefit plan offered to eligible employees of Atmos Energy Corporation (the Company, Atmos Energy or Plan Sponsor). The Plan is to continue for an indefinite term and may be amended or terminated at any time by the Board of Directors of Atmos Energy (the Board). The Plan is administered by the Qualified Retirement Plans and Trusts Committee (the Committee) which is appointed by the Board. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA).

Eligibility

Substantially all employees of the Company (except employees covered by other agreements, leased employees and any employees covered by a collective bargaining agreement in which Plan participation has not been negotiated through good faith bargaining) (Participants) are automatically enrolled in the Plan as of the first payroll period coincident with or immediately following the date of hire.

Contributions

Contributions to the Plan include contributions withheld by the Company on behalf of each Participant in an amount specified by the Participant pursuant to a salary reduction agreement, as well as matching and any discretionary Company contributions.

Participants are eligible to receive matching Company contributions after completing at least one year of service, effective on the first full pay period after which one year of service has been completed.

Participants are automatically enrolled in the Plan and are assigned a salary deferral rate of four percent, unless they affirmatively elect not to contribute to the Plan. Participants may elect a different deferral rate ranging from a minimum of one percent up to a maximum of 65 percent of eligible compensation, as defined by the Plan, not to exceed the maximum allowed by the Internal Revenue Code (the Code) (\$16,500 in 2010 or \$22,000 for those participants age 50 or older).

The Company contributes a matching Company contribution, in the form of Atmos Energy common stock, in an amount equal to 100 percent of each Participant's salary reduction contribution, up to a maximum of four percent of such Participant's eligible compensation, as defined by the Plan, for the Plan year. The Company's matching contribution meets the current Internal Revenue Service (IRS) "Safe Harbor" definition. The Company may revoke or amend any Participant's salary reduction agreement if necessary to ensure that (1) each Participant's additions for any year will not exceed applicable Code limitations and (2) Company matching contributions will be fully deductible for federal income tax purposes.

The Plan also provides that a discretionary contribution may be made at the option of the Board and in an amount determined annually by the Board. No discretionary contribution was made to the Plan in 2010.

All contributions to a Participant account are immediately and fully vested.

In August 2010, the Board approved a proposal to close Atmos Energy's Pension Account Plan (PAP), a defined benefit plan that covers substantially all employees, to new participants effective October 1, 2010. All new

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**

NOTES TO FINANCIAL STATEMENTS — (Continued)

employees hired on or after October 1, 2010 will participate in the Plan, which has been enhanced, effective January 1, 2011 (the enhanced Plan). Employees who participated in the PAP as of October 1, 2010 were allowed to make a one-time election to migrate from that plan into the enhanced Plan, effective January 1, 2011. Under the enhanced Plan, participants will receive a fixed annual contribution of four percent of eligible compensation to their Plan account in which they will be fully vested after three years of service. Participants will continue to be eligible for Company matching contributions of up to four percent of their eligible compensation in which they will be fully vested immediately. A total of 206 participants elected to transfer from the PAP to the enhanced Plan.

Investment Options

The Plan allows Participant salary reduction contributions to be invested among a variety of registered investment companies, one common/collective trust and Atmos Energy common stock.

The Atmos Stock Fund, consisting of Atmos Energy common stock, is participant directed. All Company matching and discretionary contributions are directed into this fund. All Participant and Company contributions made to this fund, both Participant directed and Company matching and discretionary, are allowed to be diversified at any time after the contribution is made into one or more of the other investment options offered by the Plan.

The Plan's investments in the common stock of Entergy Corporation and Frontier Communications Corporation (formerly Citizens Communications) are held in separate accounts within the Plan. These accounts were established to accommodate employees who elected to hold these investments when they transferred their accounts into the Plan from a predecessor plan following an acquisition. These accounts were established as frozen accounts where the funds could be liquidated but no new stock added.

Distributions to Participants

Dividends received on Atmos Energy common stock are automatically reinvested in Atmos Energy common stock. However, a Participant may elect to have his or her dividends paid in cash. This election may be made at any time during the period beginning on the first business day on or after the dividend record date and ending at a time specified by the Committee on the last business day preceding the dividend payout date. Cash dividends received on Atmos Energy common stock, in accordance with the Plan, must be distributed to Participants no later than 90 days after the Plan's year end. Currently, the dividends are distributed quarterly. Once a Participant elects to receive his or her dividends in cash, the election will remain in effect until the election is changed.

A Participant may elect to receive an annual distribution of Company matching or discretionary contributions made to his or her account prior to January 1, 1999 and which were allocated to his or her account at least two years prior to such election. These annual elections are made as of January 1. The annual distribution from the Plan is normally made in February of the following year. Company matching or discretionary contributions made after January 1, 1999 meet the current IRS "Safe Harbor" definition and are not eligible for in-service withdrawal.

In the event of retirement, death, termination due to disability or termination of employment for another reason, a Participant, or beneficiary in the event of death, is entitled to withdraw the entire amount from his or her account. Effective January 1, 2009, Participants who do not have Plan loans outstanding are entitled to take one or more partial distributions from his or her account. Withdrawals from a Participant's salary reduction account, as well as the Company matching and discretionary account, are also allowed upon proof of financial hardship meeting IRS "Safe Harbor" definitions or, if elected, subsequent to the Participant attaining age 59 ¹/₂. Withdrawals from the Atmos Stock Fund may be in the form of Atmos Energy common stock or cash, as determined by the Committee. However, a Participant has the right to have withdrawals made in the form of Atmos Energy common stock upon written notice by the Participant.

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**
NOTES TO FINANCIAL STATEMENTS — (Continued)

Loans to Participants

A Participant may borrow up to the lesser of \$50,000 or 50 percent of his or her account balance, with a minimum loan amount of \$1,000. Loans are repaid through payroll deductions over periods of up to 5 years for general purpose loans or 15 years for primary residence loans. The interest rate is the U.S. prime rate plus 2 percent and is fixed over the life of the loan. A Participant may have a maximum of two loans outstanding at any one time.

If a Participant has an outstanding loan in force and terminates his or her employment, the Participant may elect to continue to pay the loan according to the payment schedule that was set up at the time the loan was initiated. If this option is elected, the Participant must also leave his or her account balance in the Plan. A second option is that the Participant may elect to have the outstanding loan balance treated as a distribution from the Plan. A third option is that the Participant may repay the loan in full prior to his or her termination of employment.

Plan Termination

While the Company has not expressed any intent to terminate the Plan, it is free to do so at any time. In the event of the dissolution, merger, consolidation or reorganization of the Company, the Plan will terminate and the trust will be liquidated, unless the Plan is continued by a successor. Upon such liquidation, all accounts will be distributed to the Participants.

2. Summary of Significant Accounting Policies

Basis of Presentation

The financial statements of the Plan are prepared on the accrual basis of accounting. Distributions to participants are recorded when paid.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States (U.S. GAAP) requires management to make estimates that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

Shares of registered investment companies are valued at fair value based on published market prices which represent the net asset value of shares held by the Plan at year end. Investments in common stock are valued at fair value based on quoted market prices. The fair value of investments in the common/collective trust is determined periodically by T. Rowe Price Trust Company (T. Rowe Price) based upon the current fair value of the underlying assets of the fund based on quoted market prices.

The fair value methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain assets could result in a different fair value measurement at the measurement date.

Purchases and sales of securities are recorded on a trade date basis. Investment income is recorded on the accrual basis and dividend income is recorded on the ex-dividend date. Realized gains and losses from security transactions are reported on the average historical cost method. Capital gains and losses are included in interest and dividend income.

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**
NOTES TO FINANCIAL STATEMENTS — (Continued)

Notes Receivable from Participants

Notes receivable from participant loans are valued at remaining outstanding balances which approximates fair value.

Subsequent Events

We have evaluated subsequent events from the December 31, 2010 statement of net assets available for benefits date through the date these financial statements were filed with the Securities and Exchange Commission (SEC). Other than those described in Note 1, no events occurred subsequent to the statement of net assets available for benefits date that would require recognition or disclosure in the financial statements.

New Accounting Pronouncements

In May 2011, the Financial Accounting Standards Board (FASB) issued guidance that will provide a consistent definition of fair value and ensure that the fair value measurement and disclosure requirements are similar between U.S. GAAP and International Financial Reporting Standards. The update changes certain fair value measurement principles and enhances the disclosure requirements particularly for Level 3 fair value measurements. This guidance is effective for the Plan prospectively for periods beginning after December 15, 2011. The Plan is currently evaluating the impact that the pending adoption of this guidance will have on its financial statements.

In January 2010, the FASB issued guidance that requires new disclosures surrounding fair value measurements to enhance the existing disclosure requirements including: 1) information about transfers in and out of Level 1 and Level 2 fair value measurements as well as a detailed reconciliation of activity in Level 3 fair value measurements; 2) a more detailed level of disaggregation for each class of assets and liabilities; and 3) a requirement to disclose information about the valuation techniques and inputs used to measure fair value for both recurring and nonrecurring fair value measurements that fall in either Level 2 or Level 3. The new disclosures and clarifications of existing disclosures became effective for the Plan beginning December 31, 2010, except for the disclosures related to the detailed reconciliation of Level 3 fair value measurements, which are effective for fiscal years beginning after December 15, 2010.

In September 2010, the FASB issued guidance that clarifies how loans to participants are classified and measured by defined contribution benefit plans. The new guidance requires participant loans to be classified as notes receivable from participants, which are segregated from plan investments and measured at their unpaid principal balance plus any accrued but unpaid interest. In addition, as participant loans are no longer classified as investments, they are no longer presented in the fair value measurements disclosure included in Note 4. The new presentation requirement became effective beginning December 31, 2010 and was retrospectively applied to all prior periods presented.

3. Administration of the Plan and Plan Assets

The Plan is administered by the Committee, consisting of at least three persons who are appointed by the Board. The members of the Committee serve at the appointment of the Board without compensation from the Plan. Certain administrative functions are performed by employees of the Company. No employee of the Company receives compensation from the Plan.

In accordance with the Plan, the Company has appointed the Committee as Trustee of the Plan. The Trustee may be removed at the discretion of the Board. The Trustee shall vote any common stock held in the trust in accordance with directions received from the Participants or at its discretion if there are no such directions. The Plan's assets are held by T. Rowe Price, the custodian and recordkeeper of the Plan.

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**
NOTES TO FINANCIAL STATEMENTS — (Continued)

All administrative expenses of the Plan are paid by the Company except for processing fees related to loans to participants, which are paid by the Participant.

4. Fair Value Measurements

Authoritative accounting literature establishes a fair value hierarchy that prioritizes the inputs used to measure fair value based on observable and unobservable data. The hierarchy categorizes the inputs into three levels, with the highest priority given to unadjusted quoted prices in active markets for identical assets and liabilities (Level 1) and the lowest priority given to unobservable inputs (Level 3). The asset's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The levels of the hierarchy are described below:

Level 1 — Unadjusted quoted prices in active markets for identical assets or liabilities. An active market for the asset is defined as a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis. The Plan's Level 1 measurements consist of registered investment companies (mutual funds) and corporate stock.

Level 2 — Inputs other than quoted prices included in Level 1 that are either directly or indirectly observable for the asset as of the reporting date. These inputs are derived principally from, or corroborated by, observable market data. The Plan's Level 2 measurements consist of a common/collective trust. The fair value of investments in the common/collective trust is determined periodically by T. Rowe Price based upon the current fair value of the underlying assets of the fund based on quoted market prices.

Level 3 — Unobservable inputs that are supported by little, if any, market activity and are significant to the fair value of the assets as of the measurement date. Currently, the Plan has no assets recorded at fair value that would qualify for Level 3 reporting.

The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31, 2010 and 2009:

	Assets at Fair Value as of December 31, 2010			
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Registered investment companies:				
Balanced funds	\$ 14,008,141	\$ —	\$—	\$ 14,008,141
Income funds	32,413,633	—	—	32,413,633
Bond funds	24,443,195	—	—	24,443,195
Growth funds	78,752,694	—	—	78,752,694
Index funds	8,022,877	—	—	8,022,877
Mid-Cap funds	16,973,417	—	—	16,973,417
International funds	26,783,284	—	—	26,783,284
Corporate stock	124,953,771	—	—	124,953,771
Common/collective trust	—	<u>16,287,783</u>	—	<u>16,287,783</u>
Total assets at fair value	<u>\$326,351,012</u>	<u>\$16,287,783</u>	<u>\$—</u>	<u>\$342,638,795</u>

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**
NOTES TO FINANCIAL STATEMENTS — (Continued)

	Assets at Fair Value as of December 31, 2009			
	Level 1	Level 2	Level 3	Total
Registered investment companies:				
Balanced funds	\$ 12,525,582	\$ —	\$—	\$ 12,525,582
Income funds	26,478,440	—	—	26,478,440
Bond funds	21,676,484	—	—	21,676,484
Growth funds	65,291,550	—	—	65,291,550
Index funds	7,077,537	—	—	7,077,537
Mid-Cap funds	14,659,024	—	—	14,659,024
International funds	22,671,365	—	—	22,671,365
Corporate stock	110,202,905	—	—	110,202,905
Common/collective trust	—	12,879,067	—	12,879,067
Total assets at fair value	<u>\$280,582,887</u>	<u>\$12,879,067</u>	<u>\$—</u>	<u>\$293,461,954</u>

5. Investments

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect Participant account balances and the amounts reported in the statements of net assets available for benefits and the statement of changes in net assets available for benefits.

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST**

NOTES TO FINANCIAL STATEMENTS — (Continued)

During 2010, the Plan's investments (including investments purchased and sold, as well as held during the year) appreciated (depreciated) in fair value as determined by quoted market prices for common stocks and published market prices for registered investment companies as follows:

Atmos Energy Corporation Common Stock	\$ 7,434,894
Registered Investment Companies:	
T. Rowe Price Balanced Fund	1,265,310
T. Rowe Price Spectrum Income Fund	373,005
T. Rowe Price Spectrum Growth Fund	3,431,804
T. Rowe Price Short-Term Bond Fund	11,468
T. Rowe Price U.S. Bond Index Fund	432,992
T. Rowe Price New Horizons Fund	3,753,685
T. Rowe Price Mid-Cap Value Fund	2,091,139
T. Rowe Price New America Growth Fund	1,663,618
T. Rowe Price Equity Income Fund	2,669,181
T. Rowe Price Equity Index 500 Fund	879,380
T. Rowe Price Growth Stock Fund	1,396,329
Harbor International Fund	2,593,543
T. Rowe Price Retirement 2005 Fund	5,993
T. Rowe Price Retirement 2010 Fund	57,261
T. Rowe Price Retirement 2015 Fund	211,771
T. Rowe Price Retirement 2020 Fund	294,784
T. Rowe Price Retirement 2025 Fund	206,385
T. Rowe Price Retirement 2030 Fund	225,947
T. Rowe Price Retirement 2035 Fund	194,078
T. Rowe Price Retirement 2040 Fund	157,172
T. Rowe Price Retirement 2045 Fund	174,079
T. Rowe Price Retirement 2050 Fund	88,965
T. Rowe Price Retirement 2055 Fund	24,720
T. Rowe Price Retirement Income Fund	3,853
Common Stock of Entergy Corporation	(17,397)
Common Stock of Frontier Communications Corporation, Class B	56,584
	<u>\$29,680,543</u>

6. Party-in-Interest Transactions

Certain Plan investments in registered investment companies and a common/collective trust fund are managed by T. Rowe Price. T. Rowe Price is the custodian and recordkeeper; therefore, these transactions qualify as party-in-interest transactions. Additionally, a portion of the Plan's assets are invested in Atmos Energy common stock. Because the Company is the Plan sponsor, transactions involving Atmos Energy common stock qualify as party-in-interest transactions. All of these party-in-interest transactions are exempt from the prohibited transaction rules. At December 31, 2010 and 2009, the Plan held 3,992,163 and 3,736,122 shares of Atmos Energy common stock and received \$5,217,680 in dividends from Atmos Energy common stock during 2010.

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST
NOTES TO FINANCIAL STATEMENTS — (Continued)**

At December 31, 2010 and 2009 the percentage of the Plan's investments held in the Company's common stock was 36.4% and 37.4%.

7. Income Tax Status

The Plan has received a determination letter from the IRS dated November 1, 2002 stating that the Plan is qualified under Section 401(a) of the Code; therefore, the related trust is exempt from taxation. Subsequent to this determination by the IRS, the Plan was amended. Once qualified, the Plan is required to operate in conformity with the Code to maintain its qualification. In January 2008, the Plan submitted an application with the IRS to receive a new determination letter stating that the Plan is qualified under Section 401(a) of the Code. The Plan administrator believes the Plan is being operated in compliance with the applicable requirements of the Code and therefore believes that the Plan, as amended, is qualified and the related trust is tax-exempt.

8. Reconciliation of the Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements to the Form 5500:

	December 31,	
	2010	2009
Net assets available for benefits per the financial statements	\$358,272,237	\$307,611,208
Adjustment from contract value to fair value for fully benefit-responsive investment contracts	588,709	386,755
Net assets available for benefits per the Form 5500	<u>\$358,860,946</u>	<u>\$307,997,963</u>

The following is a reconciliation of the net increase in net assets available for benefits as of December 31, 2010 per the financial statements to the Form 5500:

	Year Ended December 31, 2010
Net increase in net assets available for benefits per the financial statements	\$50,661,029
Change in adjustment from contract value to fair value for fully benefit-responsive investment contracts	201,954
Net increase in net assets available for benefits per the Form 5500	<u>\$50,862,983</u>

**ATMOS ENERGY CORPORATION RETIREMENT
SAVINGS PLAN AND TRUST
Form 5500, SCHEDULE H, LINE 4i -
SCHEDULE OF ASSETS (HELD AT END OF YEAR)
EIN: 75-1743247
PLAN NUMBER: 002
December 31, 2010**

(a)	(b) Identity of Issue, Borrower, Lessor or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, par or Maturity Value	(d) Cost	(e) Current Value
*	Atmos Energy Corporation	Common stock; 3,992,163 shares***	**	\$124,555,479
*	T. Rowe Price Trust Company	Stable Value Common Trust Fund	**	16,287,783
*	T. Rowe Price Trust Company	Balanced Fund	**	14,008,141
*	T. Rowe Price Trust Company	Spectrum Income Fund	**	8,669,161
*	T. Rowe Price Trust Company	Spectrum Growth Fund***	**	25,405,127
*	T. Rowe Price Trust Company	Short-Term Bond Fund	**	3,468,474
*	T. Rowe Price Trust Company	U.S. Bond Index Fund***	**	20,974,721
*	T. Rowe Price Trust Company	New Horizons Fund	**	16,566,001
*	T. Rowe Price Trust Company	Mid-Cap Value Fund	**	16,973,417
*	T. Rowe Price Trust Company	New America Growth Fund	**	11,294,484
*	T. Rowe Price Trust Company	Equity Income Fund***	**	23,612,750
*	T. Rowe Price Trust Company	Equity Index 500 Fund	**	8,022,877
*	T. Rowe Price Trust Company	Growth Stock Fund	**	10,649,415
*	Harbor Capital Advisors, Inc.	Harbor International Fund***	**	26,783,284
*	T. Rowe Price Trust Company	Retirement 2005 Fund	**	80,748
*	T. Rowe Price Trust Company	Retirement 2010 Fund	**	708,061
*	T. Rowe Price Trust Company	Retirement 2015 Fund	**	2,082,587
*	T. Rowe Price Trust Company	Retirement 2020 Fund	**	2,883,462
*	T. Rowe Price Trust Company	Retirement 2025 Fund	**	1,883,167
*	T. Rowe Price Trust Company	Retirement 2030 Fund	**	2,007,834
*	T. Rowe Price Trust Company	Retirement 2035 Fund	**	1,567,318
*	T. Rowe Price Trust Company	Retirement 2040 Fund	**	1,281,573
*	T. Rowe Price Trust Company	Retirement 2045 Fund	**	1,444,631
*	T. Rowe Price Trust Company	Retirement 2050 Fund	**	759,724
*	T. Rowe Price Trust Company	Retirement 2055 Fund	**	219,310
*	T. Rowe Price Trust Company	Retirement Income Fund	**	50,974
	Entergy Corporation	Common stock; 1,574 shares	**	111,536
	Frontier Communications	Common stock; 29,471 shares	**	286,756
*	Participant Loans	Interest rates from 5.25% to 11.00%	-0-	15,161,034
				\$357,799,829

* Indicates party-in-interest to the Plan

** Cost information in column (d) is not required for participant-directed investments

*** Indicates investment that represents 5 percent or more of the Plan's net assets available for benefits

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Qualified Retirement Plans and Trusts Committee, the Trustee, of the Atmos Energy Corporation Retirement Savings Plan and Trust, as amended, has duly caused this annual report to be signed on its behalf by the undersigned, hereunto duly authorized.

ATMOS ENERGY CORPORATION
RETIREMENT SAVINGS PLAN AND TRUST

By: /s/ FRED E. MEISENHEIMER

Fred E. Meisenheimer
Chairman of the Qualified
Retirement Plans and
Trusts Committee

June 21, 2011

EXHIBITS INDEX

<u>Exhibit Number</u>	<u>Description</u>	<u>Page Number or Incorporation by Reference to</u>
4	Instruments defining rights of security holders: (a) Atmos Energy Corporation Retirement Savings Plan and Trust (Amended and Restated Effective January 1, 2011)	
23.1	Consent of Independent Registered Public Accounting Firm, Whitley Penn LLP	