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June 30, 2021

Linda C. Bridwell
Executive Director
Public Service Commission
211 Sower Blvd.
Frankfort, KY 40601

Re: Atmos Energy Corporation
Case No. 2021-00214

Dear Ms. Bridwell:

Atmos Energy Corporation submits its petition for adjustment of rates. I certify that the electronic documents are true and correct copies of the original documents and that the paper copy will be filed pursuant to the Commission's COVID-19 orders.

If you have any questions about this filing, please contact me.

Submitted By:

Mark R. Hutchinson
Wilson, Hutchinson and Littlepage
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270 926 5011
randy@whplawfirm.com

And

John N. Hughes

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Attorneys for Atmos Energy Corporation

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

Application of Atmos Energy Corporation)
for an Adjustment of Rates) Case No. 2021-00214
and Tariff Modifications)

APPLICATION FOR ADJUSTMENT OF RATES AND TARIFF MODIFICATIONS

1. Atmos Energy Corporation ("Atmos Energy"), by counsel, pursuant to KRS 278.180, KRS 278.190, 807 KAR 5:001(14) and (16) and 807 KAR 5:011 submits the attached revised tariffs and proposes that certain gas rates and revised tariff provisions for its Kentucky Division become effective on July 30, 2021. This Application and the attached supporting exhibits contain the facts on which the relief being requested is based, a request for the relief sought and references to the particular provisions of law requiring or providing for the relief sought as specified in 807 KAR 5:001. Correspondence and communications with respect to this Application should be directed to:

Brannon Taylor,
Atmos Energy Corporation,
810 Crescent Centre Dr. Ste 600
Franklin, Tennessee, 37067
(615) 771-8330
(615) 771-8301
Brannon.Taylor@atmosenergy.com

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2. Atmos Energy is a utility as defined by KRS 278.010 (3)(b) and is subject to the jurisdiction of the Public Service Commission ("Commission"), pursuant to KRS 278.040. Atmos Energy delivers natural gas to approximately three million residential, commercial, industrial and public-authority customers in eight states. It has six gas utility operating divisions. They are located in Denver, Colorado (Kansas and Colorado Division); Baton Rouge, Louisiana (Louisiana division); Jackson, Mississippi (Mississippi Division); Lubbock, Texas (West Texas Division); Dallas, Texas (Mid-Tex Division); and Franklin, Tennessee (Kentucky/Mid-States).

3. The President of the Atmos Energy Kentucky/Mid-States Division is J. Kevin Dobbs. The Vice President – Rates and Regulatory Affairs for the Kentucky/Mid-States Division is Brannon Taylor. Atmos Energy's corporate office address is:

Atmos Energy Corporation
5430 LBJ Freeway
1800 Three Lincoln Centre
Dallas, TX 75240
P.O. Box 650205
Dallas, Texas 75265-0205
www.atmosenergy.com

Atmos Energy' s Kentucky/Mid-States Division office location is:

3275 Highland Pointe Dr.
Owensboro, KY 42303
270 685 8000 Ph.
(270) 689-2076 fax
(Brannon.Taylor@atmosenergy.com)

4. Atmos Energy was initially incorporated in Texas on February 6, 1981 and in Virginia on July 21, 1997. Its articles of incorporation were filed in Case No. 2018-00281. Applicant attests that it is a foreign corporation in good standing to operate in Kentucky. Atmos Energy does not operate under an assumed name in Kentucky.

5. Atmos Energy serves approximately 179,900 customers in central and western Kentucky. The customer base includes residential, commercial and industrial customers. Residential class customers account for the majority of meters of approximately 159,800. Atmos Energy's natural gas deliveries totaled approximately 47.7 Bcf during the 12-month period ending March, 2021.

6. Atmos Energy's Annual Reports including the 2020 report are on file with the Commission as required by 807 KAR 5:006§4(1 and 2).

7. Notice of Intent to file a rate application was delivered to the Executive Director and the Attorney General on May 21, 2021. A copy of that notice is filed as FR 16(2)(c) in Volume 3.

8. In this Application, Atmos Energy proposes rates that will result in an overall approximate increase in the amount of $16,389,804.00 annually or 9.4% with increases of approximately $9,630,868.00 or 9.6% for residential consumers,

and $3,835,279.00 or 7.8% for commercial and public authority consumers, and approximately $2,806,544.00 or 12.3% for industrial and transportation consumers. Charges from other gas revenue will increase $117,113.00 or 7.6%. The average monthly bill for residential consumers will increase approximately $4.99 or 9.6%. The average monthly bill for commercial and public authority consumers will increase approximately $16.17 or 7.8%. The average monthly bill for industrial and transportation customers will increase approximately $551.61 or 12.3%. The actual increases by amount and percentage for each customer class are listed in the schedule attached as FR 17(4)(a)(b) and (c) in Volume 6.

9. Pursuant to KRS 278.192(1), this filing is based upon a fully forecasted test year using a base period October 1, 2020 through September 30, 2021 ("Base Period") and the forecasted test period is January 1, 2022 through December 31, 2022 ("Test Period"). As required by KRS 278.192(2), within 45 days after the end of base period, the actual results for the estimated months will be filed.

10. The reasons for the proposed rate adjustment are declining return on equity and inadequate revenue to continue to provide the quality of service required by the Commission and demanded by our customers. Revised rates are necessary to allow Atmos Energy the opportunity to recover its reasonable operating costs and to earn a reasonable return on its investment. The rate increase is needed to provide sufficient revenue for Atmos Energy to maintain its facilities and provide the level of service mandated by the Commission and the public. This revenue is also necessary for the attraction of additional capital. The existing rates are inadequate for these purposes and thus fail to meet the fair, just and reasonable

standard. A more detailed explanation of the need for the rate adjustment is provided in the testimony filed as FR 16(7)(a), Volumes 1 and 2.

11. In addition to the adjustment of distribution rates, Atmos Energy is proposing certain tariff proposals are as follows:

- The revision of the Rate Book Index on Sheet Nos. 1 and 2 to reflect the changes described below.

- The removal of the word “experimental” from the Company’s PBR mechanism.

- The removal of parking service and references to parking service from the Company’s Tariff on Sheet Nos. 47, 48, 54, 55, and 60. This tariff modification would affect customers under Company’s Rate Schedules T-3 and T-4.

- The replacement of the Natural Gas Weekly pricing index with the use of the highest and lowest Gas Daily weekly average pricing index for imbalance pricing calculations on Sheets Nos. 48 and 55. This tariff modification would affect customers under Company’s Rate Schedules T-3 and T-4.

- The following changes on Sheet No. 87 to the Priorities of Curtailment: (1) Combine all Commercial service under Rate G-1 into Priority Level 2; (2) Combine Industrial service under Rate G-1 and Rate T-4 Service to new Priority Level 3; (3) Combine service under Rate G-2 Service and Rate T-3 Service to new Priority Level 4; and (4) Make Flex Sales Transactions new Priority Level 5.

- Create the ability to issue Operational Flow Orders to transportation customers on Sheet Nos. 88A and 88B. This tariff modification would affect customers under Company's Rate Schedules T-3 and T-4 and would require actions by Customers to alleviate conditions that, in the sole judgment of Company, jeopardize the operational integrity of Company's system.

- Modification of the Company's Pipeline Replacement Program (PRP) tariff to permit inclusion of Aldyl-A pipe on Sheet No. 38. This tariff modification would amend the PRP applicable under the Company's Rate Schedules G-1, G-2, T-3, and T-4.

- Proposal of the Tax Act Adjustment Factor ("TAAF") on Sheet No. 42 to be utilized to implement the effects of future changes of the Federal and/or state income tax rates on the most recently approved base rates, which could be a collection from customers or a pass back to customers. The Tariff will be set at zero until the effective date of a new a Federal and/or state income tax rate and approval by the Commission of a TAAF rate. This tariff modification would be applicable under the Company's Rate Schedules G-1, G-2, T-3 and T-4. Any future adjustments to the TAAF rate would require Kentucky Public Service Commission approval.

12. Atmos Energy is providing notice of this filing to its customers and interested parties by publication in newspapers of general circulation and posting in each of Atmos Energy local offices for public inspection as well as posting on its website. A copy of the notice is in contained in FR 17 (1)(a-c) Volume 6.

13. Atmos Energy requests that the Commission allow the proposed rate changes to take effect without delay.

14. Atmos Energy also requests a deviation pursuant to 807 KAR 5:006(28) from any rule, regulation or other requirement that might otherwise delay or impede the review and approval of this Application.

15. All filing requirements (FR) of 807 KAR 5:001 are listed in the table attached to this application.

16. The most recent Cost Allocation Manual (CAM) was provided to the Commission on April 8, 2021 and is incorporated by reference in compliance with KRS 278.2205(6).

17. Based on the information provided and in compliance with all filing requirements of KRS Chapter 278 and 807 KAR 5:001, Atmos Energy requests that the Commission issue an order approving the proposed rates and the proposed tariff revisions and granting all other appropriate relief.

Submitted by:

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Attorneys for Atmos Energy Corporation

CERTIFICATE
In accordance with the requirements of 807 KAR 5:001(8), I certify that this electronic filing is a true and accurate copy of the documents to be filed in paper medium; that the electronic filing has been transmitted to the Commission on June 30, 2021; that an original of the filing will be delivered to the Commission as provided by the Commission's COVID-19 orders; and that no party has been excused from participation by electronic means.

John N. Hughes

Law/Regulation	Filing Requirement	Witness	Volume No.
Section 16(7)(a)	Prepared testimony of each witness supporting its application including testimony from chief officer in charge of Kentucky operations on the existing programs to achieve improvements in efficiency and productivity, including an explanation of the purpose of the program;	Austin, Christian, D'Ascendis, Densman, Faulk, Raab, Taylor, Watson	1, 2
Section 14(2)	If a corporation, identify the state that applicant is incorporated, attest that it is currently in good standing in the state it is organized and if not a Kentucky corporation attest that it is authorized to do business in Kentucky.	Taylor	3
Section 16(1)(b)1	A statement of the reason the adjustment is required.	Taylor	3
Section 16(1)(b)2	A certified copy of a certificate of assumed name as required by KRS 365.015 or a statement that such a certificate is not necessary.	Taylor	3
Section 16(1)(b)3	The proposed tariff in form complying with 807 KAR 5:011 with an effective date not less than thirty (30) days from the date the application is filed.	Taylor	3
Section 16(1)(b)4	Proposed tariff changes shown either by providing present and proposed tariffs in comparative form or indicating additions by italicized inserts or underscoring and striking over deletions in a copy of the current tariff.	Taylor	3
Section 16(1)(b)5	A statement that customer notice has been given in compliance with Section 17 with a copy of the notice.	Taylor	3
Section 16(2)(a)-(c)	Notice of intent. A utility with gross annual revenues greater than $5,000,000 shall notify the commission in writing of intent to file a rate application at least thirty (30) days, but not more than sixty (60) days, prior to filing its application. (a) The notice of intent shall state if the rate application will be supported by a historical test period or a fully forecasted test period. (b) Upon filing the notice of intent, an application may be made to the commission for permission to use an abbreviated form of newspaper notice of proposed rate increases provided the notice includes a coupon that may be used to obtain a copy from the applicant of the full schedule of increases or rate changes. (c) The applicant shall also transmit by electronic mail a copy of the notice in a portable document format to the Attorney General's Office of Rate Intervention at rateintervention@ag.ky.gov.	Taylor	3
Section 16(6)(a)	Financial data for forecasted period presented as pro forma adjustments to base period.	Christian, Densman	3
Section 16(6)(b)	Forecasted adjustments shall be limited to the 12 months immediately following the suspension period.	Christian, Densman	3
Section 16(6)(c)	Capitalization and net investment rate base shall be based on a 13 month average for the forecasted period.	Christian	3
Section 16(6)(d)	After an application based on a forecasted test period is filed, there shall be no revisions to the forecast, except for the correction of mathematical errors, unless the revisions reflect statutory or regulatory enactments that could not, with reasonable diligence, have been included in the forecast on the date it was filed. There shall be no revisions filed within thirty (30) days of a scheduled hearing on the rate application.	Taylor	3
Section 16(6)(e)	The commission may require the utility to prepare an alternative forecast based on a reasonable number of	Taylor	3

Law/Regulation	Filing Requirement	Witness	Volume No.
	changes in the variables, assumptions, and other factors used as the basis for the utility's forecast.		
Section 16(6)(f)	The utility shall provide a reconciliation of the rate base and capital used to determine its revenue requirements.	Christian	3
Section 16(7)(b)	Most recent capital construction budget containing at minimum 3 year forecast of construction expenditures	Christian	3
Section 16(7)(c)	Complete description, which may be in pre-filed testimony form, of all factors used to prepare forecast period. All econometric models, variables, assumptions, escalation factors, contingency provisions, and changes in activity levels shall be quantified, explained, and properly supported;	Austin, Christian, Densman	3
Section 10(7)(d)	Annual and monthly budget for the 12 months preceding filing date, base period and forecasted period;	Christian	3
Section 16(7)(e)	Attestation signed by utility's chief officer in charge of Kentucky operations providing: 1. That forecast is reasonable, reliable, made in good faith and that all basic assumptions used have been identified and justified; and 2. That forecast contains same assumptions and methodologies used in forecast prepared for use by management, or an identification and explanation for any differences; and 3. That productivity and efficiency gains are included in the forecast;	Taylor	3
Section 16(7)(f)	For each major construction project constituting 5% or more of annual construction budget within 3 year forecast, following information shall be filed: 1. Date project began or estimated starting date; 2. Estimated completion date; 3. Total estimated cost of construction by year exclusive and inclusive of Allowance for Funds Used During Construction ("AFUDC") or Interest During Construction Credit; and 4. Most recent available total costs incurred exclusive and inclusive of AFUDC or Interest During Construction Credit;	Austin	3
Section 16(7)(g)	For all construction projects constituting less than 5% of annual construction budget within 3 year forecast, file aggregate of information requested in paragraph (f) 3 and 4 of this subsection;	Austin, Christian	3
Section 16(7)(h)	Financial forecast for each of 3 forecasted years included in capital construction budget supported by underlying assumptions made in projecting results of operations and including the following information:		
	1. Operating income statement (exclusive of dividends per share or earnings per share);	Christian, Densman	3
	2. Balance sheet;	Christian	3
	3. Statement of cash flows;	Christian	3
	4. Revenue requirements necessary to support the forecasted rate of return;	Christian	3
	5. Load forecast including energy and demand (electric);	Not Applicable	3
	6. Access line forecast (telephone);	Not Applicable	3
	7. Mix of generation (electric);	Not Applicable	3
	8. Mix of gas supply (gas);	Densman	3

Law/Regulation	Filing Requirement	Witness	Volume No.
	9. Employee level;	Christian	3
	10. Labor cost changes;	Christian	3
	11. Capital structure requirements;	Christian	3
	12. Rate base;	Christian	3
	13. Gallons of water projected to be sold (water);	Not Applicable	3
	14. Customer forecast (gas, water);	Densman	3
	15. MCF sales forecasts (gas);	Densman	3
	16. Toll and access forecast of number of calls and number of minutes (telephone); and	Not Applicable	3
	17. A detailed explanation of other information provided, if applicable;	Not Applicable	3
Section 16(7)(i)	Most recent FERC or FCC audit reports;	Faulk	3
Section 16(7)(j)	Prospectuses of most recent stock or bond offerings;	Faulk	3
Section 16(7)(k)	Most recent FERC Form 1 (electric), FERC Form 2 (gas), or the Automated Reporting Management Information System Report (telephone) and PSC Form T (telephone);	Faulk	3
Section 16(7)(l)	The annual report to shareholders or members and the statistical supplements covering the most recent two (2) years from the application filing date;	Faulk	3, 4
Section 16(7)(m)	Current chart of accounts if more detailed than Uniform System of Accounts chart;	Faulk	4
Section 16(7)(n)	Latest 12 months of the monthly managerial reports providing financial results of operations in comparison to forecast;	Christian	4
Section 16(7)(o)	Complete monthly budget variance reports, with narrative explanations, for the 12 months prior to base period, each month of base period, and subsequent months, as available;	Christian, Faulk	4
Section 16(7)(p)	SEC's annual report for most recent 2 years, Form 10-Ks and any Form 8-Ks issued during prior 2 years and any Form 10-Qs issued during past 6 quarters;	Faulk	5, 6
Section 16(7)(q)	Independent auditor's annual opinion report, with any written communication which indicates the existence of a material weakness in internal controls;	Faulk	6
Section 16(7)(r)	Quarterly reports to the stockholders for the most recent 5 quarters;	Faulk	6
Section 16(7)(s)	Summary of latest depreciation study with schedules itemized by major plant accounts, except that telecommunications utilities adopting PSC's average depreciation rates shall identify current and base period depreciation rates used by major plant accounts. If information has been filed in another PSC case, refer to that case's number and style;	Watson	6
Section 16(7)(t)	List all commercial or in-house computer software, programs, and models used to develop schedules and work papers associated with application. Include each software, program, or model; its use; identify the supplier of each; briefly describe software, program, or model; specifications for computer hardware and operating system required to run program	Christian	6
Section 16(7)(u)	If the utility had any amounts charged or allocated to it by an affiliate or general or home office or paid any monies to an affiliate or general or home office during the base period or during the previous three (3) calendar years, the utility shall file:	Christian, Faulk	6

Law/Regulation	Filing Requirement	Witness	Volume No.
	1. Detailed description of method of calculation and amounts allocated or charged to utility by affiliate or general or home office for each allocation or payment; 2. Method and amounts allocated during base period and method and estimated amounts to be allocated during forecasted test period; 3. Explain how allocator for both base and forecasted test period was determined; and 4. All facts relied upon, including other regulatory approval, to demonstrate that each amount charged, allocated or paid during base period is reasonable.		
Section 16(7)(v)	If gas, electric or water utility with annual gross revenues greater than $5,000,000, cost of service study based on methodology generally accepted in industry and based on current and reliable data from single time period;	Raab	6
Section 16(7)(w)	Incumbent local exchange carriers with fewer than 50,000 access lines shall not be required to file cost of service studies, except as specifically directed by the commission. Local exchange carriers with more than 50,000 access lines shall file: 1. A jurisdictional separations study consistent with 47 C.F.R. Part 36; and 2. Service specific cost studies to support the pricing of all services that generate annual revenue greater than $1,000,000 except local exchange access: a. Based on current and reliable data from a single time period; and b. Using generally recognized fully allocated, embedded, or incremental cost principles.	Not Applicable	6
Section 16(8)(a)	Jurisdictional financial summary for both base and forecasted periods detailing how utility derived amount of requested revenue increase;	Christian	6
Section 16(8)(b)	Jurisdictional rate base summary for both base and forecasted periods with supporting schedules which include detailed analyses of each component of the rate base;	Christian	6
Section 16(8)(c)	Jurisdictional operating income summary for both base and forecasted periods with supporting schedules which provide breakdowns by major account group and by individual account;	Christian, Densman	6
Section 16(8)(d)	Summary of jurisdictional adjustments to operating income by major account with supporting schedules for individual adjustments and jurisdictional factors;	Christian, Densman	6
Section 16(8)(e)	Jurisdictional federal and state income tax summary for both base and forecasted periods with all supporting schedules of the various components of jurisdictional income taxes;	Christian	6
Section 16(8)(f)	Summary schedules for both base and forecasted periods (utility may also provide summary segregating items it proposes to recover in rates) of organization membership dues; initiation fees; expenditures for country club; charitable contributions; marketing, sales, and advertising; professional services; civic and political activities; employee parties and outings; employee gifts; and rate cases;	Christian	6

Law/Regulation	Filing Requirement	Witness	Volume No.
Section 16(8)(g)	Analyses of payroll costs including schedules for wages and salaries, employees benefits, payroll taxes straight time and overtime hours, and executive compensation by title;	Christian	6
Section 16(8)(h)	Computation of gross revenue conversion factor for forecasted period;	Christian	6
Section 16(8)(i)	Comparative income statements (exclusive of dividends per share or earnings per share), revenue statistics and sales statistics for 5 calendar years prior to application filing date, base period, forecasted period, and 2 calendar years beyond forecast period;	Christian, Densman, Faulk	6
Section 16(8)(j)	Cost of capital summary for both base and forecasted periods with supporting schedules providing details on each component of the capital structure	Christian	6
Section 16(8)(k)	Comparative financial data and earnings measures for the 10 most recent calendar years, base period, and forecast period;	Christian, Densman, Faulk	6
Section 16(8)(l)	Narrative description and explanation of all proposed tariff changes;	Taylor	6
Section 16(8)(m)	Revenue summary for both base and forecasted periods with supporting schedules which provide detailed billing analyses for all customer classes; and	Densman	6
Section 16(8)(n)	Typical bill comparison under present and proposed rates for all customer classes.	Taylor	6
Section 16(10)	A request for waiver of provisions of these filing requirements shall establish the specific reasons for the request. The commission shall grant the request for waiver upon good cause shown by the utility. In determining if good cause has been shown, the commission shall consider: (a) If other information that the utility would provide if the waiver is granted is sufficient to allow the commission to effectively and efficiently review the rate application; (b) If the information that is the subject of the waiver request is normally maintained by the utility or reasonably available to it from the information that it maintains; and (c) The expense to the utility in providing the information that is the subject of the waiver request.	Taylor	6
Section 17(1)(a)-(c)	Notice of General Rate Adjustment. Upon filing an application for a general rate adjustment, a utility shall provide notice as established in this section. (1) Public postings. (a) A utility shall post a sample copy of the required notification at its place of business no later than the date on which the application is filed. (b) A utility that maintains a public web site shall, within five (5) business days of filing an application, post a copy of the public notice as well as a hyperlink to its filed application on the commission's Web site. (c) The information required in paragraphs (a) and (b) of this subsection shall not be removed until the commission issues a final decision on the application.	Taylor	6
Section 17(2)(b)(3)	Publish notice once a week for three (3) consecutive weeks in a prominent manner in a newspaper of general	Taylor	6

Law/Regulation	Filing Requirement	Witness	Volume No.
	circulation in the utility's service area, the first publication to be made by the date the application is filed.		
Section 17(3)(b)	If the notice is published, an affidavit from the publisher verifying the notice was published, including the dates of the publication with an attached copy of the published notice, shall be filed with the commission no later than forty-five (45) days of the filed date of the application.	Taylor	6
Section 17(4)(a)-(j)	Notice Requirements. Each notice shall contain the following information: (a) The proposed effective date and the date the proposed rates are expected to be filed with the Commission; (b) The present rates and proposed rates for each customer class to which the proposed rates will apply; (c) The amount of the change requested in both dollar amounts and percentage change for customer classification to which the proposed rate change will apply; (d) The amount of the average usage and the effect upon the average bill for each customer class to which the proposed rate change will apply, except for local exchange companies, which shall include the effect upon the average bill for each customer class for the proposed rate change in basic local service; (e) A statement that a person may examine this application at the office of (utility name) located at (utility address); (f) A statement that a person may examine this application at the commission's offices located at 211 Sower Boulevard, Frankfort, Kentucky, Monday through Friday, 8:00 a.m. to 4:30 p.m., or through the commission's Web site at http://psc.ky.gov; (g) A statement that comments regarding this application may be submitted to the Public Service Commission through its Web site or my mail to Public Service Commission, Post Office Box 615, Frankfort, Kentucky 40602; (h) A statement that the rates contained in this notice are the rates proposed by (name of utility) but that the Public Service Commission may order rates to be charged that differ from the proposed rates contained in this notice; (i) A statement that a person may submit a timely written request for intervention to the Public Service Commission, Post Office Box 615, Frankfort, Kentucky 40602, establishing the grounds for the request including the status and interest of the party; and (j) A statement that if the commission does not receive a written request for intervention within thirty (30) days of the initial publication or mailing of the notice, the commission may take final action on the application.	Taylor	6

State of Tennessee

County of Davidson

VERIFICATION

I, Brannon Taylor, after being duly sworn, state that I am Vice President of Rates & Regulatory Affairs of Kentucky/Mid-States, a division of Atmos Energy Corporation and that I am authorized to submit this application on behalf of the Company and that the information and statements contained in the Application are true of my own knowledge except as to those matters stated on information and belief, and as to those matters I believe them to be true.

Brannon Taylor

SUBSCRIBED, ACKNOWLEDGED AND SWORN to before me by

Brannon Taylor on this the 21st day of June, 2021.

MENDES A. GIVENS

Notary Public

My Commission Expires
May 5, 2025

My Commission expires: ____________________

BEFORE THE PUBLIC SERVICE COMMISSION

COMMONWEALTH OF KENTUCKY

APPLICATION OF ATMOS ENERGY	**)**	
	)	
CORPORATION FOR AN ADJUSTMENT	**)**	**Case No. 2021-00214**
	)	
OF RATES AND TARIFF MODIFICATIONS	**)**	

TESTIMONY OF BRANNON C. TAYLOR

INDEX TO THE DIRECT TESTIMONY
OF BRANNON C TAYLOR, WITNESS FOR
ATMOS ENERGY CORPORATION

I. INTRODUCTION

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

A. My name is Brannon C. Taylor. I am Vice President - Rates and Regulatory Affairs for the Kentucky/Mid-States Division of Atmos Energy Corporation ("Atmos Energy" or the "Company"). My business address is 810 Crescent Centre Dr. Ste 600, Franklin, Tennessee, 37067.

Q. PLEASE BRIEFLY DESCRIBE YOUR CURRENT RESPONSIBILITIES, AND PROFESSIONAL AND EDUCATIONAL BACKGROUND.

A. I am responsible for all rate and regulatory matters in Kentucky, Tennessee and Virginia. I graduated from Vanderbilt University in 2009 with a degree in Political Science. I also graduated from Emory University in 2012 with a law degree and am a licensed attorney. I have been with Atmos Energy Corporation since September 2012. I have served in a variety of positions of increasing responsibility in both the Corporate Rates and Regulatory Affairs group as well as the Kentucky/Mid-States Division prior to assuming my current responsibilities in 2020.

Q. HAVE YOU SUBMITTED TESTIMONY BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION ("COMMISSION")?

A. No.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY ON MATTERS BEFORE OTHER STATE REGULATORY COMMISSIONS?

A. Yes, I have filed testimony before the Tennessee Public Utility Commission.

Q. ARE YOU SPONSORING ANY OF THE FILING REQUIREMENTS IN THIS CASE, AND, IF SO, WHICH REQUIREMENTS?

A. Yes. I am sponsoring the following filing requirements:

FR 16(1)(a)(2)	Application Supported by a Fully Forecasted Test Period
FR 14(2)	Certified Copy of Articles of Incorporation
FR 16(1)(b)(1)	Statement of Reasons
FR 16(1)(b)(2)	Compliance with KRS 365.015
FR 16(1)(b)(3)	Proposed Tariffs
FR 16(1)(b)(4)	Proposed Tariff Changes
FR 16(1)(b)(5)	Statement on Customer Notice
FR 16(2)(a)-(c)	Notice of Intent
FR 16(7)(a)	Statement of Officer in Charge of Kentucky Operations
FR 16(7)(e)	Statement of Attestation
FR 16(8)(l)	Narrative of Proposed Tariff Changes
FR 16(8)(n)	Bill Comparison
FR 16(10)	Request for Waiver of Certain Filing Requirements
FR 17(1)(a)-(c)	Notice of General Rate Adjustment

FR 17(2)(b)3	Manner of Notification
FR 17(3)(b)	Publisher Affidavits
FR 17(4)(a)-(j)	Notice Requirements

Q. ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR TESTIMONY?

A. Yes, I am sponsoring Exhibits BCT-1 and BCT-2 which are attached to my testimony.

Q. DO YOU ADOPT THESE FILING REQUIREMENTS AND EXHIBITS AND MAKE THEM PART OF YOUR TESTIMONY?

A. Yes. I adopt the filing requirements and exhibits and make them a part of my testimony.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My direct testimony will address several areas. First, I will briefly describe the Company's operations in Kentucky and the recent history of its rate proceedings before this Commission. Second, I will provide an overview of the Company's customer base and market trends since its last filed rate case. Third, I will describe the principal factors leading the Company to file this rate application and address the Company's efforts to achieve improvements to its efficiency and productivity. Fourth, I will introduce the other witnesses who will be providing support for the requested rate increase. Finally, I will present the rates and various tariff changes proposed by the Company.

III. ATMOS ENERGY'S OPERATIONS IN KENTUCKY

Q. CAN YOU PROVIDE THE COMMISSION WITH A GENERAL DESCRIPTION AND BACKGROUND OF THE COMPANY'S OPERATIONS IN KENTUCKY?

A. Yes. We have a Kentucky-based work force of approximately 186 employees providing safe and reliable service to a customer base of approximately 179,900 residential, commercial, industrial, and transmission consumers. Our utility plant in Kentucky includes over 4,200 miles of transmission and distribution lines.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF ATMOS ENERGY'S CORPORATE STRUCTURE AND HOW IT ENABLES THE COMPANY TO BE AN EFFICIENT, LOW COST PROVIDER OF NATURAL GAS.

A. Atmos Energy is the largest pure natural gas distribution company in the United States, delivering natural gas to over 3 million residential, commercial, industrial and public-authority customers in 8 states. Atmos Energy has six gas utility operating divisions. They are located in Denver, Colorado (Kansas and Colorado division); Baton Rouge, Louisiana (Louisiana division); Flowood, Mississippi (Mississippi division); Lubbock, Texas (West Texas division); Dallas, Texas (Mid-Tex division); and Owensboro, Kentucky and Franklin, Tennessee (Kentucky/Mid-

States division). In addition, Atmos Energy has an operating division consisting of a regulated intrastate pipeline that functions only within the state of Texas.

Atmos Energy's corporate offices are located in Dallas, Texas and provide services such as accounting, legal, human resources, rate administration, procurement, information technology and customer service organizations. The Company also has two customer contact centers located in Amarillo and Waco, Texas. These centralized services are shared with the other Atmos Energy operating divisions in order to avoid having to staff and maintain these functions at each division level. These centralized services are the technical and administrative services that would be required by each division if it were a stand-alone company. Atmos Energy believes that this structure provides it with an efficiency advantage and enables it to be a low-cost, high-quality provider of natural gas.

IV. OVERVIEW OF SERVICE AREA AND CUSTOMER BASE

Q. WHAT ARE THE COMPANY'S PRIMARY OBJECTIVES IN ITS KENTUCKY OPERATIONS?

A. We strive to be the safest provider of natural gas service in the United States. The Company is very proud of its tradition as a low-cost, efficient provider of natural gas service. Our distribution charges, particularly for residential customers, are the lowest among the major utilities in Kentucky and our pass-through gas costs are also among the lowest in the state.

Q. PLEASE DESCRIBE THE MAKEUP OF ATMOS ENERGY'S CURRENT CUSTOMER BASE IN KENTUCKY.

A. Atmos Energy currently serves approximately 179,900 customers throughout its service area extending from western to central Kentucky. Residential class customers account for the vast majority of meters, at approximately 159,800. Atmos Energy's natural gas deliveries totaled approximately 47.7 Bcf during the 12-month period ending March 2021.

The Company is somewhat unique in its level of throughput to industrial class customers, with industrial sales and transportation volumes accounting for approximately 66% of Atmos Energy's annual throughput in Kentucky during that 12-month period. The region served by Atmos Energy is economically dependent on the well-being of these industries, as is Atmos Energy through its requirements for operating margin under current rate designs.

Q. HAS THE COMPANY EXPERIENCED GROWTH IN KENTUCKY IN RECENT YEARS?

A. Yes, but only for residential and commercial sales, which have seen only modest growth.

V. <u>PRINCIPAL FACTORS FOR THIS RATE APPLICATION</u>

Q. WHY DID THE COMPANY FILE THIS CASE?

A. As the Commission is aware, the actual costs of the natural gas consumed by our customers are collected through a gas cost adjustment mechanism. The purpose of this case is to establish new distribution rates which exclude those pass-through gas costs and which allow the Company to recover its cost of service, including a fair and reasonable return on investment. For the past ten years the Company has filed annual PRP filings to recover investments in infrastructure replacement and this has allowed the Company to extend the period between base rate cases. The Company now seeks to recover its capital investment since its last rate case, as well as to amend its PRP tariff for inclusion of Aldyl-A pipe, as discussed more fully in the testimony of Mr. Austin.

Q. WHEN DID THE COMPANY'S CURRENT RATES BECOME EFFECTIVE?

A. The Company's current base distribution rates were established by the Commission in Case No. 2018-00281 and became effective on May 8, 2019.[1]

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[1] Case No. 2018-00281, *Electronic Application of Atmos Energy Corporation for an Adjustment of Rates* (Ky. PSC May 7, 2019).

Q. ARE THE DISTRIBUTION RATES CURRENTLY IN EFFECT PROVIDING SUFFICIENT REVENUES?

A. No. Although Atmos Energy continues to operate very efficiently and is proud to have the lowest distribution charges for residential customers of the major natural gas providers in Kentucky, our current rates are not sufficient to provide the opportunity to earn either the return on investment previously approved by the Commission or the return calculated as fair and reasonable based on most recent data as presented in this filing.

At current rates, the Company's calculated rate of return on rate base for the test year is only 4.93%. The decline in return is primarily due to capital investment that is not recovered through the Company's current rates and to the increased costs of doing business. Examples of capital investment that are not covered through the Company's current rates are capital investment related to system integrity, system improvements, structures, public improvements, information technology, growth, and equipment. An example of a system integrity investment would be a capital investment made to replace aging infrastructure. Examples of system improvements would be capital investment related to reinforcing our existing system either through updated odorizers and regulators to any type of capacity enhancement. Examples of public improvements would be capital investment related to the relocation of our existing system to accommodate a public project.

Q. WHAT RATE OF RETURN ON RATE BASE IS ATMOS ENERGY REQUESTING IN THIS RATE APPLICATION?

A. Atmos Energy is asking the Commission to approve new rate schedules that would increase revenues to provide an overall rate of return on rate base of 7.66% on the test year rate base of $596,130,007.

Q. WHAT IS THE AMOUNT OF THE RATE INCREASE THAT ATMOS ENERGY IS SEEKING IN THIS RATE APPLICATION?

A. Atmos Energy is seeking approval to increase its rates to recover approximately $16,389,804 in additional revenues. The difference between this amount and the amount cited in Mr. Christian's testimony and on Schedule A.1 of FR 16(8)(a) is due to the rounding differences inherent in striking rates. For an average residential customer, the total bill increase would be $4.99 per month.

Q. PURSUANT TO 807 KAR 5:001(16)(12)(e)(3), PLEASE EXPLAIN HOW THE COMPANY WORKS TO ACHIEVE IMPROVEMENTS IN ITS EFFICIENCY AND PRODUCTIVITY.

A. The Company continuously makes investments in customer-focused programs to improve service and to ensure reliability and safety. Since our most recent rate filing in 2018, Atmos Energy continues to make substantial investments in technology and process improvements to ensure that it provides the best and most efficient customer service possible. Examples of these improvements include:

- **Provided Account Center Access in Spanish**: There is now a button within the Account Center online self-service portal that allows customers to switch their language preference on the site to Spanish
- **One-Click Payment Option**: Facilitates an easier way to make payments. Customer need only click on the link in an email or text and they are taken directly to a page where the confirm the payment amount and submit their payment.
- **Mobile Wallet**: A unique bill delivery platform enabling customer to view and pay their bill without having to remember a username or password. The bill is stored on the customer's device via Apple Wallet or Google Pay and can be easily accessed. Notifications are also sent to customers regarding new bills, approaching due dates and as payments are received. Customers can also manage their Atmos Energy accounts using Mobile Wallet to view a current invoice, login to Account Center, enroll in Auto Pay, and more.
- **Customer Feedback tab**: The Company deployed this tab in Account Center. While logged into their account, the customer can immediately provide feedback for improvements to our website. This feedback is reviewed by Atmos Energy on a monthly basis and improvements to our website are made as a result.

- **Soft close post cards**: A process that supports new customers moving into a new premise. A postcard is sent to the address where a customer has moved out and no new tenant showing to have moved in yet. This automated process reminds a new customer to contact us to begin their service. This will avoid unintended disconnections for new customers who forget to register their service.
- **Technician Orders**: A new application to enable service technicians to generate a service order from the field, as needed, based on customer or operating need. Prior to implementation of the new application, service technicians were required to coordinate with Dispatch to create and send a new service order.

Q. HOW HAVE IMPROVEMENTS TO EFFICIENCY AND PRODUCTIVITY IMPACTED RESIDENTIAL CUSTOMER BILLS?

A. On average, residential bills have remained steady since 2007. The Company estimates that the average monthly residential bill for 2021 to be $52, which is well below the average residential bills in 2007, 2008 or 2009. The Company estimates that average residential bills will be at or lower than those a decade ago for the next few years. While the cost of gas is a large percentage of a residential bill, the Company has been extremely efficient in order to minimize the bill impact to customers. When compared to other utility bills, the value proposition for natural gas is excellent.

Q. PLEASE EXPLAIN WHETHER THE COMPANY INCORPORATED THE COMMISSION'S ORDERS IN CASE NOS. 2017-00349 AND 2018-00281 IN ITS RATEMAKING ADJUSTMENTS REFLECTED IN THIS FILING.

A. Yes, the Company did consider the Commission's decision in Case No. 2017-00349 and 2018-00281 in the preparation of this case. Company witness Mr. Joe Christian discusses the various adjustments made to align this filing with the Commission's findings and Orders in Case No. 2017-00349 and 2018-00291 in his testimony along with new adjustments. While reserving the right to propose alternative approaches in future proceedings, the Company has made those changes to simplify the regulatory review process in this Case.

VI. INTRODUCTION OF WITNESSES

Q. PLEASE IDENTIFY THE OTHER WITNESSES SPONSORING TESTIMONY IN THIS PROCEEDING?

A. In addition to my testimony, Atmos Energy will present the direct testimony and exhibits of seven other witnesses:

- Joe T. Christian, Director of Rates and Regulatory Affairs for Atmos Energy Corporation, is presenting testimony concerning the Operating and Maintenance (O&M) expense budgeting process used by the Company; the control and the monitoring of O&M variances by the Company; the forecasted test year budget for O&M, the Company's capital investments, depreciation expense, and taxes other than income taxes incurred directly by the Company's Kentucky operations as well as allocated to Kentucky from the Kentucky / Mid-States General Office and Shared Services Unit, the Company's Cash Working Capital study, the Company's capital structure and cost of debt. Mr. Christian is also responsible for the calculation of Company's revenue deficiency and rate base.

- Michelle Faulk, Director of Accounting Services & Financial Reporting for Atmos Energy Corporation, is filing testimony regarding the historic books and records of the Company and the integrity of the financial information in this case. She also provides testimony concerning the Company's Cost Allocation Manual (CAM), which describes the methodology for shared services cost allocations.
- Josh Densman, Director Strategic Planning & Analysis of Atmos Energy Corporation, is filing testimony regarding the methods used to forecast the Company's revenues and volumes as they relate to the base period and test period in this case as well as present the test period forecast of revenues and volumes.
- Ryan Austin, Vice President of Technical Services for the Kentucky/MidStates Division of Atmos Energy Corporation, is filing testimony regarding the

Company's capital investments in Kentucky related to system integrity, specifically, safety.

- Dylan D'Ascendis testifies regarding the Company's cost of capital and recommends a rate of return on equity that is appropriate to be used in setting rates for Atmos Energy in this proceeding.
- Paul Raab, of Paul H. Raab Economic Consulting, presents the Company's class cost of service study.
- Dane Watson, of the Alliance Consulting Group, presents the Company's depreciation study and corresponding depreciation rates.

VII. PROPOSED RATES, RATE STRUCTURES AND TARIFF CHANGES

Q. WHAT ARE THE PRIMARY RATE DESIGN OBJECTIVES AND TARIFF PROPOSALS OF ATMOS ENERGY IN THIS CASE?

A. As stated earlier in my testimony, Atmos Energy's primary objective is to be the safest provider of natural gas service. The Company is very proud of its tradition as a low-cost, efficient provider of natural gas service.

Atmos Energy's tariff and rate design proposals are as follows:

1. Maintain the general balance of fixed and variable elements in our distribution rates to reflect the underlying cost characteristics of our service.

2. The revision of the Rate Book Index on Sheet Nos. 1 and 2 to reflect the changes described below. There is no revenue impact associated with this change.
3. The removal of the word “experimental” from the Company’s PBR mechanism from Sheet Nos. 2 and 18.
4. The removal of parking service and references to parking service from the Company’s Tariff on Sheet Nos. 47, 48, 54, 55, and 60. This tariff modification would affect customers under Company’s Rate Schedules T-3 and T-4.
5. The replacement of the Natural Gas Weekly pricing index with the Gas Daily pricing index for imbalance pricing calculations on Sheets Nos. 48 and 55. This tariff modification would affect customers under Company’s Rate Schedules T-3 and T-4.
6. The following changes on Sheet No. 87 to the Priorities of Curtailment: (1) Combine all Commercial service under Rate G-1 into Priority Level 2; (2) Combine Industrial service under Rate G-1 and Rate T-4 Service to new Priority Level 3; (3) Combine service under Rate G-2 Service and Rate T-3 Service to new Priority Level 4; and (4) Make Flex Sales Transactions new Priority Level 5.

7. Create the ability to issue Operational Flow Orders to transportation customers and their marketers on Sheet Nos. 88A and 88B. This tariff modification would affect customers under Company's Rate Schedules T-3 and T-4 and would require actions by Customers to alleviate conditions that, in the sole judgment of Company, jeopardize the operational integrity of Company's system.
8. Modification of the Company's Pipeline Replacement Program (PRP) tariff to permit inclusion of Aldyl-A pipe on Sheet No. 38. This tariff modification would amend the PRP applicable under the Company's Rate Schedules G-1, G-2, T-3, and T-4.
9. Proposal of the Tax Act Adjustment Factor ("TAAF") on Sheet No. 42 to be utilized to implement the effects of future changes of the Federal and/or state income tax rates on the most recently approved base rates, which could be a collection from customers or a pass back to customers. The Tariff will be set at zero until the effective date of a Federal and/or state income tax rate change and approval by the Commission of a TAAF rate. This tariff modification would be applicable under the Company's Rate Schedules G-1, G-2, T-3 and T-4. Any future adjustments to the TAAF rate would require Kentucky Public Service Commission approval.

Q. HOW DID YOU DETERMINE THE MANNER IN WHICH THE REVENUE DEFICIENCY WOULD BE SPREAD TO CUSTOMER CLASSES AND TO FIXED AND VARIABLE BILLING COMPONENTS?

A. Company witness Raab sponsors a Class Cost of Service study which is required pursuant to the Minimum Filing Requirements in this Case. In his study, he determines that all classes contribute adequate amounts to the Company's cost of service with the lone exception being residential sales. While Mr. Raab's analysis is utilized as one point of reference, the Company believes that it is just and reasonable for each class (commercial, public authority, industrial sales and transportation), in addition to the residential class, to bear some portion of the requested increase.

With respect to the balance of the increase to be borne between the fixed or variable components, the Company has chosen to propose an increase in the fixed monthly charges and an increase in the variable components when compared to the currents rates.

Q. WHAT IS THE RESULTING EFFECT OF ATMOS ENERGY'S PROPOSED RATES COMPARED TO CURRENT RATES FOR THE AVERAGE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL CUSTOMERS RESPECTIVELY?

A. Using the test year volumes and gas costs as the basis for comparison, the annual impact of Atmos Energy's proposed rates is as follows. The average monthly charges for a residential customer under G-1 service increases $4.99, an 9.6% increase over current rates. Commercial and public authority class customers' average monthly charges increase $16.17, a 7.8% increase over current rates, and the industrial sales and transportation class average monthly charges increase $551.61, a 12.3% increase over current rates. The test year revenues at proposed rates are summarized earlier in the testimony of Company witness Josh Densman. Please refer to Exhibit BCT-1 (in a format comparable to Exhibit JCD-2) as well as Exhibit BCT-2 which provides the proposed monthly revenues (in a format comparable to Exhibit JCD-5).

Q. WHY IS THE COMPANY PROPOSING TO REMOVE THE WORD "EXPERIMENTAL" FROM ITS TARIFF DESCRIPTION OF ITS PBR MECHANISM.

A. The Commission had previously approved the removal of the designation "experimental" from the Company's PBR mechanism. It was an oversight that references to "experimental" still remain on Tariff Sheet Nos. 1 and 18. The Company proposes to remove these as a matter of tariff "housekeeping."

Q. WHY IS THE COMPANY SEEKING TO REMOVE THE REFERENCES TO PARKING SERVICES FROM ITS TARIFF?

A. More than a decade ago, it was common for upstream pipelines to offer shippers the ability to park long imbalances and allow them to take parked gas back in a future month, however most pipelines have removed or greatly reduced this service offering. Atmos Energy's Kentucky tariff has not kept up with current practices and our upstream pipelines do not currently offer us this service. Parking creates an opportunity for transportation customers and/or their marketers to attempt to engage in price arbitrage, which could negatively impact the Company's GCA customers. Parking utilizes storage space and deliverability that is reserved for and paid for by GCA customers; the Company does not intentionally reserve storage for the benefit of Transportation customers and/or their marketers. Additionally, Transportation accounts should not be encouraged to carry an unresolved imbalance. The Kentucky Tariff currently allows Parking of up to 10% of the Transportation customer's monthly usage, at a cost of 10 cents per dekatherm. Additionally, Parked volumes are deemed "first through the meter" delivered to the Transportation customer in the following month. Practically speaking, 10% of monthly usage represents approximately three days of gas supply. The change proposed is that Transportation accounts will be fully cashed out for any remaining positive imbalance for the month. The Company believes the Parking service references should simply be deleted from the Kentucky tariff and Transportation accounts should be required to fully resolve their remaining imbalances through the Cash Out mechanism.

Q. WHY IS THE COMPANY ASKING TO REPLACE THE REFERENCES TO "NATURAL GAS WEEKLY" WITH "GAS DAILY WEEKLY AVERAGE" IN THE CASH OUTS MECHANISM ON TARIFF SHEETS 48 AND 55?

A. The subscription price for Natural Gas Weekly has substantially increased, and the Publisher has warned of general copyright infringement concerns. The proposed change will allow the Company to cease subscribing to the Natural Gas Weekly publication for Kentucky. Instead of Natural Gas Weekly, the Company proposes to use the highest and lowest *Gas Daily* weekly average for the respective pipelines, based on the Platt's *Gas Daily*, daily midpoints, for any week beginning in the calendar month of flow. Transportation and fuel language and the overall operation of the Cash Out tariff and tiers will remain unchanged. The use of *Gas Daily* published prices in the Cash Outs calculation will not incrementally increase the Company's operating costs as Atmos Energy already subscribes to this publication and has rights to utilize the indices in our calculations.

Q. WHY IS THE COMPANY PROPOSING THE CHANGES IT HAS REQUESTED TO ITS PRIORITIES OF CURTAILMENT?

A. The existing Priorities of Curtailment require the Company to distinguish between certain customers based upon their usage in Mcf/Day. The Company believes that this would be a very difficult standard to apply in real time in the event that a situation existed which required the curtailment of customers. The proposed curtailment priorities operate strictly upon customer class. In the proposed priorities, two commercial customers paying rate G-1 would receive identical priorities of service, even if one was burning 100 Mcf/Day and the other was burning 49 Mcf/Day. In the event that curtailment was required, these customers would both be instructed to curtail pro-ratably. Under the current Priorities of Curtailment, the larger customer would be instructed to go to zero before the smaller customer was even affected. The proposed Priorities of Curtailment also make it clearer that all firm T-4 service is higher than interruptible T-3 service.

Q. WHY IS THE COMPANY PROPOSING NEW LANGUAGE REGARDING THE ABILITY TO ISSUE OPERATIONAL FLOW ORDERS?

A. Currently the Company relies on its Kentucky Curtailment tariff language to address critical balancing and supply concerns associated with Transportation accounts. In practice, it is rare that we are required to curtail (i.e., cut) the supply of a Transportation account. The more likely situation is the need to issue a balancing order, called an Operational Flow Order. An Operational Flow Order, or OFO, is a type of notice issued by the Company that requires transportation customers to balance their gas supply with their end-use customers' usage on a daily basis, within a specified tolerance band. Again, it removes an opportunity for transportation customers and/or their natural gas marketers to attempt to engage in price arbitrage. It helps ensure an appropriate amount of gas supply is entering the Company's distribution system during critical periods. The OFO may be issued more broadly on a system or region, or more narrowly on just a specific account. For Transportation accounts failing to comply with the Company's OFO, it also allows the Company to penalize those accounts at a level reflective of the actual cost of gas on that day and credit those dollars to the GCA.

Q. IS THE COMPANY ASKING FOR ADDITIONAL TARIFF LANGUAGE TO ADDRESS TRANSPORTATION ACCOUNTS THAT CARRY AN IMBALANCE OF 10% OR MORE ON A DAILY OR ACCUMULATIVE BASIS?

A. Yes, Atmos Energy is proposing language to clarify that the Company may issue Transportation Account-Specific OFOs directed at Transportation customers and/or their marketers and pool managers who demonstrate egregious disregard for Atmos Energy's balancing requirements. The Company needs a means to address Transportation accounts that develop a short or long imbalance of 10% or more, on a daily or accumulative basis, and remain nonresponsive to the Company's request for corrective action. If the Transportation account does not take immediate and adequate corrective action upon notification from Atmos Energy, an Account-Specific OFO may be issued. This Tariff language will encourage Transportation customers and marketers to responsibly balance their account in a timely manner throughout the month, and will discourage them from waiting until month end to resolve imbalances with a glut of gas or deep cuts, both of which can cause distribution system supply issues. If there is noncompliance, Atmos Energy may, at its sole discretion, apply the daily OFO penalty.

Q. PLEASE DISCUSS THE COMPANY'S PROPOSED TAX ACT ADJUSTMENT FACTOR TARIFF?

A. The TAAF is designed to account for and implement the effects of future Federal and/or Kentucky income tax changes, whether such changes reflect an increase or a decrease to the tax rate. The TAAF is the difference between the income tax expense included in the revenue requirement approved by the Commission in the Company's most recent base rate proceeding and the calculated income tax expense if the increase or decrease of the Federal and/or Kentucky income tax rate had been in effect during the test year after applying the gross conversion factor. This proposed tariff provides for a timely reflection in rates of the correct tax rate so that customers are not paying higher or lower bills than necessary to accurately recover these pass-through costs.

Q. IS THE COMPANY PROPOSING AN ANNUAL FORMULA RATE MECHANISM AS IT DID IN CASE NO. 2017-00349?

A. No. However, in light of the fact that the Company continues to invest in the safety and reliability of its system, as well this being the Company's third general rate case in five years in Kentucky, we would like for the Commission to continue to consider the potential benefits of an annual rate review mechanism similar to the one approved by the Tennessee Public Utility Commission that has successfully produced just and reasonable rates in an efficient manner that minimizes rate case costs to customers since its inception over five years ago.

Q. DO YOU BELIEVE A FORMULA RATE MECHANISM WOULD BE APPROPRIATE FOR THE COMPANY'S KENTUCKY OPERATIONS?

A. Yes. A process similar to the one utilized in Tennessee would provide for a regularly scheduled rate review that will cost less and adjust the rates each year in a more timely manner to actually achieve the result contemplated by the Commission's rate orders. The Company envisions an annual mechanism saving all parties time, money and resources, while simultaneously promoting increased transparency and interaction between the Commission, the Company and relevant stakeholders.

Q. IS THE COMPANY PROPOSING A DIFFERENT PERIOD TO WEATHER NORMALIZE REVENUES IN THIS CASE?

A. Yes. As approved in Case No. 2015-00343, the Company is proposing to use a more current period of time to weather normalize revenues.

Q. WHAT IS THE PERIOD THAT THE COMPANY IS PROPOSING TO USE TO WEATHER NORMALIZE REVENUES IN THIS CASE?

A. The Company is proposing to use the twenty year period ending March 2021, or stated another way, the period of April 2001 through March 2021.

Q. ARE YOU FAMILIAR WITH THE PROVISIONS IN THE COMMISSION'S ORDER IN CASE NO. 2018-00281 RELATED TO LOBBYING EXPENSES?

A. Yes, I am. I am aware that the Commission "has historically disallowed lobbying expenses from being included in base rates, including the exclusion of certain portions of employee's salaries that were determined to be lobbying-related, as well as the corresponding portion of the employee taxes and benefits." I am also aware that the Commission stated the following in response to the Attorney General's raising this issue at the hearing in Case No. 2018-00281:

> The Attorney General did not raise the lobbying issue until the formal hearing, and as such, the Commission finds that there is a lack of evidence in the record to grant the Attorney General's request to disallow Mr. Martin's salary in its entirety. At the formal hearing, Mr. Martin stated that he spends a minimal amount of time handling administrative issues related to lobbying. Nonetheless, the Commission will require Atmos to prospectively keep adequate records to

> delineate the time that Mr. Martin, or any Atmos employee, spends on lobbying efforts. The Commission puts Atmos on notice that these records need to be filed with its next base rate case, at which time a determination will be made if any adjustment to employee salaries, taxes, and benefits is needed to reflect lobbying related activities.

Q. DID ATMOS ENERGY TAKE ANY ACTION IN RESPONSE TO THIS GUIDANCE FROM THE COMMISSION?

A. Yes. Atmos Energy reviewed the definition of lobbying as defined in Ky. Rev. Stat. § 6.611(27), which states as follows:

> (a) "Lobby" means to promote, advocate, or oppose the passage, modification, defeat, or executive approval or veto of any legislation by direct communication with any member of the General Assembly, the Governor, the secretary of any cabinet listed in KRS 12.250, or any member of the staff of any of the officials listed in this paragraph.
>
> (b) "Lobbying" does not include:
>
> 1. Appearances before public meetings of the committees, subcommittees, task forces, and interim committees of the General Assembly;
> 2. News, editorial, and advertising statements published in newspapers, journals, or magazines, or broadcast over radio or television;
> 3. The gathering and furnishing of information and news by bona fide reporters, correspondents, or news bureaus to news media described in paragraph (b)2. of this subsection;
> 4. Publications primarily designed for, and distributed to, members of bona fide associations or charitable or fraternal nonprofit corporations;
> 5. Professional services in drafting bills or resolutions, preparing arguments on these bills or resolutions, or in advising clients and rendering opinions as to the construction and the effect of proposed or pending legislation, if the services are not otherwise connected with lobbying; or

> 6. The action of any person not engaged by an employer who has a direct interest in legislation, if the person, acting under Section 1 of the Kentucky Constitution, assembles together with other persons for their common good, petitions any official listed in this subsection for the redress of grievances, or other proper purposes.

Atmos Energy also considered the Commission's prohibition on the inclusion of "political advertising" in rates, which is defined in KAR 5:016 as advertising intended to influence "public opinion with respect to legislative, administrative, or electoral matters, or with respect to any controversial issue of public importance." After reviewing these definitions and the Commission's Orders related to this issue, Atmos Energy determined that any such services performed on behalf of Atmos Energy are performed by external contractors and are not performed by employees of Atmos Energy's Kentucky/Mid-States division. As indicated in the direct testimony of Company witness Joe Christian, 100% of all external lobbying activities are coded to account 4264 and excluded from recovery. Atmos Energy has included Schedule F-7 for a summary of these expenses, none of which are included for recovery in this rate case.

Q. WHAT WAS YOUR DETERMINATION AS TO WHETHER YOU OR OTHER ATMOS ENERGY EMPLOYEES IN THE KENTUCKY DIVISION ENGAGE IN LOBBYING ACTIVITIES?

A. We determined that neither I nor any other employees in the Kentucky/Mid-States division engage in lobbying activities. However, we identified three positions in the Kentucky/Mid-States division that interact as necessary on a very limited basis with our external lobbyists to provide them with information they need to perform their duties and that occasionally attend meetings that are related to the work performed by our external contractor lobbyists or the subject matters addressed by those external lobbyists. These three positions are Vice President of Rates and Regulatory Affairs, Vice President of Public Affairs, and Manager of Public Affairs. For example, as part of my duties, I occasionally discuss various regulatory or legislative matters with other Atmos Energy employees, Atmos Energy external contractors, other utility officials, or members of the public. These discussions are infrequent and generally incidental to the specific topics being discussed. Because they are generally not scheduled or formal discussions of legislative matters and are part of other topics, time for the discussion is not tracked and would be difficult to track given their informal, spur of the moment nature and intermingling with other topics and duties. Since formal time-tracking is impossible, instead I have examined my duties and determined that such activities never exceed an average of two hours per week (or 5%) of my time. To be clear, these activities I perform do not meet the definition of "lobbying." However, because the topics discussed could be considered to be related to lobbying activities in the broadest sense, I have designated 5% of my salary each month potentially related to lobbying activities to comply with the strictest application of the term, and that amount is excluded from recovery through rates. This assures that no part of my salary that could possibly be considered as lobbying expenses included in rates.

Q: DID THE VICE PRESIDENT OF PUBLIC AFFAIR AND MANAGER OF PUBLIC AFFAIRS PERFORM A SIMILAR ANALYSIS OF THEIR TIME?

A: Yes. After the 2018 rate case, a similar analysis was conducted of the duties of the Vice President of Public Affairs and Manager of Public Affairs. It was concluded that neither engage in lobbying, and that any duties they may have that are even remotely related to lobbying activities amount to less than 5% of their weekly time on average. Therefore, 5% of their salary is designated each month to be potentially related to lobbying activities to comply with the strictest application of the term, and that amount is excluded from recovery through rates. This assures that no part of their salaries that could possibly be considered as lobbying expenses included in rates.

VIII. CONCLUSION

Q. DO YOU BELIEVE THAT THE FORECASTED TEST PERIOD COST OF SERVICE COMPONENTS YOU HAVE PRESENTED REPRESENT THE MOST REASONABLE ESTIMATE OF COSTS FOR THE TEST PERIOD USED IN THIS PROCEEDING?

A. Yes. The cost of service forecast presented by the Company witnesses is the best projection of the Company's future cost of service and will allow the Company to provide service to customers in a safe and reliable manner. Expansion of the

Company's PRP program to include Aldyl-A will allow us to accelerate the pace of replacement of its highest risk infrastructure while still remaining the most economic option for energy delivery to the home.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF)
RATE APPLICATION OF) Case No. 2021-00214
ATMOS ENERGY CORPORATION)

CERTIFICATE AND AFFIDAVIT

The Affiant, Brannon C. Taylor, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared direct testimony of this affiant in Case No. 2021-00214, in the Matter of the Rate Application of Atmos Energy Corporation, and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared direct pre-filed testimony.

Brannon C. Taylor

STATE OF TENNESSEE
COUNTY OF DAVIDSON

SUBSCRIBED AND SWORN to before me by Brannon C. Taylor on this the 21st day of June, 2021.

MENDES A. GIVENS

Notary Public

My Commission Expires: My Commission Expires May 5, 2025

State of Tennessee

County of Davidson

VERIFICATION

I, Brannon Taylor, after being duly sworn, state that I am Vice President of Rates & Regulatory Affairs of Kentucky/Mid-States, a division of Atmos Energy Corporation and that I am authorized to submit this application on behalf of the Company and that the information and statements contained in the Application are true of my own knowledge except as to those matters stated on information and belief, and as to those matters I believe them to be true.

____
Brannon Taylor

SUBSCRIBED, ACKNOWLEDGED AND SWORN to before me by

Mendes A. Givens
Brandon C. Taylor on this the 21st day of June, 2021.

____
Notary Public

My Commission Expires
May 5, 2025

My Commission expires: ____________________

MENDES A. GIVENS

EXHIBIT BCT-1

ATMOS ENERGY CORPORATION - KENTUCKY
SUMMARY OF REVENUE AT PROPOSED RATES
TEST YEAR ENDING DEC, 31 2022

			Reference Period - Twelve Months Ending 03/31/2021					Forward-looking Adjustments To Test Year				
Line No.	Description	Block (Mcf)	Number of Bills, Units	Volumes As Metered	Contract Adj. Bills and Volumes	Weather Adj. Volumes (NOAA 2002-2021)	Total Volumes	Customer Growth Forecast	Conservation & Efficiency Adjustments	Total Test Year Volumes	Proposed Margin	Proposed Revenue
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(i)	(j)	(k)
1	Sales											
2	Firm Sales (G-1)	Customer Chrg	1,917,862					12,600			$24.40	$47,103,273
3		Customer Chrg	238,152		0			1,575			66.50	15,941,846
4		0 - 300		15,532,542	1,500	(142,281)	15,391,761	83,277	0	15,475,038	1.6300	25,224,312
5		301 - 15,000		1,169,208	(1,500)	(29,593)	1,138,115	4,108	0	1,142,223	1.1302	1,290,940
6		Over 15,000		0	0	0	0		0	0	0.9028	0
7	Interruptible Sales (G-2)	Customer Chrg	97		0						540.00	52,380
8		0 - 15,000		293,960	(77,163)		216,797			216,797	1.0050	217,881
9		Over 15,000		127,320	(77,852)		49,468			49,468	0.7753	38,352
10												
11	Transportation											
12	Customer Charges (T-4)	Customer Chrg	1,429		0						540.00	771,449
13	Customer Charges (T-3)	Customer Chrg	838		0						540.00	452,520
14	Customer Charges (SpK)	Customer Chrg	156		(5)						435.00	65,820
15	Transp. Adm. Fee	Customer Chrg	2,392		(5)						50.00	119,350
16	Parked Volumes [1]			1,181,697	0						0.10	118,170
17	EFM Charges										Various	135,825
18	Firm Transportation (T-4)	0 - 300		412,972	13		412,985			412,985	1.6800	693,816
19		301 - 15,000		5,164,000	85,162		5,249,162			5,249,162	1.1740	6,162,516
20		Over 15,000		1,508,842	203,626		1,712,468			1,712,468	0.9390	1,608,008
21	Economic Dev Rider (EDR)	301 - 15,000		0	0		0			0	0.8805	0
22		Over 15,000		29,508	(6,043)		23,465			23,465	0.7043	16,526
23	Interruptible Transportation (T-3)	0 - 15,000		4,927,573	10,407		4,937,980			4,937,980	1.0337	5,104,390
24		Over 15,000		3,349,722	56,095		3,405,818			3,405,818	0.7928	2,700,132
25	Total Special Contracts [2]			14,697,297	428,246		15,125,542			15,125,542	Various	2,516,787
26												
27	Total Tariff		2,158,534	47,212,943	622,491	(171,874)	47,663,560	101,560	0	47,750,946		110,334,293
28												
29	Other Revenues											234,286
30	Late Payment Fees											1,417,393
31	Total Gross Profit											111,985,973
32												
33	Gas Costs											77,870,753
34												
35	Total Revenue											$ 189,856,726
36												
37	[1] Parked Volumes not included in Total Deliveries.											$ 16,389,802
38	[2] Based on confidential information.											

EXHIBIT BCT-2

ATMOS ENERGY CORPORATION - KENTUCKY
BILL FREQUENCY WITH KNOWN & MEASURABLE ADJUSTMENTS
TEST YEAR ENDING DEC, 31 2022
PROPOSED RATES

Line No.	Class of Customers	Rate	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total Billing Units
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	RESIDENTIAL (Rate G-1)														
2	FIRM BILLS	$24.40	162,090	161,803	163,021	160,753	160,313	160,182	159,941	159,437	159,410	160,372	160,914	162,226	1,930,462
3	Sales: 1-300	1.6300	1,857,318	2,012,321	1,399,888	894,359	417,321	201,246	158,271	157,773	161,795	317,627	917,735	1,522,955	10,018,608
4	Sales: 301-15000	1.1302	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Sales: Over 15000	0.9028	0	0	0	0	0	0	0	0	0	0	0	0	0
6	CLASS TOTAL (Mcf/month)		1,857,318	2,012,321	1,399,888	894,359	417,321	201,246	158,271	157,773	161,795	317,627	917,735	1,522,955	10,018,608
7	Gas Charge per Mcf		$4.87	$4.49	$4.49	$4.49	$4.68	$4.68	$4.68	$4.69	$4.69	$4.69	$4.67	$4.67	
8	Gas Costs		$9,045,217	$9,030,639	$6,282,236	$4,013,590	$1,954,228	$942,396	$741,153	$739,225	$758,071	$1,488,202	$4,286,120	$7,112,697	$46,393,776
9															
10	FIRM COMMERCIAL (Rate G-1)														
11	FIRM BILLS	66.50	18,580	18,557	18,757	18,428	18,263	18,041	17,905	17,765	17,749	17,980	18,211	18,483	218,719
12	Sales: 1-300	1.6300	698,561	750,728	566,070	402,387	254,646	171,530	156,316	143,655	120,025	155,217	386,577	605,127	4,410,839
13	Sales: 301-15000	1.1302	107,392	113,312	72,279	43,432	11,216	12,022	10,303	21,661	46,610	70,095	62,275	72,079	642,678
14	Sales: Over 15000	0.9028	0	0	0	0	0	0	0	0	0	0	0	0	0
15	CLASS TOTAL (Mcf/month)		805,953	864,039	638,349	445,819	265,862	183,552	166,620	165,316	166,636	225,312	448,853	677,207	5,053,517
16	Gas Charge per Mcf		$4.87	$4.49	$4.49	$4.49	$4.68	$4.68	$4.68	$4.69	$4.69	$4.69	$4.67	$4.67	
17	Gas Costs		$3,925,025	$3,877,525	$2,864,700	$2,000,688	$1,244,979	$859,538	$780,246	$774,570	$780,752	$1,055,674	$2,096,288	$3,162,776	$23,422,762
18															
19	FIRM INDUSTRIAL (Rate G-1)														
20	FIRM BILLS	$66.50	223	226	216	207	219	214	219	216	218	222	212	215	2,607
21	Sales: 1-300	1.6300	42,513	44,952	40,595	28,438	18,852	8,968	9,790	8,169	11,744	12,846	19,888	37,041	283,794
22	Sales: 301-15000	1.1302	74,752	94,325	54,095	15,834	10,226	3,503	3,411	8,163	15,930	10,787	19,891	46,786	357,703
23	Sales: Over 15000	0.9028	0	0	0	0	0	0	0	0	0	0	0	0	0
24	CLASS TOTAL (Mcf/month)		117,265	139,277	94,690	44,272	29,077	12,470	13,201	16,332	27,674	23,633	39,779	83,828	641,497
25	Gas Charge per Mcf		$4.87	$4.49	$4.49	$4.49	$4.68	$4.68	$4.68	$4.69	$4.69	$4.69	$4.67	$4.67	
26	Gas Costs		$571,083	$625,029	$424,937	$198,678	$136,163	$58,395	$61,816	$76,520	$129,663	$110,729	$185,782	$391,503	$2,970,298
27															
28	FIRM PUBLIC AUTHORITY (Rate G-1)														
29	FIRM BILLS	$66.50	1,534	1,534	1,563	1,522	1,540	1,553	1,523	1,530	1,529	1,525	1,518	1,530	18,401
30	Sales: 1-300	1.6300	122,829	131,460	96,997	69,709	38,973	24,586	21,255	20,578	21,333	31,746	73,277	109,053	761,797
31	Sales: 301-15000	1.1302	31,609	35,282	23,562	9,953	4,251	1,855	1,343	2,123	1,673	3,274	7,915	19,002	141,842
32	Sales: Over 15000	0.9028	0	0	0	0	0	0	0	0	0	0	0	0	0
33	CLASS TOTAL (Mcf/month)		154,438	166,742	120,559	79,662	43,224	26,441	22,598	22,702	23,006	35,020	81,192	128,055	903,639
34	Gas Charge per Mcf		$4.87	$4.49	$4.49	$4.49	$4.68	$4.68	$4.68	$4.69	$4.69	$4.69	$4.67	$4.67	
35	Gas Costs		$752,119	$748,285	$541,031	$357,496	$202,411	$123,818	$105,823	$106,365	$107,790	$164,080	$379,193	$598,059	$4,186,470
36															
37	INTERRUPTIBLE COMMERCIAL (G-2)														
38	INT BILLS	540.00	2	4	2	4	5	2	2	2	2	3	3	3	34
39	Sales: 1-15000	1.0050	2,114	3,301	2,364	1,366	996	146	1	1	1	337	1,111	1,513	13,251
40	Sales: Over 15000	0.7753	0	0	0	0	0	0	0	0	0	0	0	0	1
41	CLASS TOTAL (Mcf/month)		2,114	3,301	2,364	1,366	996	146	1	1	1	337	1,111	1,513	13,252
42	Gas Charge per Mcf		$3.60	$3.22	$3.22	$3.22	$3.41	$3.41	$3.41	$3.42	$3.42	$3.42	$3.40	$3.40	
43	Gas Costs		$7,610	$10,622	$7,607	$4,397	$3,399	$499	$3	$2	$3	$1,152	$3,782	$5,152	$44,227
44															

EXHIBIT BCT-2

ATMOS ENERGY CORPORATION - KENTUCKY
BILL FREQUENCY WITH KNOWN & MEASURABLE ADJUSTMENTS
TEST YEAR ENDING DEC, 31 2022
PROPOSED RATES

Line No.	Class of Customers	Rate	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total Billing Units
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
45	INTERRUPTIBLE INDUSTRIAL (G-2)														
46	INT BILLS	540.00	5	5	5	6	6	6	5	5	5	5	5	5	63
47	Sales: 1-15000	1.0050	19,258	15,242	9,221	30,567	16,305	10,104	14,805	16,702	24,423	16,040	17,055	13,825	203,548
48	Sales: Over 15000	0.7753	0	0	0	16,188	0	0	0	0	33,279	0	0	0	49,469
49	CLASS TOTAL (Mcf/month)		19,258	15,242	9,221	46,756	16,305	10,104	14,805	16,702	57,703	16,040	17,055	13,825	253,016
50	Gas Charge per Mcf		$3.60	$3.22	$3.22	$3.22	$3.41	$3.41	$3.41	$3.42	$3.42	$3.42	$3.40	$3.40	
51	Gas Costs		$69,331	$49,047	$29,671	$150,451	$55,649	$34,485	$50,528	$57,046	$197,086	$54,783	$58,071	$47,072	$853,220
52															
53	TRANSPORTATION (T-4)														
54	TRANSPORTATION BILLS	540.00	119	119	119	120	119	119	119	119	119	119	119	119	1,429
55	Trans Admin Fee		5,900	5,900	5,900	5,950	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	$70,850
56	EFM Fee		6,750	6,750	6,750	6,825	6,750	6,750	6,750	6,750	6,750	6,750	6,750	6,750	$81,075
57	Parking Fee		0	6	36	30	11	6	1	0	1	1	0	0	$92
58	Firm Transport: 1-300	1.6800	35,863	36,000	36,000	36,300	33,938	34,224	32,981	32,222	32,041	33,052	34,414	35,950	412,985
59	Firm Transport: 301-15000	1.1740	563,013	599,375	587,607	487,844	326,094	334,303	354,218	343,932	358,032	381,992	439,067	473,684	5,249,162
60	Firm Transport: Over 1500	0.9390	191,692	238,603	184,398	160,305	110,240	79,556	101,649	101,324	104,674	144,723	146,786	148,519	1,712,468
61	CLASS TOTAL (Mcf/month)		790,569	873,978	808,005	684,449	470,271	448,083	488,848	477,478	494,747	559,767	620,267	658,152	7,374,615
62															
63	ECONOMIC DEV RIDER (EDR)														
64	Firm Transport: 1-300	1.2600	0	0	0	0	0	0	0	0	0	0	0	0	0
65	Firm Transport: 301-15000	0.8805	0	0	0	0	0	0	0	0	0	0	0	0	0
66	Firm Transport: Over 15000	0.7043	1,993	4,507	3,488	1,800	1,853	0	1,997	42	0	1,764	2,765	3,257	23,465
67	CLASS TOTAL (Mcf/month)		1,993	4,507	3,488	1,800	1,853	0	1,997	42	0	1,764	2,765	3,257	23,465
68															
69	TRANSPORTATION (T-3)														
70	TRANSPORTATION BILLS	540.00	70	69	69	70	70	70	70	70	70	70	70	70	838
71	Trans Admin Fee		3,450	3,400	3,400	3,450	3,450	3,450	3,450	3,450	3,450	3,450	3,450	3,450	$41,300
72	EFM Fee		3,900	3,825	3,825	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	$46,650
73	Parking Fee		415	428	430	215	72	165	71	99	64	71	228	315	$2,573
74	Interrupt Transport: 1-15000	1.0337	461,080	457,872	443,740	425,993	396,964	367,093	376,659	367,569	371,894	397,732	427,385	443,997	4,937,981
75	Interrupt Transport: Over 15000	0.7928	306,652	374,923	310,979	306,551	240,113	234,556	249,690	217,672	277,249	269,069	323,690	294,674	3,405,818
76	CLASS TOTAL (Mcf/month)		767,732	832,795	754,719	732,544	637,077	601,649	626,349	585,241	649,142	666,802	751,075	738,672	8,343,799
77															
78	SPECIAL CONTRACTS														
79	TRANSPORTATION BILLS	435.00	13	13	13	13	13	13	13	13	13	13	13	13	151
80	Trans Admin Fee		600	600	600	600	600	600	600	600	600	600	600	600	$7,200
81	EFM Fee		675	675	675	675	675	675	675	675	675	675	675	675	$8,100
82	Parking Fee		10,788	7,781	8,972	11,992	7,869	7,467	10,589	5,875	9,801	6,875	11,242	16,253	$115,505
83	Transported Volumes	Various	1,499,644	1,573,203	1,368,534	1,305,767	1,050,189	943,578	1,108,964	1,219,010	1,335,049	1,143,650	1,252,412	1,325,543	15,125,542
84	Charges for Transport Volumes		260,105	273,244	230,796	206,922	173,139	144,370	174,424	199,397	230,472	192,263	207,329	224,325	$2,516,787
85	CLASS TOTAL (Mcf/month)		1,499,644	1,573,203	1,368,534	1,305,767	1,050,189	943,578	1,108,964	1,219,010	1,335,049	1,143,650	1,252,412	1,325,543	15,125,542
86															
87	OTHER REVENUE														
88	Service Charges		$13,265	$12,790	$11,209	$25,716	$22,720	$22,154	$24,641	$21,821	$25,606	$21,842	$14,779	$17,743	$234,286
89	Late Payment Fees		$177,694	$205,246	$205,502	$159,193	$119,525	$84,624	$67,708	$64,187	$63,898	$64,610	$78,654	$126,552	$1,417,393
90															
91	**TOTAL GROSS PROFIT**		$12,223,287	$12,777,998	$11,173,087	$9,667,207	$8,082,556	$7,399,953	$7,369,820	$7,308,411	$7,461,410	$7,864,291	$9,507,174	$11,150,777	$111,985,970
92	Gas Costs		$14,370,386	$14,341,146	$10,150,182	$6,725,300	$3,596,828	$2,019,132	$1,739,569	$1,753,729	$1,973,365	$2,874,621	$7,009,235	$11,317,260	$77,870,753
93	**TOTAL REVENUE**		$26,593,673	$27,119,145	$21,323,269	$16,392,507	$11,679,384	$9,419,085	$9,109,389	$9,062,140	$9,434,775	$10,738,912	$16,516,409	$22,468,036	$189,856,724

BEFORE THE PUBLIC SERVICE COMMISSION

COMMONWEALTH OF KENTUCKY

APPLICATION OF ATMOS ENERGY	**)**	
	)	
CORPORATION FOR AN ADJUSTMENT	**)**	**Case No. 2021-00214**
	)	
OF RATES AND TARIFF MODIFICATIONS	**)**	

TESTIMONY OF JOE T. CHRISTIAN

INDEX TO THE DIRECT TESTIMONY
OF JOE T. CHRISTIAN, WITNESS FOR
ATMOS ENERGY CORPORATION

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Joe T. Christian. My business address is 5420 LBJ Freeway, 1600 Lincoln Centre, Dallas, TX 75240.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by Atmos Energy Corporation ("Atmos Energy" or "the Company") as Director of Rates & Regulatory Affairs (Shared Services).

Q. WHAT ARE YOUR JOB RESPONSIBILITIES?

A. I am responsible for leading and directing the rates and regulatory activity in Atmos Energy's eight-state service area. This responsibility includes developing the strategy, preparing the revenue deficiency filings, and managing the overall ratemaking process for the Company. For the past nineteen years, I have managed Company-specific dockets and other commission proceedings in Colorado, Kansas, Kentucky, Louisiana, Mississippi, Tennessee, and Texas. I also managed Company-specific dockets in Georgia, Illinois, Iowa, and Missouri relating to regulated assets that the Company has since sold.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I graduated from East Texas State University in 1985 with a Bachelor of Business Administration Degree, majoring in Accounting. In 1987, I received a Masters of

Business Administration from East Texas State University. I am a Certified Public Accountant in the State of Texas and a member of the American Institute of Certified Public Accountants. I have made presentations before industry groups and the NARUC Staff Subcommittee on Accounting and Finance.

My professional experience includes approximately two years of public accounting experience with a large local accounting firm based in Dallas, Texas. In 1989, I accepted a position in the internal audit group with Atmos Energy. I was promoted to positions of increasing responsibility within the Atmos Energy finance team during my first nine years with the Company. I joined Atmos Energy's Colorado-Kansas operations as Vice President & Controller in June of 1998 and, effective December 1, 2001, was named Vice President of Rates & Regulatory Affairs. I assumed my current position on August 1, 2007.

Q. ARE YOU A MEMBER OF ANY PROFESSIONAL ORGANIZATIONS?

A. Yes. I am licensed by the State of Texas as a Certified Public Accountant ("CPA").

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION ("COMMISSION") OR OTHER REGULATORY ENTITIES?

A. Yes. I have testified in the Company's previous two rate proceedings[1] as well as supported the Company's position in the Commission's Investigation of the Tax Cut and Job's Act on the Rates of Investor Owned Utilities.[2] I have submitted testimony before the Kansas Corporation Commission ("KCC") in five general rate case proceedings[3] and provided oral comments to the KCC in a rules investigation.[4] I have also submitted testimony before the Mississippi Public Service Commission to amend our tariffs to add a supplemental growth rider,[5] to amend our formula rate tariff to establish a system integrity plan and establish a rural development pilot program,[6] and to request a system integrity rider and support our capital budget for 2015 through 2024.[7] I have also submitted testimony before the Louisiana Public Service Commission to amend our formula rate making tariffs to reduce lag related to system integrity investment as well as reaffirm our existing formula rate making tariffs.[8] Finally, I filed testimony before the Colorado Public Utilities Commission numerous times, including the Company's prior general rate case proceedings;[9] gas prudence reviews;[10] a Phase II class cost of service/rate design proceeding;[11] a

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[1] Case No. 2018-00281, Electronic Application of Atmos Energy Corporation for an Adjustment of Rates (Ky. PSC May 7, 2019) and Case No. 2017-00349, Electronic Application of Atmos Energy Corporation for an Adjustment of Rates and Tariff Modifications (Ky. PSC May 3, 2018).

[2] Case No. 2017-00481.

[3] Docket Nos. 03-ATMG-1036-RTS, 08-ATMG-280-RTS, 10-ATMG-495-RTS, 12-ATMG-564-RTS, 14-ATMG-320-RTS.

[4] Docket No. 02-GIMX-211-GIV, General Investigation of the Cold Weather Rule.

[5] Docket No. 2013-UN-023.

[6] Docket No. 2014-UN-117.

[7] Docket No. 2015-UN-049.

[8] Docket No. U-32987 (2014) and Docket No. U-35535 (2020).

[9] Proceeding Nos. 00S-668G, 09AL-507G, 13AL-0496G, 14AL-0300G, 15AL-0299G, 17AL-0429G.

[10] Proceeding Nos. 00P-296G and 03P-229G.

[11] Proceeding No. 02S-411G.

transportation terms & conditions proceeding;[12] an upstream gas transportation matter;[13] a complaint proceeding regarding upstream gas transportation;[14] an Advanced Metering Infrastructure surcharge matter;[15] a proposal to extend the pilot related to recovering uncollectible gas costs through the Gas Cost Adjustment ("GCA") mechanism;[16] the Company's proposal to put into effect a System Safety and Integrity Plan;[17] and the Company's application for a Certificate of Public Convenience and Necessity to implement the Greeley Building Project.[18]

I. PURPOSE OF TESTIMONY

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

A. I am responsible for supporting the calculation of the Company's revenue requirements in this case including the Company's proposed rate base, operating expenses, capital structure and embedded cost of debt to be utilized in establishing base rates for the future test period of calendar 2022. I am sponsoring the following Filing Requirements (FR):

FR 16(6)(a)	Forecasted financial data presented as pro forma adjustments to the base period;
FR 16(6)(b)	Forecasted adjustments limited to twelve (12) months immediately following the suspension period;

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[12] Proceeding No. 02S-442G.
[13] Proceeding No. 04A-275G.
[14] Proceeding No. 08F-033G.
[15] Proceeding No. 10AL-822G.
[16] Proceeding No. 12AL-1003G.
[17] Proceeding No. 12AL-1139G.
[18] Proceeding No. 13A-0153G.

FR 16(6)(c)	Capitalization and net investment rate base;
FR 16(6)(f)	Reconciliation of the rate base and capitalization;
FR 16(7)(b)	The utility's most recent capital construction budget containing at a minimum a three (3) year forecast of construction expenditures;
FR 16(7)(c)	Description of all factors used in preparation of the forecast test period - income statement, operation and maintenance expenses, employee and labor expenses, capital construction budget;
FR 16(7)(d)	Annual and monthly budget for the 12 month period preceding filing date, the base period and the forecast period;
FR 16(7)(f)	Detailed information for each major construction project constituting more than five percent (5%) of the annual construction budget within the three (3) year forecast;
FR 16(7)(g)	Detailed information for the aggregate of construction projects constituting less than five percent (5%) of the annual construction budget within the three (3) year forecast;
FR 16(7)(h)	(1) Operating Income Statement; (2) Balance Sheet; (3) Statement of Cash Flows; (4) Revenue Requirements; (9)

	Employee Level; (10) Labor cost changes; (11) Capital Structure Requirements; and (12) Rate Base;
FR 16(7)(i)	Most Recent FERC or FCC Audit Reports;
FR 16(7)(n)	Latest 12 months of the monthly managerial reports providing financial results of operations in comparison to forecast;
FR 16(7)(o)	Complete monthly budget variance reports, with narrative explanations, for the twelve (12) months immediately prior to the base period, each month of the base period, and any subsequent months, as they become available;
FR 16(7)(t)	List all commercial or in-house computer software, programs, and models used to develop schedules and work papers associated with this application;
FR 16(8)(a)	A jurisdictional financial summary for both the base period and the forecasted period that details how the utility derived the amount of the requested revenue increase;
FR 16(8)(b)	A jurisdictional rate base summary for both the base period and the forecasted period with supporting schedules, which include detailed analyses of each component of the rate base;

FR 16(8)(c)	Jurisdictional operating income summary for both base and forecasted periods with supporting schedules which provide breakdowns by major account group and individual account;
FR 16(8)(d)	Summary of jurisdictional adjustments to operating income;
FR 16(8)(e)	Jurisdictional federal and state income tax summaries;
FR 16(8)(f)	Summary schedules for the base and forecast periods of various expenses;
FR 16(8)(g)	Analysis of payroll costs;
FR 16(8)(h)	Computation of gross revenue conversion factor;
FR 16(8)(i)	Comparative income statements, revenue and sales statistics, base period, forecast period and two (2) years beyond;
FR 16(8)(j)	Cost of Capital summary
FR 16(8)(k)	Comparative financial data.FR 16(7)(c) Description of all factors used in preparation of the forecast test period - income statement, operation and maintenance expenses, employee and labor expenses, capital construction budget.

Q. WHAT ARE THE BASE PERIOD AND TEST PERIOD FOR THIS CASE?

A. The base period is October 1, 2020 through September 30, 2021 ("Base Period") and the forecasted test period is January 1, 2022 through December 31, 2022 ("Test Period")

Q. ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR TESTIMONY?

A. Yes, I am sponsoring Exhibits JTC-1 through JTC-4, which are attached to my testimony. Exhibit JTC-1 provides the composite factors used to allocate common costs for the purpose of the Test Period in this rate proceeding. Exhibit JTC-2 is a Base Period to Test Period O&M comparison by cost element. Exhibit JTC-3 are my proposed Depreciation Regulatory Reserve Credit rates. Exhibit JTC-4 is the Lead Lag Study utilized in the Company's revenue requirement.

Q. DO YOU ADOPT THESE FILING REQUIREMENTS AND EXHIBITS, AND THEIR ASSOCIATED SCHEDULES, AND MAKE THEM PART OF YOUR TESTIMONY?

A. Yes, I adopt the filing requirements, exhibits, and their associated schedules, and make them a part of my testimony.

Q. WHAT IS THE SOURCE OF THE DATA USED TO COMPLETE THE FILING REQUIREMENTS THAT YOU ARE SPONSORING?

A. The source of the data includes the accounting books and records of the Company which are being sponsored by Company witness Ms. Michelle Faulk along with information provided by the following witnesses to this proceeding: Mr. Josh Densman (revenues, gas cost and margin forecast; sales statistics); Mr. Dane Watson (depreciation rates); and Mr. Dylan D'Ascendis (rate of return on equity).

The detail concerning how this information was derived is found in the testimony of these witnesses. The data and information provided by these witnesses is the best available information and was developed consistent with sound ratemaking practices. Further, the methods that I used to determine the Company's revenue requirement in this Case are consistent with the Company's approach in prior cases before this Commission while recognizing and honoring the Commission's findings in the Final Order of Case No. 2017-00349 and Case No. 2018-00281[19]. I also support the calculation of cash working capital requirements in the attached lead-lag study. The Company filed and supported a cash working capital requirements in Atmos Energy's two most recent case and has followed the same methodologies which the Commission found more accurately reflects the working capital needs of the Company.[20]

II. REVENUE DEFICIENCY

Q. WHAT IS THE AMOUNT OF ATMOS ENERGY'S REVENUE DEFICIENCY?

A. The amount of revenue deficiency Atmos Energy seeks to recover in its proposed rates is $16,389,804 as shown on line 11 of Schedule A. This deficiency is based on the forecasted Test Period twelve months ended December 31, 2022, an average

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[19] Please see the Direct Testimonies of Mr. Taylor and Mr. Austin regarding the Company's projected capital expenditure levels in relation to these previous two orders.

[20] Final Order of Case No. 2017-00349, Pages 16-17 of the final order stated, "While the one eighth O&M methodology is a reasonable estimate of cash working capital absent a lead/lag study, Atmos's lead/lag study is part of the record of this proceeding and more accurately reflects the working capital needs of Atmos." Final Order of Case No. 2018-00281, Page 29 of the final order stated, "The Commission finds that the cash working capital allowance included in Atmos's rate base should be based upon the lead/lag study as filed, adjusted for expenses found reasonable herein".

rate base of $596,130,007 and a required rate of return on rate base of 7.66%. The amount is reduced by the annual amortization of the Company's excess deferred income tax liability ("EDITL") of $5,406,740 which has been updated to reflect new information regarding the Company's Unprotected EDITL items and discussed in in Section IX of my testimony. The amount also reduced by a return of the Depreciation Regulatory Liability of $9,862,441 and discussed in Section VIII of my testimony

Q. WHAT IS THE SOURCE OF FORECASTED TEST PERIOD ADJUSTED OPERATING INCOME OF $29,418,392 SHOWN ON SCHEDULE A, LINE 2?

A. The forecasted Test Period adjusted operating income is determined in Schedule C using inputs discussed in my testimony and the testimony of Company witnesses Josh Densman and Dane Watson.

III. RATE BASE

Q. HOW DID YOU DETERMINE THE LEVEL OF RATE BASE FOR THE TEST PERIOD?

A. The Test Period rate base of $ $596,130,007, is summarized in Schedule B-1 and detailed in Schedules B-2 through B-6. Each component of the Test Period rate base is a thirteen-month average forecasted amount, unless noted otherwise. The components of rate base are:[21] net plant in service, construction work in progress,

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[21] To comply with final order of Case No. 2018-00281, page 26, construction work in progress and associated ADIT items are not included in rate base.

cash working capital, regulatory assets and liabilities, and an allowance for other working capital items consisting of materials and supplies and gas stored underground, less customer advances for construction and deferred income taxes.

Q. HOW WAS THE TEST PERIOD GROSS PLANT IN SERVICE PROJECTED?

A. I began with actual per books gross plant as of March 31, 2021 including allocations of shared plant as discussed by Ms. Faulk in her testimony[22]. I used the capital spending projection for April - September 2021, the fiscal year 2022/2023 budget for the months in fiscal year 2022 (October 2021 through September 2022) and fiscal year 2023 (October 2022 through December 2022). The direct 2022/2023 budget is prepared at a project level and the shared services and division office are forecast at the same level as the base period. Projected plant retirements were based on the level of retirements recorded in the six months of actuals included in the Base Period (October 2020 through March 2021). Routine retirements in each forecasted month were projected to continue at the same level in the same month in future years.

Q. WHAT IS THE FORECASTED TEST PERIOD CAPITAL PROJECTION?

A. The forecasted Test Period capital investment projection is $56.39 million which is comprised of three components - the direct capital spending for Kentucky for the

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[22] Please see Exhibit JTC-1 Allocation Factors

forecasted test period, the amount allocated to Kentucky resulting from capital spending by the Kentucky/Mid-States Division's general office and the amount allocated to Kentucky resulting from capital spending by the SSU during the forecasted test period.

Q. WHAT KEY PRIORITIES ARE ADDRESSED THROUGH THE KENTUCKY DIRECT CAPITAL BUDGET?

A. Investments that focus on customer safety and system reliability are our highest priorities for capital budgeting. The next priority is public improvements and state and local public works projects such as highway relocations. The next priority is customer growth. Atmos Energy continues to build good working relationships with developers, economic development boards, and growing communities to meet the needs of the customer and to accommodate customer growth on its system. Next in order of priority, a modern fleet of vehicles and equipment (backhoes, safety equipment, ditchers, first responder equipment, air compressors, welding machines, etc.) allows us to maintain our system and continue to provide a reliable and efficient level of service to our customers. To enhance the level of customer service provided in the field, we also continue to make investments in new technology. Technology is a strategic investment that will enable us to continue improving our business processes, hold down operating costs, and meet the changing expectations of our customers.

Q. WHAT IS KENTUCKY'S FY2021, FY2022, AND FY2023 DIRECT CAPITAL BUDGET?

A. The direct budget for Kentucky for FY 2021 is $58.3 million, for FY 2022 is $63.2 million and for FY 2023 is $67.0 million.

Q. HOW DID YOU ADJUST KENTUCKY'S DIRECT CAPITAL BUDGETS IN ORDER TO PREPARE THE FORECASTED TEST PERIOD CAPITAL BUDGET?

A. For the months of the base period I used actual plant additions through March 2021 and the divisions latest reforecast of capital spending for FY2021, including PRP, for April 2021 – September 2021. For forecasted period from October 2022 – December 2022 and the Test Period (January 2022 – December 2022) I used the capital budget for FY 2022 and FY 2023, excluding PRP investment for the final quarter of the test period. I would note that since we are providing additional project level detail rather than applying a factor to the current year capital budget that the growth budget is anticipated to increase between FY 2022 and FY 2023.

Q. IS THE PIPE REPLACEMENT PROGRAM ("PRP") ESTABLISHED IN DOCKET NO. 2009-00354 COMPLETE?

A. No, it is not complete. While the Company's effort to replace bare steel pipe is not complete, it remains on track. Please see the testimony of Mr. Brannon Taylor and Mr. Ryan Austin for further discussion.

Q. IS THE PRP INCLUDED IN THE KENTUCKY DIRECT CAPITAL BUDGET?

A. Yes.

Q. DID YOU INCLUDE CUMULATIVE PRP INVESTMENT IN THE TEST YEAR RATE BASE AND REVENUE REQUIREMENT?

A. Yes, as required by the PRP tariff, the impact of the Company's PRP investment is included throughout the filing and reflected in the total revenue requirement of $179,994,286 proposed by the Company.

Q. HOW DO YOU PROPOSE TO HANDLE THE AUGUST 2021 AND AUGUST 2022 PRP FILINGS TO AVOID OVER-RECOVERY OF FISCAL YEAR 2022 AND FISCAL YEAR 2023 PRP INVESTMENT?

A. The Company's annual August PRP filing normally includes PRP investment that is forecasted to be spent between October 1 and September 30 following the August filing. The forecasted Test Period rate base in this case includes actual and forecasted PRP investment that the Company will make through September 30, 2022. The amount of PRP investment forecasted to be spent from October 1, 2021 to September 30, 2022 is $27.9 million, which is built into the rate base and revenue requirement of this proceeding. The PRP surcharge rates that result from our August 2021 PRP case will be set to zero once the rate schedule that results from this proceeding (Case No. 2021-00214) becomes effective. Because the rates resulting from this proceeding are based upon the Company's cumulative cost of service, including the $28.1 million of forecasted PRP investment from October 1, 2021 - September 30, 2022, the Company ensures that it earns a return on this PRP investment once and only once. Furthermore, by only including PRP investment through September 30, 2022 (three months short of the end of the test period in this proceeding) the Company can make its August 2022 PRP filing (which will include PRP investment forecasted for October 1, 2022 to September 30, 2023) as scheduled and not disrupt the annual timeline for PRP filings.

Q. WHY HAS THE COMPANY CHOSEN TO FILE THIS CASE IN THIS MANNER - WITH ALL CAPITAL INVESTMENT INCLUDED IN THE FORWARD LOOKING TEST YEAR?

A. The Company has chosen to file this comprehensive general rate case in the manner described above in order to preserve forward looking treatment on its capital investment and related operating expenses.

Q. WHAT IS THE SIGNIFICANCE OF FORWARD LOOKING TREATMENT IN RATEMAKING?

A. Forward looking treatment, as generally described in the context of rate of return regulation, entails forecasting cost of service components and implementing rates such that the timing of the Company's revenues collected from customers aligns with the timing of its cost of service. In allowing such treatment, regulators ensure that the rates customers are paying reflect the utility's cost of service and the value of investment provided during the same time period.

Q. DOES EXISTING KENTUCKY STATUTE ALLOW FORWARD LOOKING TREATMENT?

A. Yes. KRS 278.192 allows for forward looking treatment in rate proceedings for the utilities regulated by the Commission. Atmos Energy's Kentucky rates have been set on a forward looking basis going back many years (at least since 1999) and were set on a forward looking basis in the Company's most recent rate case, Case No. 2018-00281. As a result, the Company has chosen to file this case by exercising its option under the statute.

Q. DID THE COMPANY CONSIDER THE PROVISIONS OF KRS 278.192 WHEN PROPOSING THE PRP IN 2009?

A. Yes. Given that Kentucky statute allows the Commission to utilize forward looking treatment, which it has applied without exception for many years to the Company's Kentucky rates, the Company proposed a pipe replacement mechanism that maintained forward looking treatment and made it a cornerstone of its proposal. The Company viewed that proposal as consistent with the statute.

Q. WHAT WOULD BE THE DISADVANTAGE OF ELIMINATING FORWARD LOOKING TREATMENT ON THE COMPANY'S INVESTMENT?

A. Eliminating forward looking treatment would result in a regulatory construct that systematically prevents the Company from having an opportunity to earn its authorized return on equity ("ROE").

Q. WHAT CAUSES A FILING BASED ON HISTORIC COST OF SERVICE TO SYSTEMATICALLY PRODUCE REVENUES LOWER THAN THOSE REQUIRED TO ALLOW A UTILITY TO EARN ITS AUTHORIZED RETURN ON EQUITY?

A. Regulatory lag. If a Company must invest capital, experience depreciation on its investment, and support a given level of operating expenses in one time period but wait until a future time period to recover those costs, it cannot mathematically cover its total cost of service (including return) in a timely fashion. This is the definition of regulatory lag and it is especially harmful when a utility is in an era of increasing capital investment requirements (as is the case for virtually every public gas utility in America today). Atmos Energy's test period capital investment plan for Kentucky calls for investment that is three times its forecasted level of depreciation. The additional depreciation expense alone forecasted in this case for the forward looking test year given that level of investment is $1.3 million. At that rate, regulatory lag would systematically cause the Company to fail to earn its authorized return, should rates be set on a time period that does not include forward looking treatment.

Q. HOW WAS THE KENTUCKY/MID-STATES GENERAL OFFICE CAPITAL BUDGET DEVELOPED?

A. The capital budget for the Kentucky/Mid-States Division general office was developed in conjunction with Kentucky's capital budget as well as the capital budgets for all other rate divisions within the Division as part of the Division's total capital budget. The Division general office budget for the forecasted Test Period is $22,810, $11,501 of which is allocated to Kentucky for ratemaking purposes.

Q. WHAT IS THE SHARED SERVICES FORECASTED TEST PERIOD CAPITAL INVESTMENT PROJECTION FOR THIS PROCEEDING?

A. The Shared Services projection for the forecasted Test Period is $45.57 million, $2.38 million of which is allocated to Kentucky for ratemaking purposes.

Q. HOW WAS THE TEST PERIOD ACCUMULATED DEPRECIATION PROJECTED?

A. I began with actual per books accumulated depreciation as of March 2021 including allocations as discussed by Ms. Faulk in her testimony[23]. For the months of April 2021 through the end of the test year (December 2022), I added projected

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[23] Please see Exhibit JTC-1 Allocation Factors

depreciation expenses (described later in my testimony) and deducted the same retirements that were projected for gross plant.

Q. DID YOU INCLUDE CONSTRUCTION WORK IN PROGRESS ("CWIP") IN THE RATE BASE?

A. No. The Commission disagreed with inclusion of CWIP in the Final Order in Case No. 2018-00281[24] therefore the Company has excluded $8.1 million direct CWIP as well as allocated CWIP from rate base.

Q. HOW DID YOU DETERMINE THE AMOUNT OF TEST PERIOD CASH WORKING CAPITAL ALLOWANCE TO INCLUDE IN RATE BASE?

A. Recognizing the Commission's findings and Final Order in Case No. 2017-00349 and 2018-00281, the Company prepared a lead-lag study to calculate its Cash Working Capital requirement. The lead-lag study is discussed in Section XI of my testimony.

Q. HOW WAS THE TEST PERIOD AMOUNT OF MATERIAL AND SUPPLIES DETERMINED?

A. I calculated the 13 month average amount of materials and supplies in the forecasted Test Period using average actual balances recorded in the six months of actuals included in the Base Period (October 2020 - March 2021). The Company does not anticipate a significant change in the amount of materials and supplies in

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[24] Final Order of Case No. 2018-00281, Page 26.

the test year. The calculation method maintains the historic level of materials and supplies while smoothing out any historic month to month fluctuations.

Q. **HOW WAS THE AMOUNT OF GAS IN STORAGE DETERMINED?**

A. The projected amount of gas in storage is discussed in Mr. Josh Densman's testimony.

Q. **HOW DID YOU PROJECT THE AMOUNT OF TEST PERIOD CUSTOMER ADVANCES FOR CONSTRUCTION?**

A. I calculated the amount of customer advances in the forecasted Test Period based on the average of actual amounts booked in the base period from October 2020 to March 2021. The Company does not anticipate a significant change in the amount of customer advances in the test year. The calculation method maintains the historic level of customer advances while smoothing out any historic month to month fluctuations.

Q. **DID YOU PROPOSE ANY ADJUSTMENTS FOR ANY REGULATORY ASSETS AND LIABILITIES?**

A. Yes. I included the 13 month average of the projected unamortized balance of two regulatory assets and one regulatory liability. I have included a regulatory asset for the unamortized balance of the rate case expenses deferred by the Company in Case No. 2018-00281 per the Final Order. I am also proposing a regulatory asset for the unamortized balance of projected rate case expenses that the Company projects to incur in the context of this proceeding. The Company projects rate case expenses totaling $399,097. I am proposing a three year amortization of these costs in recognition of the Commission's findings and Final Order in Case No. 2017-00349. The amortization expense is included in O&M and the details concerning the regulatory assets are documented on Schedule F.6 in FR 16(8)(f). I also included the 13 month average of the projected unamortized balance of the excess deferred income tax liability discussed in Section IX of my testimony.

Q. DID YOU PROPOSE ANY RATE BASE ADJUSTMENT FOR A DEPRECIATION REGULATORY LIABILITY RELATED TO DEPRECIATION[25]?

A. No, I have not proposed any reduction to rate base because when discussing the issue of depreciation rates to adopt in Case No. 2018-00281, the Commission indicated that the regulatory liability should be established without carrying charges and stated, "This gradual approach will ensure that Atmos's customers receive the full benefit of the reasonable depreciation methodology, while limiting the impact of the change on Atmos."[26] Reducing rate base would effectively be imposing a carrying charge therefore rate base has not been reduced I discuss the amortization aspect of the Depreciation Regulatory Liability in Section VIII of my testimony.

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[25] Final Order of Case No. 2018-00281, Page 59, Ordering Paragraph No. 5 which states, "Atmos shall establish a regulatory liability in the amount of $3,676,784 for the remainder of the reduction in depreciation expense, the amortization of which will be addressed in Atmos's next base rate case."

[26] Final Order of Case No. 2018-00291, Page 18, first paragraph.

Q. DOES THE COMPANY'S RATE FILING REFLECT A PROJECTION OF ACCUMULATED DEFERRED INCOME TAX ("ADIT")?

A. Yes. ADIT balances are projected in a manner consistent with the Final Order in Case No. 2018-00281. The projection excludes ADIT items consistent with the Final Order in Case No. 2018-00281.In addition, CWIP and ADIT items and SEBP ADIT items are excluded from rate base to align with their removal from the case.

Q. DID YOU PREPARE A RECONCILIATION OF TEST PERIOD RATE BASE AND CAPITALIZATION?

A. Yes. To comply with section 16(6)(f) of 807 KAR 5:001, I prepared the reconciliation in Schedule FR 16(6)(f). It shows the differences between the Test Period average rate base and Test Period end capital that result from using 13-month averages in rate base, certain balance sheet items not being included in rate base as well as amounts included in rate base for particular categories that differ from the amount included on the balance sheet.

IV. O&M BUDGETING PROCESS

Q. WHAT ARE THE OBJECTIVES OF THE COMPANY'S O&M BUDGETING PROCESS?

A. The objectives of the Company's O&M budgeting process are to: (1) formalize the process of identifying the anticipated costs of operating and maintaining Atmos Energy's systems each year; (2) ensure that all policies and procedures associated with the annual budgeting process are consistently adhered to by the functional managers and officers; (3) assess the appropriateness of routine maintenance requirements and non-capital expenditures proposed by the functional managers and officers to ensure that the amounts are adequate to deliver safe, reliable and efficient natural gas service to the Company's customers; and (4) ensure that the O&M budget properly reflects our strategic operational and financial plans. These objectives are applicable to the Company as a whole as well as to its various division, state and local level operations.

Q. CAN YOU DESCRIBE THE COMPANY'S O&M BUDGETING PROCESS?

A. Yes. O&M costs are budgeted on a fiscal year basis, which begins on October 1 of each year (consistent with the seasonal operations of our business) and runs through September 30 of the following year. Preparation of operating and construction budgets for a fiscal year formally begins in late May of each year and culminates with completion of final budgets in late August, just prior to the beginning of the fiscal year. Budget preparation is based on meeting the four objectives described above. Budgets are approved at multiple levels beginning with supervisors/managers up through division leadership. Additional reviews are performed by corporate executive operations management and their staff. High level reviews of the division budgets are also performed by the Company's senior executives who are presiding members of the Company's Management Committee. The Board of Directors must review and approve the total Company budget before finalization and implementation. This approval typically occurs in September of each year.

Q. WHAT ROLE DOES THE O&M BUDGETING PROCESS PLAY IN THE COMPANY'S FINANCIAL PLANNING?

A. Atmos Energy's Business Planning and Analysis Department is responsible for financial planning at the enterprise level. That department receives direction from the Board of Directors concerning forward-looking financial objectives for the Company. Business Planning and Analysis is responsible, with significant input and collaboration from division leadership, for translating those enterprise targets into a financial plan for each division and rate jurisdiction. It is the collaboration between Business Planning and Analysis and division leadership that ensures that all four of the objectives described above are met each year. Spending targets are established as a result of this collaboration.

Q. SO FAR YOU HAVE DESCRIBED THE O&M BUDGETING PROCESS. CAN YOU EXPLAIN HOW THE BUDGET IS PREPARED WITHIN THE PARAMETERS OF THIS PROCESS?

A. Yes. The O&M budget is prepared by type of cost element, such as labor, benefits, transportation, rents, office supplies, etc. Within each cost element we budget expenses at the sub-account level. The prior year's actual costs, year-to-date actual costs and budgeted costs for the remainder of the fiscal year are used as guidelines for budgeting by functional managers and officers. The budgets are prepared using a web-based software tool called PlanIt. This tool allows cost center owners to enter their budgets and for management to review budgets using a number of standard and ad hoc reports.

Q. ARE THESE BUDGETS PREPARED BY FERC ACCOUNT?

A. No. In our experience, FERC accounts do not provide a sufficient level of detail to enable us to understand the costs within each account. For budgeting purposes (and subsequent managing of expenses), we need more individualized expense types that relate to the operation of each cost center. FERC accounts do not provide that level of detail. However, we do identify our expenditures by FERC account as well as expense type. This provides a timely analysis of the type of charges being expensed by FERC account.

Q. HOW DOES ATMOS ENERGY CONVERT ITS O&M BUDGET BY COST ELEMENT INTO FERC ACCOUNTS?

A. To convert our budget and forecast to FERC accounts, prior year actual expenditures are downloaded from the general ledger by FERC account and cost element. A calculation is then made to determine within each cost element type the percentage of spending attributable to each FERC account. Each percentage factor was then applied to the fiscal year 2021 budget and test period forecast by cost type to develop a budget and Test Period forecast by FERC account.

V. CONTROL AND MONITORING PROCESSES

Q. DOES THE COMPANY EMPLOY ANY METHODOLOGY TO MONITOR AND CONTROL O&M ACCORDING TO BUDGETED LEVELS?

A. Yes. Atmos Energy utilizes variance monitoring to ensure financial quality control of O&M expenses by formalizing the analysis of variances by cost type and cost center. On a quarterly basis, the Company's Management Committee hosts a meeting with Company Utility Operations, SSU department heads, select Board of Directors members and external auditors at a formal Quarterly Performance Review. Financial and operating results are reviewed for the latest quarter and year-to-date. The goal is to keep all levels of management informed of O&M spending in comparison to budgeted amounts, in order to allow management to react to unanticipated events on a timely basis.

Q. ARE O&M VARIANCES EVALUATED MORE FREQUENTLY THAN ON A QUARTERLY BASIS?

A. Yes. The Kentucky Mid-States Division Finance Department conducts a thorough review of O&M actual to budget variances each month.

Q. PLEASE DESCRIBE THE MONTHLY VARIANCE REVIEW PROCESS.

A. The process begins by examining, at the Division level, significant variances by cost type (labor, benefits, materials, rents, etc.). Significant variances are researched until an explanation is found. Reasonable explanations could include events that affected the entire Division or a particular cost center or region. In some cases, clarifying information is sought from cost center owners to explain unusual variances or transactions. For some cost types, clarifying analysis is provided by SSU departments. If errors are found, they are most often corrected in the current month’s business. Occasionally, however, errors are discovered after the books are closed, and, depending on materiality, they are corrected in the following month’s business.

Q. DOES ANYONE ELSE WITHIN THE DIVISION HAVE THE ABILITY TO MONITOR OR REVIEW O&M VARIANCES?

A. In addition to the research conducted by the Division Finance Department, each cost center owner has the ability to run variance reports throughout the monthly closing process. Because cost center owners are held accountable for significant variances to budget, they conduct their own research and often contact the Division Finance Department when they find errors or have questions about the expenses that were charged to their cost centers.

Q. WHAT CONTROLS AND REPORTING ARE INVOLVED IN THE MONTHLY CLOSE PROCESS REGARDING O&M VARIANCES?

A. Once the monthly books are closed, the SSU Financial Reporting department in Dallas publishes (electronically) the monthly Atmos Energy Financial Package. This package details the financial performance for Atmos Energy at the corporate and division level. For each division, the report includes a comparative income statement, operating statistics (volumes, total spending), and other financial details. At the end of each quarter, narrative comments are provided by Division officers to describe quarterly and YTD variances. Once complete, this Financial Package is available to all Atmos Energy officers and Board members for review and is an official Sarbanes-Oxley control document of the Company. On a quarterly basis, once the package is complete, an online questionnaire generated by our Sarbanes-Oxley Compliance Tool is completed certifying that the Division Finance Department has conducted a thorough review of the Division's financial performance and the Financial Package and all matters addressed therein. The Company's external auditors look for this certification as evidence of Sarbanes-Oxley compliance.

After meeting the Financial Package control requirement, the Division Finance Department publishes (electronically) detailed O&M reports that include monthly and YTD variances for each cost center and these reports are then made available to each cost center owner and their respective managers (managers, Division Vice Presidents, and the Division President). This activity ensures that each cost center owner receives the same information in the same format each month in a timely fashion in order to make operational decisions and manage our operations effectively and efficiently.

Q. HAS THE O&M VARIANCE MONITORING AND CONTROL PROCESS YOU HAVE DESCRIBED ENABLED KENTUCKY TO OPERATE REASONABLY WITHIN ITS BUDGET EACH YEAR?

A. Yes. While the table below indicates some overage in 2018 and 2019, overall, the Company's actual O&M expenditures over the past eight years in Kentucky have tracked closely to overall budgeted amounts or shows that conscious mid-year decisions were made to vary from budget rather than reduce important ongoing O&M.

Fiscal Year	Actual $	Budget $	Over/(Under) $	Variance %
2020	$29,553	$29,830	($277)	-0.93%
2019	$31,589	$29,287	$2,302	7.86%
2018	$29,222	$27,463	$1,758	6.40%
2017	$27,511	$27,657	($146)	-0.53%
2016	$27,496	$26,191	$1,305	5.00%
2015	$27,922	$26,762	$1,160	4.30%
2014	$26,515	$26,804	($289)	-1.10%
2013	$25,509	24,913	$596	2.40%

Q. DO YOU HAVE AN OPINION REGARDING THE SIGNIFICANCE OF THE HISTORICAL DATA REFLECTED IN THE TABLE ABOVE?

A. Yes. I examined what drove the variances in 2018 and 2019 and am satisfied that in conjunction with overall corporate results, O&M objectives continued to be met. Said another way, the Division communicated unplanned O&M needs and senior management concurred to adjust planned O&M spending rather than make cuts to meet that year's direct O&M budget. As can be seen in the FY 2020 result, despite

COVID and the uncertainty regarding the pandemic the O&M budget was within 1%.

Q. WHY IS THAT IMPORTANT?

A. This data demonstrates that the Company's budgeting and control processes I have described form a reasonable basis for purposes of the Company's forecasted Test Period O&M budget in this rate proceeding.

Q. WHAT ARE THE GOALS OF THE COMPANY'S PROCESS OF CONTROLLING AND MONITORING CAPITAL EXPENDITURE VARIANCES?

A. Variances from budgeted amounts are inherent in the process of making capital expenditures. Our variance monitoring process exists to institute financial quality control by formalizing the analysis of variances by budget category and responsibility center in a process that identifies year-to-date spending variances. The goal is to keep all levels of management informed of spending by category and responsibility center relative to budgeted levels and to ensure that corrective action is initiated on a timely basis. This supports decision-making related to the cost and appropriate management of current and future capital projects.

Q. PLEASE DESCRIBE THE COMPANY'S PROCESS FOR CONTROLLING AND MONITORING CAPITAL EXPENDITURE VARIANCES.

A. The Company's process for controlling and monitoring capital expenditure variances is utilized by each operating division as well as by Shared Services. At the division level the Company's capital budgeting system maintains projects in two broad categories - Blanket Functionals and Specific Projects. The Blanket Functionals include total capital authorizations of a similar type such as new services, leak repair, short main replacements, small integrity/reliability projects, etc. Specific projects are uniquely identified such as a specific highway relocation project, replacement of work equipment, or some larger significant integrity/reliability project.

Once a project has been entered in the capital budget system a request for authorization is submitted. If during the course of a project, field management identifies that the costs of the project will exceed approved amounts, a request for supplemental funding may be submitted. All expenditures above authorized appropriation, as well as expenditures for unbudgeted projects or variances on budgeted and approved projects, must be approved at the appropriate levels within the Company.

In FY2015 the Company began utilizing a monthly capital forecast module through its accounting system PowerPlan. The forecast module is updated throughout the month by Project Specialists, Operation Supervisors and Operation Managers as known and measurable changes occur. At the end of each month, the forecast for that specific month is updated with actuals and closed to future charges as part of the monthly closing process. Once current month actuals have posted, the Project Specialists, Operations Supervisors and Operations Managers are given two to three days to make final updates to their respective projects. Once complete, the forecasts are reviewed by the Operations Supervisors, Operations Managers and the VP Operations. A final review of the forecast is performed by the division Finance Department. The VP of Finance communicates to the corporate Plant Accounting Department that the forecast is approved. A snapshot of the forecast is then taken by Plant Accounting for archiving. Upon completion of the snapshot the forecast module is reopened for changes as they become known and measurable during the course of the new month.

VI. FORECASTED TEST PERIOD O&M BUDGET

Q. WHAT IS THE FORECASTED TEST PERIOD USED IN THIS RATE APPLICATION?

A. The forecasted Test Period is January 1, 2022 through December 31, 2022.

Q. HOW WAS THE FORECASTED TEST PERIOD BUDGET DEVELOPED?

A. The basis for the forecasted Test Period is the first six months of our base period (October 2020 – March 2021) and last six months of our FY2021 budget. Consistent with our normal annual budgeting timelines, this budget was prepared during the summer of 2020 and approved by the Board of Directors in September of 2020. This budget was prepared in the manner I described earlier. The forecasted Test Period includes the last nine months of FY2022 and the first three months of FY2023. I will describe the methodology used for the projection period in detail below. The base period and FY2021 O&M budget and forecasted Test Period projection were converted into FERC account detail using the method described above.

Q. WHAT ARE THE COMPONENTS OF O&M FOR THE FORECASTED TEST PERIOD?

A. The forecasted Test Period O&M is comprised of three parts: expenses incurred and booked directly in Kentucky (rate division 009), allocated expenses from the Division General Office (rate division 091), and allocated expenses from SSU (comprised of rate divisions 002 and 012). I will describe the methodology used for the projection for each of the three components.

Q. WHAT COMPRISES THE BASE PERIOD LEVEL OF COST FILED IN THIS RATE APPLICATION?

A. The Base Period level of cost is October 1, 2020 through September 30, 2021. It is composed of six months of actual results through March 2021 and six months of our FY2021 budget.

Q. WHAT IS THE DIRECT O&M FOR THE BASE PERIOD?

A. $16,133,469.

Q. WHAT IS THE DIRECT O&M BUDGET FOR THE FORECASTED TEST PERIOD?

A. $15,662,747.

Q. WHAT IS THE DIFFERENCE BETWEEN THE BASE PERIOD O&M AND TEST PERIOD O&M[27]?

A. The difference is a decrease of $470,721 and reflects adjustments I have made for labor and benefits, rent, other O&M and bad debt.

Q. PLEASE EXPLAIN YOUR ADJUSTMENT FOR LABOR AND BENEFITS.

A. The labor forecast for the forecasted Test Period is based on the Company's approved FY2021 budget. As part of the normal budgeting process, each employee's total salary, expected capital / expense ratio and expected standby and overtime amounts are included. While there is always a normal level of position vacancy at any given point in time, we strive to fill open positions in a timely manner when and if filling the position is justified by current workload. The Base Period level of total labor expenditures represents a fully staffed level minus the normal level of vacancies and employee levels are projected to remain relatively constant from the base period to the test period. Base pay increases go into effect each October 1 and averaged 3.0% for the increases that are effective October 1, 2020. These increases are captured as part of the FY2021 budget. An adjustment

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[27] Please see Exhibit JTC- 2 for O&M by Cost Element

was made as part of the forecast to account for an average wage increase of 3.0% to become effective October 1, 2021. The 3.0% is consistent with the average level of increases from the past several years. Overall, direct labor expense is projected to increase $200,085 from the base period to the test period.

Benefits are projected as a fixed benefit load percentage of labor expense plus an amount for workers' comp insurance. The Test Period benefits expense of $ 1,695,038 is $110,002 lower than the base period.

Q. PLEASE EXPLAIN YOUR ADJUSTMENT RELATING TO OTHER O&M.

A. Other O&M consists of all expenses except labor, benefits, rent and bad debt. In filings involving forward looking test periods, the Company normally includes in O&M its most recent budget without adjustments for the months where the budget and test year overlap and applies an inflation factor to these O&M categories for months when the forward looking test period extends beyond the Company's budget. However, recognizing the Commission's findings in Case No. 2013-00148,[28] I have not inflated these O&M categories above budgeted levels in this proceeding.

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[28] Case No. 2013-00148, *Application of Atmos Energy Corporation for an Adjustment of Rates and Tariff Modifications* (Ky. PSC Apr. 22, 2014) at 16-17.

Q. PLEASE EXPLAIN YOUR ADJUSTMENT RELATING TO BAD DEBT.

A. Our goal is to keep bad debt no higher than 0.50% of residential, commercial and public authority margin during any given year. But for the COVID-19 Pandemic, we work vigorously to collect bad debts and reduce the impact of bad debt expense on customers. To arrive at the bad debt projection of $363,216, I calculated 0.50% of residential, commercial and public authority margin from the revenue projection in the direct testimony of Company witness Mr. Josh Densman. This projection is $516,579 lower than the Base Period.

Q. GIVEN THE COVID-19 PANDEMIC AND THE COMMISSIONS ORDER SUSPENDING COLLECTIONS, DO YOU BELIEVE THAT 0.50% IS A REASONABLE LEVEL TO USE FOR ESTABLISHING RATES IN THIS CASE?

A. I believe that 0.5% is a very aggressive goal and we will likely exceed this percentage as we return to normal collection activities, however I don’t have any quantitative basis on which to base a different level of expense with the certainty that a ratemaking adjustment requires to be known and measurable.

Q. IS THERE A SOLUTION THAT THE COMMISSION COULD EMPLOY THAT WOULD BALANCE THE INTEREST OF THE CUSTOMER AND THE COMPANY IN REGARD TO BAD DEBT EXPENSE?

A. Yes. Similar to the Depreciation Regulatory Liability, I would encourage the Commission to authorize the Company to establish a regulatory asset and defer write-offs until the next case. The benchmark for bad debt would need to be clearly identified[29] in the final order and would obligate the Company to defer amounts above or below the benchmark and address the amortization of this regulatory asset in the next base rate case. Establishment of a regulatory asset would avoid both an over and under recovery of bad debt expense that is resulting from the uncertainty of COVID-19.

Q. WHAT IS THE AMOUNT OF THE DIVISION'S GENERAL OFFICE O&M ALLOCATED TO KENTUCKY FOR THE BASE PERIOD?

A. $ 5,234,684.

Q. WHAT IS THE AMOUNT OF THE DIVISION'S GENERAL OFFICE O&M BUDGET ALLOCATED TO KENTUCKY FOR THE FORECASTED TEST PERIOD?

A. $4,737,049.

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[29] The Company has included $363,216 for bad debt expense and unless modified during the proceeding would become the benchmark for bad debt expense.

Q. PLEASE DISCUSS THE DIFFERENCES BETWEEN THE GENERAL OFFICE BASE PERIOD AND FORECASTED TEST PERIOD AMOUNTS.

A. The difference is a decrease of $148,118 and reflects adjustments I have made for labor and benefits, and other O&M. The budgeting process and forecast methodologies are identical for both direct O&M and General Office O&M. Therefore, the categories of adjustments made to forecast General Office O&M are also the same as direct.

Q. WHAT IS THE AMOUNT OF SHARED SERVICES O&M ALLOCATED TO KENTUCKY FOR THE BASE PERIOD?

A. $9,943,507.

Q. WHAT IS THE AMOUNT OF THE SHARED SERVICES O&M BUDGET ALLOCATED TO KENTUCKY FOR THE FORECASTED TEST PERIOD?

A. $8,647,639.

Q. PLEASE DISCUSS THE DIFFERENCES BETWEEN THE SHARED SERVICES BASE PERIOD AND FORECASTED TEST PERIOD AMOUNTS.

A. The difference is a decrease of $1,295,868. The SSU budget is prepared in a fashion consistent with that of the Division. Once the SSU department heads complete, submit and get approval for their budgets, the appropriate level of expenses are allocated to the Kentucky rate jurisdiction per the methodologies described in Ms. Michelle Faulk's testimony.

Q. WHO MONITORS SHARED SERVICES BILLINGS TO THE DIVISION?

A. Shared Services expense billings are reviewed as part of our monthly close process described earlier. The Division Finance Department is then responsible for communications with Financial Reporting in Dallas for explanations of any significant variances.

Q. WHAT IS THE TOTAL FORECASTED TEST PERIOD O&M THAT RESULTS FROM THE SUM OF THE DIRECT, GENERAL OFFICE AND SSU COMPONENTS?

A. $29,047,435.

Q. DO THE FORECASTED O&M AMOUNTS DISCUSSED IN YOUR TESTIMONY INCLUDE THE RATEMAKING ADJUSTMENTS QUANTIFIED ON SCHEDULE C-2?

A. Yes. Schedule C-2 contains seven ratemaking adjustments.

- <u>Adjustment for Sales and Promotional Advertising Expenses</u>

  The first adjustment removes $172,549 of sales and promotional advertising from test year sales expense. It is quantified on Schedule F.4.

- <u>Adjustment for Regulatory Asset Amortization Expenses</u>

The second adjustment adds $161,141 to test year administrative and general expense to account for the three year amortization of the expected costs pertaining to this case and Case No. 2018-00281. The amounts are quantified on Schedule F.6.

- <u>Adjustment for Expense Report Exclusion</u>

The third adjustment removes $52,895 of certain expense report items from test year administrative and general expense. The Company's goal is to ensure that its Kentucky rates rest upon a sound foundation of unquestionable costs. The Company is committed to achieving that goal even if it means foregoing recovery of a certain amount of legitimate business expense in an effort to ensure that there can be no question about what remains. The expense report exclusion adjustment is made to exclude certain cost items of which the Company does not intend to seek recovery from its customers in this case. The excluded amounts are quantified on Schedule F.8 and occur in Kentucky as well as the Division General Office and SSU.

- <u>Adjustment for Incentive Compensation</u>

The fourth adjustment removes the performance portion of incentive compensation expenses associated with all of its employees. This adjustment is $1,443,557. The Company believes incentive compensation is a critical part of the ability to attract and retain employees at competitive market rates, and should be included as a recoverable O&M expense. Atmos Energy is not unique in making incentive compensation part of the overall compensation package that it provides to its employees. The Company designs its total compensation package to be in the middle of the job market in which we compete for talent. This means that there are as many companies offering total compensation above Atmos Energy's package as there are below it for comparable jobs. It is important to understand that "total compensation" does not represent only base salary, but also includes bonuses, benefits, retirement, etc. Because Atmos Energy falls in the middle of the job market in terms of the overall compensation packages, the Company believes the incentive compensation costs that are a component of this overall compensation package are reasonable and should be recovered as part of revenue requirement. In order to meet the Company's incentive pay criteria, Company employees must work together to ensure that the Company operates efficiently and effectively. Efficient and effective operations translate into lower costs and therefore into lower rates for customers. Strong financial performance for the Company and lower rates for customers are, therefore, not mutually exclusive. However, in recognition of the Commission's findings in Case No. 2013-00148[30], I have removed this

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[30] *See id.* at 19-20.

expense in this proceeding for the sole purpose of simplifying the regulatory review process. This adjustment is quantified on Schedule F.10.

- <u>Adjustment for Certain Retirement Plan Expenses</u>

  The fifth adjustment removes costs associated with the 401(k) match for employees that also participate in the Company's pension plan. This adjustment is $378,830. While the Company supports the prudency of these costs as part of its comprehensive rewards program for employees, I have removed these costs in the same manner in which they were removed from revenue requirement in Case No. 2018-00281 consistent with the Commission's findings and Final Order[31] for the sole purpose of simplifying the regulatory review process in the current rate case proceeding. This adjustment is quantified on Schedule F.11.

- <u>Adjustment for Directors' Stock Expenses</u>

  The sixth adjustment removes costs associated with stock awarded to members of the Board of Directors as part of their compensation. This adjustment is $138,339. While the Company supports the prudency of these costs as part of its market competitive compensation package for Directors, I have removed these costs in the same manner in which they were removed from revenue requirement in Case No. 2018-00281 consistent with the Commission's

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[31] Case No. 2018-00281, Final Order Page 27.

findings and Final Order[32] for the sole purpose of simplifying the regulatory review process in the current rate case proceeding. This adjustment is quantified on Schedule F.11.

- Adjustment for SERP Expenses

  The seventh adjustment removes $88,305 in costs associated with SERP expense. The Commission noted in Case 2018-00281 that has traditionally denied compensation tied to financial performance standards. The Company's SERP expense is based on a combination of base salary and annual bonus expense therefore is partially based on performance (Performance Share awards and MIP payments) therefore these expenses along with the associated ADIT items have been removed from the case. This adjustment is quantified on Schedule F.9

Q. ARE THERE ANY EXPENSES FOR LOBBYING RELATED ACTIVITIES INCLUDED IN THIS FILING?[33]

A. No. The Company uses external contractors for lobbying activities, and those expenses are coded to account 4264 and recorded below the line. Please see Schedule F-7 for a summary of these expenses. Company witness Brannon Taylor discusses in his direct testimony how Kentucky division employees address any

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[32] Case No. 2018-00281, Final Order, Page 27.

[33] Case No. 2018-00281, Final Order, Page 54

potential indirect connection to those activities to take additional precautions against the inclusion of any lobbying related activities in rates.

Q. DO YOU BELIEVE THAT THE FORECASTED TEST PERIOD O&M BUDGET YOU HAVE PRESENTED IS THE MOST REASONABLE ESTIMATE OF COSTS FOR THE TEST PERIOD USED IN THIS PROCEEDING?

A. Yes. It is the best estimate we have of the Kentucky jurisdiction's future operating and maintenance expenses.

VII. DEPRECIATION EXPENSE AND TAXES OTHER THAN INCOME TAXES

DEPRECIATION

Q. WHAT IS THE DEPRECIATION EXPENSE FOR THE BASE PERIOD?

A. The amount of depreciation expense for the Base Period is $19,295,729.

Q. WHAT IS THE DEPRECIATION EXPENSE FOR THE FORECASTED TEST PERIOD?

A. The amount of depreciation expense for the forecasted Test Period is $20,604,447.

Q. PLEASE DISCUSS THE DIFFERENCES BETWEEN THE BASE PERIOD AND FORECASTED TEST PERIOD DEPRECIATION AMOUNTS.

A. Proposed depreciation rates for the forecasted Test Period are discussed in the testimony of and supported by Company witness Mr. Dane Watson. The depreciation rates are applied to the applicable categories of plant for the Kentucky jurisdiction as well as the General Office and Shared Services division, resulting in total depreciation expense. The amounts allocated from the General Office and SSU to Kentucky are based upon the cost allocation methodology more fully described in Ms. Michelle Faulk's testimony[34].

Q. YOU MENTIONED THE DEPRECIATION REGULATORY LIABILITY IN A PREVIOUS QUESTION AND ANSWER, WHAT IS THE DEPRECIATION REGULATORY LIABILITY?

A. The Final Order in Case No. 2018-00281, Page 59, Ordering Paragraph No. 5 states, "Atmos shall establish a regulatory liability in the amount of $3,676,784 for the remainder of the reduction in depreciation expense, the amortization of which will be addressed in Atmos's next base rate case." The Company understands that the $3,676,784 is an annual amount and therefore divided by 12 and has been recording a regulatory liability entry on a monthly basis for $306,399 beginning in May of 2019. Schedule F-12 accumulates the liability beginning at the beginning of the Base Period and continuing it through the end of the Test Period. As a result a total of $ $9,804,757 will have accumulated over 32 months. WP F-12 presents the same information but assumes that two more months of amortization accrues before rates are implemented

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[34] Please see Exhibit JTC-1 Allocation Factors

Q. HOW DOES THE COMPANY PROPOSE TO RETURN THIS TO THE CUSTOMER?

A. The Company proposes to return the full amount over a 12 month period beginning with the implementation of rates in this case. The rates will be derived by allocating the full $9,804,757[35] among the tariff classes and then developing the rates proportionality between a fixed customer charge and a volumetric rate. Please see Exhibit JTC-3 for proposed Depreciation Reserve Rates that would be implemented if approved by the Commission.

TAXES OTHER THAN INCOME TAXES

Q. WHAT IS THE EXPENSE LEVEL FOR TAXES, OTHER THAN INCOME TAXES FOR THE BASE PERIOD?

A. $9,749,303.

Q. WHAT IS THE LEVEL OF TAXES, OTHER THAN INCOME TAXES FOR THE FORECASTED TEST PERIOD?

A. $10,276,153.

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[35] Please note that the $9,804,757 will need to be adjusted if rates are not implemented January 1, 2022 to account for any months prior to or beyond January 2022.

Q. PLEASE DISCUSS THE DIFFERENCES BETWEEN THE BASE PERIOD AND FORECASTED TEST PERIOD.

A. The difference is an increase of $526,849. The components are itemized by type of tax on Schedule C.2.3 F. For all months of the forecasted Test Period (January 1, 2022 - December 31, 2022), payroll taxes have been escalated from the FY2020 budget to account for base pay increases consistent with my labor forecast. The monthly accrual for the Public Service Commission Assessment is based on the assessment rate and projected Test Period revenues. The DOT transmission user tax has been held constant from the Base Period. The Company's methodology for forecasting ad valorem expense is consistent with the previous case. I developed the ad valorem forecast using the methodology most recently used and approved in the Company's PRP filings. That methodology develops an historical ratio of ad valorem expense to plant and applies the ratio to projected levels of plant for the Forecasted Test Period. The amount of taxes allocated from the Division General Office and SSU is based on the allocation methodologies discussed in the Cost Allocation Manual.

VIII. INCOME TAXES

Q. HOW DO INCOME TAXES IMPACT BASE RATES TO CUSTOMERS?

A. There are currently two main types of rate impacts (1) ongoing statutory income tax expense and (2) a return of the liability for federal excess deferred income taxes.

Q. WHAT ARE THE STATUTORY INCOME TAX RATES UTILIZED BY THE COMPANY IN THIS CASE?

A. The Company's rates current and proposed rates reflect a 21% federal statutory rate and a 5% Kentucky state income tax rate. Because state taxes are deductible from federal income tax purposes, the blended income tax rate is 24.95%.

Q. HOW IS TAX EXPENSE CALCULATED IN THE CURRENT FILING?

A. Tax expense is calculated by applying statutory tax rates to the forecasted return to arrive at required operating income, as shown on Schedule C.1.

Q. IS THIS CALCULATION CONSISTENT WITH THAT IN THE COMPANY'S PREVIOUS RATE CASE FILINGS?

A. Yes. I would note that the Company excludes the impact of the $5.4 million amortization of EDITL in calculating the current income taxes but then provides the benefit to customers on Schedule A.1. The Company's method for flowing through the benefit of EDITL to customers in this manner was affirmed by the Commission's Final Rehearing Order for Case No. 2017-00349 issued on September 17, 2018.

Q. WHY IS CALCULATING THE CURRENT INCOME TAX, EXCLUSIVE OF EDITL AMORTIZATION NECESSARY?

A. If the reduction in present rates for amortization of EDITL was taken into account when calculating the proposed increase, income tax expense calculated on Schedule

C.1, would be artificially lowered for the tax benefit related to the amortization of the EDITL. This tax benefit has already been accounted for when the EDITL was established on the Company's books.

Q. HOW HAS THE TAX EFFECT OF THE AMORTIZATION OF THE EDITL BEEN REFLECTED ON THE COMPANY'S BOOKS AND IN THIS FILING?

A. Upon enactment of the TCJA, in accordance with Generally Accepted Accounting Principles ("GAAP"), the Company recorded on its books and records the regulatory liability for excess deferred income taxes, grossed up for taxes, as well as a deferred tax asset for the tax gross up. Since the flow back of EDITL to customers represents a return of tax expense collected in rates that is in excess of what the Company now expects to pay the federal government, this flow back should not result in additional tax expense or benefit for the customers or the Company. GAAP requirements state that the EDITL must be grossed up for income taxes at the enacted income tax rates to reflect the revenue requirements to be received from or refunded to customers in the future. This grossed up liability is reflected on WP B.5F1 of the model and is the amount the Company has proposed to amortize. The corresponding deferred tax asset for the tax gross up is included in ADIT on Schedule B.5F

Q. WHY WOULD IT BE INAPPROPRIATE TO INCLUDE THE AMORTIZATION OF EDITL CURRENTLY IN RATES IN THE CALCULATION OF THE PROPOSED INCREASE?

A. To do so would duplicate the impact to the revenue requirement of taxes related to the amortization. As I have described, the accounting requirements that the Company complied with and reflected in this filing properly accounted for all impacts to the revenue requirement.

Q. IS THE COMPANY PROPOSING A FURTHER ADJUSTMENT TO THE AMOUNT OF EDITL IN THIS PROCEEDING OR TO THE AMORTIZATION PERIOD?

A. Yes. Since the rate case in Case No. 2018-00281 concluded, the Company has completed and filed its tax return related to the 2018 fiscal year and a detail analysis of the appropriate amortization of protected EDITL to ensure no violation of Internal Revenue Service ("IRS") normalization rules. This resulted in a final adjustment of the EDITL from $35,130,387 to $35,780,760 and a protected amortization period moving from 24 to 22 years. Accordingly, the Company proposes to update the EDITL in this case as shown on WP B.5.F1.

Q. ARE THERE ANY OTHER CHANGES RELATED TO THE EDITL THAT THE COMPANY PROPOSING IN THIS CASE?

A. Yes. In August 2020 the IRS issued Revenue Procedure 2020-39 ("Rev Proc 2020-39"). This revenue procedure state in part, "The appropriate amortization or other ratemaking treatment of timing differences unrelated to accelerated depreciation, such as unprotected plant or non-plant items, are to be determined by the regulator in a rate proceeding, consistent with the regulatory authority over the ratemaking treatment of all other elements of jurisdictional cost of service.[36]"

Q. HOW DOES REV PROC 2020-39 IMPACT THE COMPANY'S EVALUATION OF PROTECTED VS UNPROTECTED EDITL?

A. After reviewing Rev Proc 2020-39 the Company has determined that it can treat all non-property EDITL as unprotected and amortize it back to the customer over a shorter period of time. The Company would propose that the return be over a five year period beginning with the implementation of rates in this case and has included the accelerated EDIT amortization in development of base rates. The division between protected and unprotected along with the amortization is shown on WP B.5.F1.

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[36] Revenue Procedure 2020-39, Section 3. SCOPE .02 Issues beyond the scope of this revenue procedure.

IX. CAPITAL STRUCTURE AND COST OF DEBT

Q. HOW IS ATMOS ENERGY ORGANIZED?

A. Atmos Energy conducts its utility operations in eight states through unincorporated operating divisions.

Q. DO THE COMPANY'S UNINCORPORATED DIVISIONS ISSUE THEIR OWN DEBT OR EQUITY?

A. No. These divisions, including the Kentucky/Mid-States Division, are not separate legal entities. Instead, these unincorporated divisions collectively comprise the legal entity that is Atmos Energy Corporation. Therefore, all debt or equity funding of the operations performed by the utility divisions must be (and is) issued by Atmos Energy Corporation as a whole, on a consolidated basis.

Q. SHOULD ATMOS ENERGY'S CONSOLIDATED CAPITAL STRUCTURE BE USED AS THE BASIS FOR A CAPITAL STRUCTURE IN THIS PROCEEDING?

A. Yes. Although this proceeding only affects the rates which may be charged by the Company for its regulated utility operations in Kentucky, the appropriate capital structure for each of the Atmos Energy utility operating divisions, including its Kentucky/Mid-States Division, is equivalent to the consolidated capital structure for Atmos Energy as a whole. Atmos Energy's consolidated capital structure is appropriate for use in setting rates for the Company's Kentucky customers because

Atmos Energy provides the debt and equity capital that supports the assets serving those customers.

Q. HOW HAS THE COMPANY RELIED ON THE CONSOLIDATED CAPITAL STRUCTURE OF ATMOS ENERGY IN THIS PROCEEDING?

A. The capital structure that is appropriate for the Company's Kentucky operations in this proceeding is set forth in FR 16(8)(j). As shown on FR 16(8)(j), the capital structure is the Company's thirteen month period end actual capital structure as March 31, 2021, with an adjustment to the outstanding long-term debt which I describe below. The thirteen month actual capital structure, as adjusted, for the period ended March 31, 2021 is representative of the capital structure that will be in effect during the forecast period. As shown in that FR, column (G), short term debt comprises 0.02%, long-term debt comprises 42.80% and equity is 57.00% of the Company's 13-month average rate base for the forward looking test period.

Q. WHAT RATE DO YOU PROPOSE FOR THE EMBEDDED COST OF LONG-TERM DEBT CAPITAL IN SETTING RATES IN THIS CASE?

A. As shown in the calculation on Schedule J-3 F, column (e), a 4.00% weighted average cost of long-term debt is supported.

Q. IS THIS THE WEIGHTED AVERAGE COST OF LONG-TERM DEBT FOR THE THIRTEEN MONTHS ENDED MARCH 31, 2021?

A. No. The weighted average cost of long-term debt has been adjusted to reflect the Company's anticipated refinancing of $2.2 billion of financing issued in March of 2021 ("March 21 Financing"). The March 2021 Financing was issued to finance unanticipated natural gas cost related to Winter Storm Uri. The majority, if not all, of this financing will be repaid with a securitization of Winter Storm Uri gas costs in the spring of 2022 therefore I have excluded the debt, and financing costs from this case.

Q. THE COMPANY HAS BEEN ACTIVE IN THE CAPITAL MARKETS SINCE 2014, DO YOU ANTICIPATE THAT THERE WILL BE ADDITIONAL DEBT AND EQUITY ISSUED DURING THE PENDENCY OF THIS CASE?

A. Yes, and I would be amenable to updating the capital structure and embedded cost of long-term debt during rebuttal to reflect any additional financings or changes to the equity balances of the Company. However, as I noted above and as shown in FR 16(7)(h)(11), I don't expect this to have an appreciable impact on the relationship between debt and equity, only on the embedded cost of long-term debt.

Q. WHAT RATE DO YOU PROPOSE FOR THE COST OF SHORT-TERM DEBT CAPITAL IN SETTING RATES IN THIS CASE?

A. As shown in the calculation on Schedule J-2 F, column (e), a 25.17% weighted average cost of short-term debt is supported. Please note that the Company has had very little short-term debt outstanding during the 13 months ended March 2021 therefore the commitment administrative fees associated with the short-term debt gets spread over very few dollars which results in a higher average rate.

Q. IS THIS THE WEIGHTED AVERAGE COST OF SHORT-TERM DEBT FOR THE DAILY OUTSTANDING TWELVE MONTH PERIOD END MARCH 31, 2021?

A. Yes.

Q. HAS THE THIRTEEN MONTH MARCH 31, 2021 SHAREHOLDER EQUITY BALANCE BEEN ADJUSTED IN TO REFLECT THE ISSUANCE OF EQUITY DURING THE BASE OR FORECAST PERIOD?

A. No. I believe that the Company's incremental external financing along with cash flow reinvested in the business will result in an overall capital structure that is in line with the thirteen month ended March 31, 2021 capital structure therefore no adjustment is warranted at this time but as noted above can be updated through the latest quarter end at the time of rebuttal.

Q. DID THE COMMISSION EXPRESS CONCERNS WITH THE COMPANY'S CAPITAL STRUCTURE IN CASE NO. 2018-00281?

A. Yes. After discussing the Attorney General's positions, the Company's rebuttal and accepting the Company's updated position in rebuttal, the Commission stated, "Atmos's increase in common equity is concerning to the Commission, especially as compared to the proxy companies, which the Attorney General contends have a current equity ratio of 50.2 percent. Further, Atmos stated that the average debt/equity ratio for the proxy group, as noted by Value Line for 2021-2023, is 44 percent debt and 56 percent equity…."[37].

Q. HOW DO YOU RESPOND TO THIS CONCERN?

A. As noted in my rebuttal in Case No. 2018-00281, the capital structure proposed and supported in this case represents an actual cost, not a hypothetical or subsidiary cost that is part of a larger holding company and can be leveraged at a higher level in the corporate structure. I also noted that as the factors used by the credit rating agencies to evaluate utilities demonstrate, relying too heavily on long-term debt financing creates risk, as does a regulatory environment that is not supportive of utilities' ability to recover their actual costs and to have the opportunity to earn a fair return on their investments. Moreover, the Company's capital structure is reflective of what is necessary to maintain its current credit metrics.

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[37] Final Order Case No. 2018-00291, page 34.

Q. WHY IS IT IMPORTANT FOR THE COMPANY TO CALCULATE ITS REVENUE REQUIREMENT BASED UPON ITS ACTUAL CAPITAL STRUCTURE?

A. Safe and reliable service cannot be maintained at a reasonable cost if the Company does not have the financial flexibility and strength to access the competitive capital markets on reasonable terms. As the factors used by the credit rating agencies to evaluate utilities demonstrate, relying too heavily on long-term debt financing creates risk, as does a regulatory environment that is not supportive of utilities' ability to recover their actual costs and to have the opportunity to earn a fair return on their investments. Increasing the percentage of long-term debt in the Company's capital structure negatively affects the key financial indicators relied upon by the credit rating agencies, which puts the Company at risk of a credit rating downgrade and increases in the cost of debt financing, both of which adversely affect all of Atmos Energy's stakeholder groups, including its customers, its shareholders, and its bondholders.

Q. CAN ATMOS ENERGY MAINTAIN SAFE AND RELIABLE SERVICE AT A REASONABLE COST OVER THE LONG-TERM IF IT DOES NOT RECOVER ITS ACTUAL COSTS?

A. In order to provide safe, reliable, and affordable service to its customers, Atmos Energy must meet the needs and serve the interests of its various stakeholders, including customers, shareholders, and bondholders. The interests of these stakeholder groups are aligned with maintaining a healthy balance sheet, strong credit ratings, and a supportive regulatory environment, so that the Company has access to capital on reasonable terms in order to make necessary investments.

Safe and reliable service at a reasonable cost cannot be maintained if utilities do not have the financial flexibility and strength to access the competitive capital markets on reasonable terms. The authorization of a capital structure other than the Company's actual capital structure will weaken the Company's financial condition and adversely impact the Company's ability to address expenses and investment, to the detriment of customers and shareholders. Safe and reliable service for customers cannot be sustained over the long term if the interests of shareholders and bondholders are minimized such that the public interest is not optimized.

Q. HAS THE COMPANY'S STRONGER EQUITY POSITION ALLOWED IT TO SUCCESSFULLY MANAGE VARIOUS CHALLENGES THE PAST FIVE YEARS?

A. Yes. Although the TCJA reduced the federal income tax rate and created a need to return deferred taxes to customers resulting in a negative impact to cash flow the Company has been able to adjust its external financing needs and not experience a downgrade by ratings agencies. When the COVID-19 Pandemic resulted in

Emergency Orders being issued across all of our service territories to not disconnect we were able to raise additional debt early in the pandemic to maintain our liquidity during uncertain times. When the Commission lowered our depreciation rates and therefore cut our cash flow from operations, we have been able to manage through the additional strain on our financial metrics. Last, I'll mention that with the financial strength our balance sheet brings at its current capitalization, as part of responding to Winter Storm Uri and despite being put on credit watch by both ratings agencies we were able to quickly raise $2.2 billion to fund extraordinary gas cost on very short notice and increase our liquidity through a new short-term credit facility.

Q. WOULD SETTING THE COMPANY'S CAPITAL STRUCTURE AT ANYTHING OTHER THAN ACTUAL BE BENEFICIAL TO THE CUSTOMER?

A. No. A regulatory environment that does not permit a utility to have a reasonable opportunity to earn a fair return on its prudently incurred cost leads to poor results in the long run. Supporting utilities that invest in the energy infrastructure in a prudent and efficient manner should encouraged, not discouraged through short-sighted regulatory decisions.

Q. DOES ATMOS ENERGY'S ORGANIZATIONAL STRUCTURE SUPPORT CALCULATING THE RATES IN KENTUCKY ON THE COMPANY'S ACTUAL CAPITAL STRUCTURE?

A. Yes, as I stated at the beginning of this section, Atmos Energy conducts utility operations in eight states through unincorporated divisions, including the Company's Kentucky operations.

Q. WHY IS THIS ORGANIZATIONAL STRUCTURE OF ATMOS ENERGY (NON-HOLDING COMPANY) AN IMPORTANT DISTINCTION?

A. Unlike other utilities that operate in Kentucky, the actual capital costs upon which Atmos Energy's Kentucky rates are calculated are not complicated by differing levels of debt/equity ratios at the holding company level vs. the subsidiary level.

Q. ARE THERE ADVANTAGES TO ATMOS ENERGY'S FINANCIAL STRUCTURE?

A. Yes. Operating all of the distribution and transmission business within Atmos Energy Corporation saves administrative costs, results in a more transparent business model, provides more transparency in financial reporting, and allows us to focus on the operational needs of the gas distribution and transmission business and how best to meet the financing needs as we progress through our investment in natural gas infrastructure for growth and system replacement.

X. CASH WORKING CAPITAL

Q. WHY HAS THE COMPANY INCLUDED A LEAD-LAG ANALYSIS WITH THIS CASE?

A. Although the Company was reluctant to file a lead-lag study in prior cases[38] the study filed by the Company in its previous two cases (Case Nos. 2017-00349 and 2018-00281) were accepted "as filed" in the calculation of the rate base in the final order. In light of the Commission's orders in those cases the inclusion of a lead-lag study following the same methodology accepted in calculating lead-lag in Case No. 2017-00349 and Case No. 2018-00218 is appropriate in this case.

Q. WHAT IS THE PURPOSE OF THE LEAD-LAG ANALYSIS?

A. Rate base is the value of invested capital, including all items used to provide utility service. Cash working capital is the capital investment in addition to other rate base items that is required to bridge the gap between when cash is paid for expenses necessary to provide service and when cash is received from customers for that service. As stated above, this amount is included in rate base. A lead-lag analysis is a method of measuring the amount of cash working capital used to provide utility service. This analysis compares two different lags. The lag between (1) the provision of service to customers and the collection of cash from customers is compared to the lag between (2) the recording of expenses and the payment of cash by the company for those expenses.

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[38] The Company had utilized the formula approach of 1/8 of operations and maintenance expenses since its purchase of Western Kentucky Gas Company in 1987.

Q. DO YOU HAVE ANY PAST EXPERIENCE PERFORMING LEAD-LAG STUDIES?

A. Yes. In addition to our most recent Kentucky rate cases I have prepared several lead lag studies for the Company, including studies filed in Atmos Energy's last rate cases in Tennessee, Colorado, and Virginia.

Q. WHERE HAVE YOU INCLUDED THE LEAD-LAG STUDY?

A. I have included the lead lag study as Exhibit JTC-3. For reference, I have continued to name the various Schedules within Exhibit JTC-3 "ATO-CWCx"

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC1.

A. This Schedule actually consists of two parts - Schedule ATO-CWC1A and ATO-CWC1B. Schedule ATO-CWC1 A summarizes the results of the lead-lag analysis for the test period that ends December 31, 2022. It shows the calculation of the cash working capital requirement based on revenue and expense lag days and projected expense amounts in the proposed revenue requirement.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC1B

A. Schedule ATO-CWC1B summarizes the results of the lead-lag analysis for the base period ended September 30, 2021. It shows the calculation of the cash working capital requirement based on revenue and expense lag days and actual expenses for the base period.

Q. PLEASE DESCRIBE HOW SCHEDULES ATO-CWC 1A AND 1B ARE ARRANGED?

A. Column (a) lists the type of expenses analyzed in the lead lag study including gas costs, O&M labor, other O&M, taxes other than income, federal income tax, state income tax, depreciation, long term and short term debt interest expense and return on equity. Schedule ATO-CWC1A Column (b) contains the projected expenses for the forecasted test period and Schedule ATO-CWC1B Column (b) contains the expenses for the base period test year. Schedule ATO-CWC1A and ATO-CWC1B Column (c) divides the expenses in Column (b) by 365 to arrive at the average daily expense. Column (d) contains the revenue lag which is calculated on Schedule ATO-CWC2. Column (e) contains the expense lags which are calculated on Schedule ATO-CWC3 through Schedule ATO-CWC9 and their related Workpapers. Column (f) calculates the net lag by subtracting the expense lag from the revenue lag. Column (g) contains the calculation of the cash working capital requirement which is calculated by multiplying Column (c) times Column (f). The cash working capital requirement to be *deducted* from rate base for the forecasted test period is $3.1 million.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC2.

A. The average revenue lag is calculated on Schedule ATO-CWC2. The revenue lag is the average number of days from the time service is provided by the company until revenue related to that service is available to pay bills. It consists of four subparts: the service lag, the billing lag, the collection lag and the bank lag.

Q. WHAT IS THE SERVICE LAG?

A. The service lag is the average number of days from the time service is provided until the meter is read. Since service is provided daily and meters are read monthly, the service lag is one-half of a month or 15.21 days.

Q. WHAT IS THE BILLING LAG?

A. The billing lag is the time lag from meter reading to bill issuance. The average billing lag based on all bills issued in a heating season month (November) and a non-heating season month (August), was 0.64 days, as compared to 1.41 days in the previous case.

Q. WHY HAS THE BILLING LAG SHOWN IMPROVEMENT SINCE THE PREVIOUS CASE?

A. I attribute the improvement to the increased deployment of automated meter reading since the previous case. This has enabled more bills to be generated on the same day of the read as compared to the previous case.

Q. WHAT IS THE COLLECTION LAG?

A. The collection lag is the average number of days between issuing a bill and receiving payment. This was calculated by dividing the average daily accounts receivable balance by the average daily revenue plus billed taxes. The total revenue plus billed taxes may be found on WP 2-2. It resulted in a lag period of 17.31 days and is an improvement since the previous case result of 23.20 due to lower gas costs as compared to the previous study.

Q. WHAT IS THE BANK LAG?

A. The bank lag is the one-day lag between receiving payment through one of the Company's ten pay channels and having funds available to draw at the bank. Customer accounts receivable balances are credited when payment is received.

Q. WHAT IS THE TOTAL AVERAGE REVENUE LAG?

A. The resulting total average revenue lag is 34.16 days, as shown on the last line of Schedule ATO-CWC2. This compares to 40.82 in the previous case. This overall reduction is a key driver in the lower cash working capital requirement in this case as compared to the previous case.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC3.

A. Schedule ATO-CWC3 shows the calculation of the average purchased gas cost payment lag of 38.74 days from the delivery of the gas to the payment for the gas. The schedule shows the service dates, the invoice date, and the payment date for all gas invoices in the base period.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC4.

A. Schedule ATO-CWC4 shows the calculation of the average payroll lag, which is the average number of days from the time service is provided until payroll related to that service is paid. The payroll lag days consists of: the service lag, the payment lag, and the check-clearing lag. The service lag is the average number of days from the time labor is provided until the end of the pay period. The Company uses a two-week pay period, so the service lag is seven days. The payment lag is the average number of days between the end of the pay period and payment date. With the Company's practice of paying on Friday for a pay period that ended the previous Friday, the payment lag is seven days. Most employees receive their pay via direct deposit, and therefore have no check-clearing lag. However, the few employees that are paid by check result in an average check-clearing lag of 0.08 days. The total average payroll lag is 14.08 days.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC5.

A. Schedule ATO-CWC5 shows the calculation of the average number of lag days for other O&M expenses. The calculation is based on an analysis of payments for the twelve months ended March 31, 2021. I analyzed a random sample of 380 invoices out of the 6,573 total Kentucky O&M invoices to determine the lag between the date services were provided to the Company and the date the Company paid the bill for those services. In most cases, the service period could be determined from the invoice. If no information was available regarding the date service was provided, then the date of the invoice was used in most cases other than utilities, telecom and rent. Please see WP 5-1 for the analysis.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC6.

A. Schedule ATO-CWC6 shows the calculation of the average payment lag days for taxes other than income tax. As each tax has its unique payment due date, the calculation of the lag is shown separately for each type of tax (payroll taxes - FICA and unemployment, ad valorem taxes, taxes property and other, DOT fees, Public Service Commission taxes and franchise and other pass through taxes).

Q. PLEASE DISCUSS THE LAG RELATING TO PAYROLL TAXES.

A. Payroll taxes consist of FICA taxes and unemployment taxes. FICA taxes are paid by wire on the first banking day before each payday. Since paydays are normally on Fridays, FICA lag days are equal to the payroll lag days for direct deposit employees of 14 days less 1 day, for a total lag of 13 days. Unemployment taxes are paid quarterly at the end of the month following each quarter. Therefore, for unemployment taxes, the lag, as calculated from the mid-point of the quarter to the payment date at the end of the following month plus the payroll service lag, is 83.6 days.

Q. PLEASE DISCUSS THE LAG RELATING TO AD VALOREM TAXES.

A. Kentucky Ad Valorem taxes for a calendar year are paid as billed throughout the year following the year of assessment. Therefore, the Kentucky ad valorem tax lag, as calculated from the mid-point of the calendar year to the payment date, is 346.39 days. Ad Valorem taxes allocated from Shared Services are paid by January 31 for the year following the assessment. Therefore, the SSU ad valorem tax lag as calculated from the mid-point of the calendar year to the payment date is 213.50 days.

Q. PLEASE DISCUSS THE LAG RELATING TO TAXES PROPERTY AND OTHER.

A. Taxes Property and Other consist of various franchise agreements that are paid on a per meter basis rather than on a revenue basis and Kentucky Highway Use Tax. The expense lag on the franchise taxes are determined by the franchise with each individual city and may be a prepayment or paid in arrears. The Kentucky Highway Use Tax is paid at the end of the month in the month following the end of each quarter. The weighted average lag of all taxes paid is a prepayment of 58.82 days.

Q. PLEASE DISCUSS THE LAG RELATING TO THE DOT FEE.

A. The annual DOT fee lag of 59 days is calculated from the midpoint of the fiscal year to the payment date on May 28th of the following calendar year.

Q. PLEASE DISCUSS THE LAG RELATING TO THE FRANCHISE AND OTHER PASS THROUGH TAXES.

A. Franchise and other pass through taxes consist of franchise taxes that are paid on a revenue basis, Kentucky sales use tax and Kentucky school tax. The franchise taxes are paid at the end of the month following the end of the quarter. The Kentucky sales use tax and school tax are paid at the end of the month for the prior month. The weighted lag for Franchise and other pass through taxes is 40.19 days.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC7.

A. Schedule ATO-CWC7 shows the calculation of the federal income tax lag. Income taxes for the base period are paid in four quarterly payments during the year. The average lag from the midpoint of the base period to the payment dates is negative 61.75 days. This is the lag for paying current taxes, however taxes that are deferred are recorded as a rate base credit and thus have an expense lag of zero days.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC8.

A. Schedule ATO-CWC8 shows the calculation of the state income tax lag. State income taxes for a fiscal year are paid on the same schedule as federal income taxes. Therefore, the average lag from the midpoint of the tax year to the payment dates is also a negative 61.75 days for paying current taxes, and zero days for deferred taxes.

Q. PLEASE DESCRIBE SCHEDULE ATO-CWC9.

A. Schedule ATO-CWC9 shows the calculation of the long-term debt lag. Long-term debt interest expense includes monthly payments, and semi-annual payments. Interest is recorded on an accrual basis and paid in the period it is due. The long-term debt lag, as calculated from the mid-point of the accrual period to the payment date, averages 91.25 days.

Q. PLEASE DESCRIBE SHORT-TERM DEBT LAG ON ATO-CWC1.

A. In the base period short-term debt interest expense was for commercial paper. Most commercial paper issued by the company is very short-term. Commitment fees are generally paid at the end of the quarter. Other base period short-term debt costs were prepaid. The weighted average short-term debt cost payment lag in the base period was 19.40 days.

Q. HOW DID YOU TREAT PREPAID ITEMS IN THE CALCULATION OF CASH WORKING CAPITAL?

A. Expenses that are paid by the Company before they are recorded as an expense are included with a negative lag to reflect the difference between the payment of the expense and the recording of the expense. With this method both the lag from the payment to the recording of the expense and the subsequent revenue lag from the provision of service to the receipt of cash are recognized in rate base.

Q. IS DEPRECIATION EXPENSE PROPERLY INCLUDED IN THE LEAD-LAG STUDY.

A. Yes, because the payment for the asset precedes the receipt of service from the asset and the recording of depreciation expense. The lag between payment for the asset and the recording of depreciation expense is recognized by the including net plant in service in rate base.

Q. DOES INCLUSION OF PLANT IN SERVICE IN RATE BASE SUFFICE TO PROPERLY ACCOUNT FOR THE ENTIRE LAG RELATING TO DEPRECIATION?

A. No. The inclusion in rate base of plant in service does not recognize the subsequent lag from the provision of service to the receipt of cash for that service. By including depreciation expense in the lead-lag study with a zero expense lag, the lead-lag study properly recognizes the subsequent revenue lag on recovering cash related to investment in plant assets. In other words, the investment in an asset is included in rate base as net plant in service until depreciation is recorded on that asset. Recording depreciation removes the asset from rate base, even though cash has not been received to pay for the service provided by the asset, unless the revenue lag on depreciation expense is included in cash working capital through the lead-lag study.

Q. DISCUSS THE TREATMENT OF RETURN ON EQUITY IN THE LEAD-LAG STUDY.

A. Similar to depreciation, operating income is earned at the provision of utility service. There is again a revenue lag between the provision of service and the receipt of cash for that service. By including return on equity in the lead-lag study with a zero expense lag, the lead-lag study properly recognizes the subsequent revenue lag on recovering cash related return.

XI. CONCLUSION

Q. DO YOU BELIEVE THAT THE FORECASTED TEST PERIOD COST OF SERVICE COMPONENTS YOU HAVE PRESENTED REPRESENT THE MOST REASONABLE ESTIMATE OF COSTS FOR THE TEST PERIOD USED IN THIS PROCEEDING?

A. Yes. The cost of service forecast is the best projection of the Company's future cost of service. The expenses and investments for which the Company seeks recovery have been prudently budgeted and will be prudently incurred.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF)
RATE APPLICATION OF) Case No. 2021-00214
ATMOS ENERGY CORPORATION)

CERTIFICATE AND AFFIDAVIT

The Affiant, Joe T. Christian, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared direct testimony of this affiant in Case No. 2021-00214, in the Matter of the Rate Application of Atmos Energy Corporation, and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared direct pre-filed testimony.

Joe T. Christian

STATE OF TEXAS

COUNTY OF DALLAS

SUBSCRIBED AND SWORN to before me by Joe T. Christian on this the 21st day of June, 2021.

Notary Public

My Commission Expires: 9/01/2024

GISELLE R HEROY
Notary ID #130804842
My Commission Expires
September 1, 2024

Effective October 1, 2020

ATMOS ENERGY CORPORATION

Allocation of Atmos Corporate (Co. # 10) Cost Based on 12 Month Period Ended 9/30/20

	ALL COMPANIES		**30**	**60**	**20**	**20**	**50**	**70**	**80**	**180**
	A. Composite Allocation Factor:	Total	West Tex Div	CO/KS Div	LA Div 007	LA Div 077	Kentucky/ MidStates Div	Mississippi Div	Mid-Tex Div	Atmos P/L
	(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i)**	**(j)**
1	Gross Direct PP&E	**15,831,577,869**	1,092,949,490	750,894,079	384,369,335	858,046,079	1,571,399,765	886,564,153	6,360,262,428	3,894,610,535
2	Average Number of Customers	**3,217,566**	307,488	260,779	73,477	280,594	354,687	247,704	1,692,259	322
3	Total O&M Expense *	**480,744,075**	36,316,770	30,303,179	11,437,183	27,474,255	41,742,549	37,397,297	155,042,377	139,755,611
4	(* w/o Allocation)									
5										
6	Gross Direct PP&E	**100.00%**	**6.71%**	**4.74%**	**2.43%**	**5.42%**	**9.93%**	**5.60%**	**40.17%**	**24.60%**
7	Average Number of Customers	**100.00%**	**9.57%**	**8.10%**	**2.28%**	**8.72%**	**11.02%**	**7.70%**	**52.59%**	**0.01%**
8	Total O&M Expense	**100.00%**	**7.28%**	**6.30%**	**2.38%**	**5.71%**	**8.68%**	**7.78%**	**32.25%**	**29.07%**
9										
10	**Total Composite Factor for FY 2021**	**100.00%**	**7.85%**	**6.38%**	**2.36%**	**6.62%**	**9.88%**	**7.03%**	**41.67%**	**17.89%**
11										

12						
13		**220**	**232**	**234**	**303**	
14		**AELIG**	**UCGS-Barnsley**	**TLGS**	**TLGP**	**Remaining non reg**
15						
16	Gross Direct PP&E	5,232,712	11,339,002	8,480,855	23,163,907	15,910,291
17	Average Number of Customers	256	-		7	-
18	Total O&M Expense *	812,979	223,537	415,025	918,949	238,338
19	(* w/o Allocation)					
20						
21	Gross Direct PP&E	**0.03%**	**0.07%**	**0.05%**	**0.15%**	**0.10%**
22	Average Number of Customers	**0.01%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
23	Total O&M Expense	**0.17%**	**0.05%**	**0.09%**	**0.19%**	**0.05%**
24						
25	**Total Composite Factor for FY 2021**	**0.07%**	**0.04%**	**0.05%**	**0.11%**	**0.05%**
26						

Exhibit JTC-1
Case No. 2021-00214

Atmos Energy Corporation
Atmos Energy Mid States Div
Development of Allocation Factors
Effective October 1, 2020

Line #	Div #	Division Name	Sept ' 20 Direct Property Plant & Equipment	Percent of MidStates Property	YE Sept '20 Total O &M w/o 922	Percent of MidStates O & M	YE Sept '20 Avg Number of Customers	Percent of MidStates Customers	STAT Sub account for customers	**MidStates Allocation Percent**
	(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i)**	**(j)**
1										
2	09	KENTUCKY	776,387,470	49.49286	16,144,027	51.34587	178,882	50.43376	91C09	**50.42417**
3	93	TENNESSEE	681,920,605	43.47082	12,378,421	39.36941	152,035	42.86455	91C93	**41.90160**
4	96	VIRGINIA	110,377,659	7.03631	2,919,274	9.28472	23,770	6.70168	91C96	**7.67424**
5										
6										
7		Total	1,568,685,734.60	100.00	31,441,722.61	100.00	354,687	100.00		100.00

Exhibit JTC-2
Case No. 2021-00214

O&M by Cost Element

	Kentucky			SSU			Division General Office			Total		
	Base	Test	Difference	Base	Test	Difference	Base	Test	Difference	Base	Test	Difference
Labor	$ 5,363,213	$ 5,563,298	$ 200,085	$ 4,348,899	$ 4,535,481	$ 186,582	$ 1,485,814	$ 1,543,295	$ 57,482	$ 11,197,925	$ 11,642,074	$ 444,149
Benefits	1,805,039	1,695,038	(110,002)	1,424,402	1,560,446	136,044	436,276	526,913	90,637	3,665,718	3,782,397	116,680
Employee Welfare	80,887	80,887	-	1,923,950	1,832,488	(91,462)	666,055	666,055	(0)	2,670,892	2,579,430	(91,462)
Insurance	94,936	94,936	-	1,618,995	1,464,627	(154,368)	109,655	109,655	(0)	1,823,586	1,669,218	(154,368)
Rent, Maint., & Utilities	1,035,431	1,035,431	-	395,750	396,472	722	215,662	215,662	(0)	1,646,843	1,647,565	722
Vehicles & Equip	895,435	895,435	-	3,979	3,983	4	18,734	18,734	(0)	918,149	918,153	4
Materials & Supplies	790,925	790,925	-	55,224	55,141	(83)	38,834	38,834	(0)	884,984	884,900	(83)
Information Technologies	27,125	27,125	-	1,568,579	1,563,105	(5,473)	72,442	72,442	(0)	1,668,145	1,662,672	(5,473)
Telecom	188,411	188,411	-	142,295	142,835	539	173,206	173,206	(0)	503,912	504,452	539
Marketing	160,977	160,977	-	12,100	12,066	(35)	142,548	142,548	(0)	315,625	315,591	(35)
Directors & Shareholders &PR	249	249	-	324,998	323,415	(1,583)	76	76	(0)	325,323	323,740	(1,583)
Dues & Donations	103,409	103,409	-	42,447	42,190	(257)	51,142	51,142	(0)	196,997	196,740	(257)
Print & Postages	45,149	45,149	-	25,531	25,471	(60)	8,097	8,097	(0)	78,776	78,717	(60)
Travel & Entertainment	363,216	363,216	-	109,086	108,959	(127)	256,213	256,213	(0)	728,516	728,389	(127)
Training	15,437	15,437	-	47,618	47,371	(246)	37,012	37,012	(0)	100,067	99,821	(246)
Outside Services	4,107,697	4,107,697	-	1,414,531	1,411,017	(3,514)	1,489,349	1,489,349	(0)	7,011,578	7,008,064	(3,514)
Provision for Bad Debt	880,036	363,458	(516,579)	1,025,317	1,018,819	(6,499)	89,985	89,985	(0)	1,995,339	1,472,261	(523,077)
Miscellaneous	175,897	175,897	-	(4,540,195)	(4,463,016)	77,179	(56,417)	(56,417)	0	(4,420,716)	(4,343,536)	77,179
Total O&M Expenses	**$ 16,133,469**	**$ 15,706,974**	**$ (426,495)**	**$ 9,943,507**	**$ 10,080,870**	**$ 137,364**	**$ 5,234,684**	**$ 5,382,802**	**$ 148,119**	**$ 31,311,660**	**$ 31,170,646**	**$ (141,013)**
RateMaking Adjustments:	16,133,469	15,706,974		(9,943,507)	(10,080,870)		(5,234,684)	(5,382,802)		(31,311,659)	(31,170,646)	
Advertising Adjustments		(150,930)	(150,930)		(11,761)	(11,761)		(9,858)	(9,858)		(172,549)	(172,549)
Club Expenses		(9,878)	(9,878)								(9,878)	(9,878)
Expense Report Exclusions		(29,135)	(29,135)		(12,069)	(12,069)		(11,690)	(11,690)		(52,895)	(52,895)
SERP Expense					(67,601)	(67,601)		(20,704)	(20,704)		(88,305)	(88,305)
Regulatory Asset Amortizations		161,141	161,141			-			-		161,141	161,141
Incentive Compensation		(15,424)	(15,424)		(824,631)	(824,631)		(603,501)	(603,501)		(1,443,557)	(1,443,557)
Director's and Retirement Expenses					(517,169)	(517,169)					(517,169)	(517,169)
Grand Total	**$ 16,133,469**	**$ 15,662,747**	**$ (470,721)**	**$ 9,943,507**	**$ 8,647,639**	**$ (1,295,868)**	**$ 5,234,684**	**$ 4,737,049**	**$ (497,634)**	**$ 31,311,660**	**$ 29,047,435**	**$ (2,264,224)**

EXHIBIT JTC-3

ATMOS ENERGY CORPORATION - KENTUCKY
DEPRECIATION LIABILITY RESERVE - REFUND RATES
TEST YEAR ENDING DEC, 31 2022

Line No.	Billing Component	Applicable Tariffs	Current Rate	Proposed Rate	
	(a)	(b)	(c)	(d)	(e)
1	CUSTOMER CHARGES, $/month				
2	Firm Services - Residential	G-1		($2.17)	
3	Firm Services - Non-Residential	G-1		(5.90)	
4	Interruptible Sales	G-2		(47.81)	
5	Firm Transportation	T-4		(48.09)	
6	Interruptible Transportation	T-3		(47.81)	
7					
8	DISTRIBUTION CHARGES, $/Mcf				
9	Firm Sales	G-1			
10	1-300 Mcf			$ (0.1571)	
11	301-15000 Mcf			(0.1571)	
12	Over 15000			(0.1571)	
13	Firm Transportation	T-4			
14	1-300 Mcf			$ (0.0997)	
15	301-15000 Mcf			(0.0997)	
16	Over 15000			(0.0997)	
17	Interruptible Sales	G-2			
18	1-15000 Mcf			$ (0.0927)	
19	Over 15000			(0.0927)	
20	Interruptible Transportation	T-3			
21	1-15000 Mcf			$ (0.0927)	
22	Over 15000			(0.0927)	
23					

Atmos Energy Corporation
LEAD/LAG STUDY

Company Name:	Atmos Energy Corporation
Jurisdiction:	Kentucky
Base Period:	30-Sep-21
Forecast Test Year:	31-Dec-22
Test Year for Lead/Lag Study:	31-Mar-21

ATO-CWC1 A

Atmos Energy Corporation-Kentucky
Cash Working Capital Lead/Lag Analysis
For Forecast Test Year Ended December 31, 2022

Line No.	**Description**	**Test Year Expenses**	**Average Daily Expense (b) / 365 days**		**Revenue Lag**		**Expense Lag**	**Net Lag (d) - (e)**	**CWC Requirement (c) x (f)**
	(a)	(b)	(c)		(d)		(e)	(f)	(g)
1	Gas Supply Expense								
2	Purchased Gas	77,873,656	213,352	*CWC2*	34.16	*CWC3*	38.74	(4.58)	(977,152)
3									
4	Operation and Maintenance Expense								
5	O&M, Labor	11,642,074	31,896	*CWC2*	34.16	*CWC4*	14.08	20.08	640,472
6	O&M, Non-Labor	17,514,353	47,985	*CWC2*	34.16	*CWC5*	28.06	6.10	292,709
7	Total O&M Expense	29,156,427							933,180
8									
9	Taxes Other Than Income								
10	Ad Valorem	8,660,652	23,728	*CWC2*	34.16	*CWC6*	346.39	(312.23)	(7,408,624)
11	Taxes Property and Other	19,475	53	*CWC2*	34.16	*CWC6*	58.82	(24.66)	(1,307)
12	Payroll Taxes	559,730	1,534	*CWC2*	34.16	*CWC6*	83.63	(49.47)	(75,879)
13	Franchise and other pass through	8,874,645	24,314	*CWC2*	34.16	*CWC6*	40.19	(6.03)	(146,568)
14	Public Service Commission	390,531	1,070	*N/A*	0.00	*CWC6*	0.00	0.00	0
15	DOT	145,406	398	*CWC2*	34.16	*CWC6*	59.00	(24.84)	(9,886)
16									
17	Allocated Taxes-Shared Services								
18	Ad Valorem	110,118	302	*CWC2*	34.16	*CWC6*	213.50	(179.34)	(54,161)
19	Payroll Taxes	258,445	708	*CWC2*	34.16	*CWC6*	83.63	(49.47)	(35,021)
20									
21	Allocated Taxes-Business Unit								
22	Ad Valorem	0	0	*CWC2*	34.16	*CWC6*	346.39	(312.23)	0
23	Payroll Taxes	134,837	369	*CWC2*	34.16	*CWC6*	83.63	(49.47)	(18,253)
24	Total Taxes Other Than Income	19,153,840							(7,749,699)
25									
26	Federal Income Tax	*9,332,908*							
27	Current Taxes	0	0	*CWC2*	34.16	*CWC7*	(61.75)	95.91	0
28	Deferred Taxes	9,332,908	25,570	*CWC2*	34.16	*CWC7*	0.00	34.16	873,471
29									
30	State Income Tax	2,358,158							
31	Current Taxes	0	0	*CWC2*	34.16	*CWC8*	(61.75)	95.91	0
32	Deferred Taxes	2,358,158	6,461	*CWC2*	34.16	*CWC8*	0.00	34.16	220,708
33									
34	Depreciation	20,604,447	56,451	*CWC2*	34.16		0	34.16	1,928,366
35									
36	Interest Expense - STD	298,065	817	*CWC2*	34.16	*(1)*	19.40	14.76	12,059
37									
38	Interest Expense - LTD	10,198,592	27,941	*CWC2*	34.16	*CWC9*	91.25	(57.09)	(1,595,152)
39									
40	Return on Equity	35,171,670	96,361	*CWC2*	34.16		0	34.16	3,291,692
41									
42	TOTAL	204,147,764							(3,062,527)
43									
44	(1) Please see relied file labeled "CWC1 STD Days Outstanding.pdf (Page 9)" for calculation of average days held								

ATO-CWC1 B

Atmos Energy Corporation-Kentucky
Cash Working Capital Lead/Lag Analysis
For Base Period Ended September 30, 2021

Line No.	Description	Test Year Expenses	Average Daily Expense (b) / 365 days		Revenue Lag		Expense Lag	Net Lag (d) - (e)	CWC Requirement (c) x (f)
	(a)	(b)	(c)		(d)		(e)	(f)	(g)
1	Gas Supply Expense								
2	Purchased Gas	77,873,656	213,352	*CWC2*	34.16	*CWC3*	38.74	(4.58)	(977,154)
3									
4	Operation and Maintenance Expense								
5	O&M, Labor	11,197,925	30,679	*CWC2*	34.16	*CWC4*	14.08	20.08	616,039
6	O&M, Non-Labor	20,113,734	55,106	*CWC2*	34.16	*CWC5*	28.06	6.10	336,147
7	Total O&M Expense	31,311,659							952,187
8									
9	Taxes Other Than Income								
10	Ad Valorem	8,118,738	22,243	*CWC2*	34.16	*CWC6*	346.39	(312.23)	(6,944,997)
11	Taxes Property and Other	2,071	6	*CWC2*	34.16	*CWC6*	58.82	(24.66)	(140)
12	Payroll Taxes	441,245	1,209	*CWC2*	34.16	*CWC6*	83.63	(49.47)	(59,798)
13	Franchise and other pass through	8,874,645	24,314	*CWC2*	34.16	*CWC6*	40.19	(6.03)	(146,568)
14	Public Service Commission	355,417	974	*N/A*	0.00	*CWC6*	0.00	0.00	0
15	DOT	219,252	601	*CWC2*	34.16	*CWC6*	59.00	(24.84)	(14,921)
16									
17	Allocated Taxes-Shared Services								
18	Ad Valorem	52,699	144	*CWC2*	34.16	*CWC6*	213.50	(179.34)	(25,893)
19	Payroll Taxes	300,360	823	*CWC2*	34.16	*CWC6*	83.63	(49.47)	(40,705)
20									
21	Allocated Taxes-Business Unit								
22	Ad Valorem	0	0	*CWC2*	34.16	*CWC6*	346.39	(312.23)	0
23	Payroll Taxes	200,995	551	*CWC2*	34.16	*CWC6*	83.63	(49.47)	(27,239)
24	Total Taxes Other Than Income	18,565,422							(7,260,262)
25									
26	Federal Income Tax	6,177,506							
27	Current Taxes	0	0	*CWC2*	34.16	*CWC7*	(61.75)	95.91	0
28	Deferred Taxes	6,177,506	16,925	*CWC2*	34.16	*CWC7*	0.00	34.16	578,147
29									
30	State Income Tax	325,132							
31	Current Taxes	0	0	*CWC2*	34.16	*CWC8*	(61.75)	95.91	0
32	Deferred Taxes	325,132	891	*CWC2*	34.16	*CWC8*	0.00	34.16	30,429
33									
34	Depreciation	19,295,729	52,865	*CWC2*	34.16		0	34.16	1,805,869
35									
36	Interest Expense - STD	273,867	750	*CWC2*	34.16	*(1)*	19.40	14.76	11,075
37									
38	Interest Expense - LTD	9,366,243	25,661	*CWC2*	34.16	*CWC9*	91.25	(57.09)	(1,464,983)
39									
40	Return on Equity	33,302,197	91,239	*CWC2*	34.16		0	34.16	3,116,721
41									
42	TOTAL	196,491,411							(3,207,973)
43									

44 (1) Please see relied file labeled "CWC1 STD Days Outstanding.pdf (Page 9)" for calculation of average days held

ATO-CWC2

Atmos Energy Corporation-Kentucky
Revenue Lag Study
For the CWC Study Test Year Ended March 31, 2021

Line No.	Description (a)	Weighted Average Lag (b)
1	**Average Billing Lag (1) =**	0.64
2		
3	**Service Lag =**	15.21
4		
5	**Collection Lag:**	17.31
6	(Test Yr Average Daily Accounts Receivable / Test Yr Average Daily Revenue)	
7		
8	**Bank Lag (2) =**	1.00
9		
10	**Total Revenue Lag =**	34.16
11		
12	Notes:	
13	(1) Please see the relied upon labeled "CWC2 Read to Billing Lag" for the billing lag	
14	for the months of September, 2017 and January, 2018	
15	(2) Please see the relied upon labeled "CWC2 Bank Lag" for the lag by payment channel	

Atmos Energy Corporation-Kentucky
Revenue Lag Study - Daily Accts Receivable Balances for Mid-States
For the CWC Study Test Year Ended March 31, 2021

CWC WP 2-1

Line No.	Date	Total
1	Wednesday, April 1, 2020	9,331,184.88
2	Thursday, April 2, 2020	9,506,129.74
3	Friday, April 3, 2020	9,639,303.85
4	Saturday, April 4, 2020	9,639,303.85
5	Sunday, April 5, 2020	9,533,324.84
6	Monday, April 6, 2020	7,852,709.56
7	Tuesday, April 7, 2020	7,596,891.15
8	Wednesday, April 8, 2020	7,344,727.31
9	Thursday, April 9, 2020	7,604,955.81
10	Friday, April 10, 2020	7,604,955.81
11	Saturday, April 11, 2020	7,604,955.81
12	Sunday, April 12, 2020	7,218,221.30
13	Monday, April 13, 2020	5,824,792.95
14	Tuesday, April 14, 2020	5,869,542.02
15	Wednesday, April 15, 2020	7,072,291.80
16	Thursday, April 16, 2020	7,464,120.80
17	Friday, April 17, 2020	7,948,256.20
18	Saturday, April 18, 2020	7,948,256.20
19	Sunday, April 19, 2020	7,446,363.72
20	Monday, April 20, 2020	7,446,363.72
21	Tuesday, April 21, 2020	7,764,338.32
22	Wednesday, April 22, 2020	7,737,230.61
23	Thursday, April 23, 2020	8,138,200.46
24	Friday, April 24, 2020	8,494,695.95
25	Saturday, April 25, 2020	8,494,695.95
26	Sunday, April 26, 2020	8,384,745.35
27	Monday, April 27, 2020	7,908,961.19
28	Tuesday, April 28, 2020	7,968,982.57
29	Wednesday, April 29, 2020	7,882,036.89
30	Thursday, April 30, 2020	7,674,994.06
31	Friday, May 1, 2020	7,623,996.06
32	Saturday, May 2, 2020	7,547,499.06
33	Sunday, May 3, 2020	7,522,000.54
34	Monday, May 4, 2020	6,228,300.64
35	Tuesday, May 5, 2020	6,160,952.88
36	Wednesday, May 6, 2020	5,862,542.15
37	Thursday, May 7, 2020	6,371,299.86
38	Friday, May 8, 2020	5,546,638.31
39	Saturday, May 9, 2020	5,546,638.31
40	Sunday, May 10, 2020	5,442,693.04
41	Monday, May 11, 2020	5,004,236.58
42	Tuesday, May 12, 2020	4,991,766.28
43	Wednesday, May 13, 2020	4,991,552.08
44	Thursday, May 14, 2020	5,307,985.03
45	Friday, May 15, 2020	6,937,809.60
46	Saturday, May 16, 2020	6,937,809.60
47	Sunday, May 17, 2020	6,852,722.81
48	Monday, May 18, 2020	6,484,394.01
49	Tuesday, May 19, 2020	6,582,523.80
50	Wednesday, May 20, 2020	6,575,690.60
51	Thursday, May 21, 2020	6,765,062.54
52	Friday, May 22, 2020	7,126,767.53
53	Saturday, May 23, 2020	7,126,767.53
54	Sunday, May 24, 2020	7,126,767.53

Atmos Energy Corporation-Kentucky
Revenue Lag Study - Daily Accts Receivable Balances for Mid-States
For the CWC Study Test Year Ended March 31, 2021

CWC WP 2-1

Line No.	Date	Total
55	Monday, May 25, 2020	6,974,063.78
56	Tuesday, May 26, 2020	5,985,820.01
57	Wednesday, May 27, 2020	5,907,552.41
58	Thursday, May 28, 2020	5,810,820.34
59	Friday, May 29, 2020	5,535,068.53
60	Saturday, May 30, 2020	5,535,068.53
61	Sunday, May 31, 2020	5,473,675.14
62	Monday, June 1, 2020	4,721,290.59
63	Tuesday, June 2, 2020	4,551,588.02
64	Wednesday, June 3, 2020	4,418,906.02
65	Thursday, June 4, 2020	4,529,662.63
66	Friday, June 5, 2020	4,618,702.40
67	Saturday, June 6, 2020	4,618,702.40
68	Sunday, June 7, 2020	4,548,218.78
69	Monday, June 8, 2020	3,864,392.92
70	Tuesday, June 9, 2020	2,960,609.41
71	Wednesday, June 10, 2020	2,923,742.33
72	Thursday, June 11, 2020	3,150,434.28
73	Friday, June 12, 2020	4,518,457.40
74	Saturday, June 13, 2020	4,518,457.40
75	Sunday, June 14, 2020	4,459,672.36
76	Monday, June 15, 2020	4,340,268.31
77	Tuesday, June 16, 2020	4,586,291.07
78	Wednesday, June 17, 2020	4,827,192.07
79	Thursday, June 18, 2020	5,011,518.33
80	Friday, June 19, 2020	5,151,878.54
81	Saturday, June 20, 2020	5,151,878.54
82	Sunday, June 21, 2020	5,076,973.97
83	Monday, June 22, 2020	4,792,652.15
84	Tuesday, June 23, 2020	4,858,985.91
85	Wednesday, June 24, 2020	4,942,227.50
86	Thursday, June 25, 2020	5,015,450.97
87	Friday, June 26, 2020	5,039,515.93
88	Saturday, June 27, 2020	5,039,515.93
89	Sunday, June 28, 2020	4,970,426.94
90	Monday, June 29, 2020	4,201,987.34
91	Tuesday, June 30, 2020	3,758,003.27
92	Wednesday, July 1, 2020	3,529,659.92
93	Thursday, July 2, 2020	3,650,127.21
94	Friday, July 3, 2020	3,650,127.21
95	Saturday, July 4, 2020	3,650,127.21
96	Sunday, July 5, 2020	3,447,125.51
97	Monday, July 6, 2020	2,949,191.17
98	Tuesday, July 7, 2020	2,416,875.41
99	Wednesday, July 8, 2020	2,442,815.06
100	Thursday, July 9, 2020	2,616,114.96
101	Friday, July 10, 2020	2,827,514.76
102	Saturday, July 11, 2020	2,827,514.76
103	Sunday, July 12, 2020	2,780,072.29
104	Monday, July 13, 2020	2,417,832.42
105	Tuesday, July 14, 2020	2,568,411.50
106	Wednesday, July 15, 2020	2,697,846.14
107	Thursday, July 16, 2020	2,978,002.28
108	Friday, July 17, 2020	3,271,358.91
109	Saturday, July 18, 2020	3,271,358.91

Atmos Energy Corporation-Kentucky CWC WP 2-1
Revenue Lag Study - Daily Accts Receivable Balances for Mid-States
For the CWC Study Test Year Ended March 31, 2021

Line No.	Date	Total
110	Sunday, July 19, 2020	3,219,682.18
111	Monday, July 20, 2020	3,309,048.90
112	Tuesday, July 21, 2020	4,517,982.86
113	Wednesday, July 22, 2020	4,683,645.35
114	Thursday, July 23, 2020	4,904,944.89
115	Friday, July 24, 2020	5,161,157.02
116	Saturday, July 25, 2020	5,161,157.02
117	Sunday, July 26, 2020	5,102,194.05
118	Monday, July 27, 2020	4,784,889.57
119	Tuesday, July 28, 2020	4,806,909.64
120	Wednesday, July 29, 2020	4,575,946.68
121	Thursday, July 30, 2020	4,465,537.83
122	Friday, July 31, 2020	4,351,682.59
123	Saturday, August 1, 2020	4,317,015.62
124	Sunday, August 2, 2020	4,282,348.64
125	Monday, August 3, 2020	3,745,134.97
126	Tuesday, August 4, 2020	3,613,282.84
127	Wednesday, August 5, 2020	3,578,814.20
128	Thursday, August 6, 2020	3,626,126.21
129	Friday, August 7, 2020	3,773,857.35
130	Saturday, August 8, 2020	3,773,857.35
131	Sunday, August 9, 2020	3,722,012.93
132	Monday, August 10, 2020	3,219,503.96
133	Tuesday, August 11, 2020	3,136,752.04
134	Wednesday, August 12, 2020	3,189,188.92
135	Thursday, August 13, 2020	2,849,432.45
136	Friday, August 14, 2020	3,065,839.02
137	Saturday, August 15, 2020	3,065,839.02
138	Sunday, August 16, 2020	3,013,936.10
139	Monday, August 17, 2020	2,798,444.82
140	Tuesday, August 18, 2020	4,085,483.51
141	Wednesday, August 19, 2020	4,531,015.01
142	Thursday, August 20, 2020	4,719,039.34
143	Friday, August 21, 2020	4,964,135.58
144	Saturday, August 22, 2020	4,964,135.58
145	Sunday, August 23, 2020	4,917,512.61
146	Monday, August 24, 2020	4,664,104.67
147	Tuesday, August 25, 2020	4,790,526.85
148	Wednesday, August 26, 2020	4,852,889.43
149	Thursday, August 27, 2020	5,028,215.96
150	Friday, August 28, 2020	4,954,326.54
151	Saturday, August 29, 2020	4,954,326.54
152	Sunday, August 30, 2020	4,884,425.86
153	Monday, August 31, 2020	4,439,920.35
154	Tuesday, September 1, 2020	4,161,700.02
155	Wednesday, September 2, 2020	4,176,007.19
156	Thursday, September 3, 2020	4,248,560.27
157	Friday, September 4, 2020	4,369,952.95
158	Saturday, September 5, 2020	4,369,952.95
159	Sunday, September 6, 2020	4,369,952.95
160	Monday, September 7, 2020	4,197,198.13
161	Tuesday, September 8, 2020	3,510,825.23
162	Wednesday, September 9, 2020	3,416,134.07
163	Thursday, September 10, 2020	2,834,645.51
164	Friday, September 11, 2020	3,094,873.24

Atmos Energy Corporation-Kentucky
Revenue Lag Study - Daily Accts Receivable Balances for Mid-States
For the CWC Study Test Year Ended March 31, 2021

CWC WP 2-1

Line No.	Date	Total
165	Saturday, September 12, 2020	3,094,873.24
166	Sunday, September 13, 2020	3,055,149.05
167	Monday, September 14, 2020	2,686,280.45
168	Tuesday, September 15, 2020	2,834,653.42
169	Wednesday, September 16, 2020	3,013,900.13
170	Thursday, September 17, 2020	3,247,997.34
171	Friday, September 18, 2020	3,601,302.59
172	Saturday, September 19, 2020	3,601,302.59
173	Sunday, September 20, 2020	3,548,858.66
174	Monday, September 21, 2020	5,051,582.03
175	Tuesday, September 22, 2020	5,145,337.13
176	Wednesday, September 23, 2020	5,215,625.71
177	Thursday, September 24, 2020	5,530,625.45
178	Friday, September 25, 2020	5,752,698.29
179	Saturday, September 26, 2020	5,752,698.29
180	Sunday, September 27, 2020	5,683,066.49
181	Monday, September 28, 2020	5,573,123.76
182	Tuesday, September 29, 2020	5,277,209.60
183	Wednesday, September 30, 2020	5,066,502.88
184	Thursday, October 1, 2020	5,083,586.42
185	Friday, October 2, 2020	5,219,764.23
186	Saturday, October 3, 2020	5,219,764.23
187	Sunday, October 4, 2020	5,156,720.23
188	Monday, October 5, 2020	4,663,061.43
189	Tuesday, October 6, 2020	4,491,779.95
190	Wednesday, October 7, 2020	4,406,522.23
191	Thursday, October 8, 2020	4,573,617.12
192	Friday, October 9, 2020	4,727,520.92
193	Saturday, October 10, 2020	4,727,520.92
194	Sunday, October 11, 2020	4,667,198.97
195	Monday, October 12, 2020	4,475,236.89
196	Tuesday, October 13, 2020	4,506,247.00
197	Wednesday, October 14, 2020	4,700,410.32
198	Thursday, October 15, 2020	5,140,584.17
199	Friday, October 16, 2020	5,483,657.51
200	Saturday, October 17, 2020	5,483,657.51
201	Sunday, October 18, 2020	5,424,151.14
202	Monday, October 19, 2020	5,384,102.69
203	Tuesday, October 20, 2020	5,549,312.87
204	Wednesday, October 21, 2020	5,618,300.43
205	Thursday, October 22, 2020	5,933,326.09
206	Friday, October 23, 2020	6,249,443.38
207	Saturday, October 24, 2020	6,249,443.38
208	Sunday, October 25, 2020	6,155,709.58
209	Monday, October 26, 2020	5,914,936.82
210	Tuesday, October 27, 2020	5,921,626.73
211	Wednesday, October 28, 2020	5,632,510.72
212	Thursday, October 29, 2020	5,543,847.68
213	Friday, October 30, 2020	5,365,067.80
214	Saturday, October 31, 2020	5,329,018.16
215	Sunday, November 1, 2020	5,293,077.05
216	Monday, November 2, 2020	4,692,905.37
217	Tuesday, November 3, 2020	4,520,607.96
218	Wednesday, November 4, 2020	4,514,327.97
219	Thursday, November 5, 2020	5,077,626.22

Atmos Energy Corporation-Kentucky CWC WP 2-1
Revenue Lag Study - Daily Accts Receivable Balances for Mid-States
For the CWC Study Test Year Ended March 31, 2021

Line No.	Date	Total
220	Friday, November 6, 2020	4,537,045.80
221	Saturday, November 7, 2020	4,537,045.80
222	Sunday, November 8, 2020	4,457,222.44
223	Monday, November 9, 2020	3,927,226.66
224	Tuesday, November 10, 2020	4,110,732.40
225	Wednesday, November 11, 2020	4,352,732.67
226	Thursday, November 12, 2020	4,773,457.37
227	Friday, November 13, 2020	5,149,023.23
228	Saturday, November 14, 2020	5,149,023.23
229	Sunday, November 15, 2020	5,054,262.08
230	Monday, November 16, 2020	5,097,068.24
231	Tuesday, November 17, 2020	5,511,802.16
232	Wednesday, November 18, 2020	7,862,569.03
233	Thursday, November 19, 2020	8,362,667.88
234	Friday, November 20, 2020	8,908,834.66
235	Saturday, November 21, 2020	8,908,834.66
236	Sunday, November 22, 2020	8,781,547.74
237	Monday, November 23, 2020	8,235,203.40
238	Tuesday, November 24, 2020	8,125,255.81
239	Wednesday, November 25, 2020	7,755,584.65
240	Thursday, November 26, 2020	7,755,584.65
241	Friday, November 27, 2020	7,755,584.65
242	Saturday, November 28, 2020	7,755,584.65
243	Sunday, November 29, 2020	7,443,195.08
244	Monday, November 30, 2020	6,786,623.17
245	Tuesday, December 1, 2020	6,397,038.19
246	Wednesday, December 2, 2020	6,429,063.24
247	Thursday, December 3, 2020	6,885,998.36
248	Friday, December 4, 2020	7,163,889.33
249	Saturday, December 5, 2020	7,163,889.33
250	Sunday, December 6, 2020	7,072,679.68
251	Monday, December 7, 2020	6,031,460.21
252	Tuesday, December 8, 2020	6,178,008.90
253	Wednesday, December 9, 2020	6,165,247.38
254	Thursday, December 10, 2020	6,831,734.81
255	Friday, December 11, 2020	6,348,404.22
256	Saturday, December 12, 2020	6,348,404.22
257	Sunday, December 13, 2020	6,270,975.15
258	Monday, December 14, 2020	8,019,567.87
259	Tuesday, December 15, 2020	8,722,137.69
260	Wednesday, December 16, 2020	9,609,416.05
261	Thursday, December 17, 2020	10,416,763.38
262	Friday, December 18, 2020	10,899,575.89
263	Saturday, December 19, 2020	10,899,575.89
264	Sunday, December 20, 2020	10,771,240.52
265	Monday, December 21, 2020	10,375,485.00
266	Tuesday, December 22, 2020	10,745,720.97
267	Wednesday, December 23, 2020	11,443,344.40
268	Thursday, December 24, 2020	11,443,344.40
269	Friday, December 25, 2020	11,443,344.40
270	Saturday, December 26, 2020	11,443,344.40
271	Sunday, December 27, 2020	11,119,422.13
272	Monday, December 28, 2020	10,369,725.72
273	Tuesday, December 29, 2020	10,496,713.85
274	Wednesday, December 30, 2020	9,878,535.57

Atmos Energy Corporation-Kentucky
Revenue Lag Study - Daily Accts Receivable Balances for Mid-States
For the CWC Study Test Year Ended March 31, 2021

CWC WP 2-1

Line No.	Date	Total
275	Thursday, December 31, 2020	9,731,589.36
276	Friday, January 1, 2021	9,637,303.36
277	Saturday, January 2, 2021	9,543,017.36
278	Sunday, January 3, 2021	9,448,729.84
279	Monday, January 4, 2021	8,161,126.16
280	Tuesday, January 5, 2021	8,132,637.59
281	Wednesday, January 6, 2021	7,129,376.73
282	Thursday, January 7, 2021	8,474,193.27
283	Friday, January 8, 2021	9,101,680.68
284	Saturday, January 9, 2021	9,101,680.68
285	Sunday, January 10, 2021	8,902,281.05
286	Monday, January 11, 2021	8,082,384.55
287	Tuesday, January 12, 2021	8,970,752.10
288	Wednesday, January 13, 2021	10,097,703.13
289	Thursday, January 14, 2021	11,057,416.85
290	Friday, January 15, 2021	11,969,465.11
291	Saturday, January 16, 2021	11,969,465.11
292	Sunday, January 17, 2021	11,767,969.24
293	Monday, January 18, 2021	11,285,232.91
294	Tuesday, January 19, 2021	12,317,653.39
295	Wednesday, January 20, 2021	14,924,286.94
296	Thursday, January 21, 2021	15,326,109.21
297	Friday, January 22, 2021	16,133,929.67
298	Saturday, January 23, 2021	16,133,929.67
299	Sunday, January 24, 2021	15,899,135.87
300	Monday, January 25, 2021	15,043,036.21
301	Tuesday, January 26, 2021	15,401,671.52
302	Wednesday, January 27, 2021	15,480,915.62
303	Thursday, January 28, 2021	15,077,879.64
304	Friday, January 29, 2021	14,553,179.55
305	Saturday, January 30, 2021	14,432,543.04
306	Sunday, January 31, 2021	14,324,283.63
307	Monday, February 1, 2021	13,465,085.41
308	Tuesday, February 2, 2021	12,409,685.91
309	Wednesday, February 3, 2021	12,361,288.82
310	Thursday, February 4, 2021	13,035,785.74
311	Friday, February 5, 2021	13,477,976.86
312	Saturday, February 6, 2021	13,376,685.26
313	Sunday, February 7, 2021	13,291,108.31
314	Monday, February 8, 2021	12,577,406.32
315	Tuesday, February 9, 2021	12,189,532.35
316	Wednesday, February 10, 2021	12,585,978.27
317	Thursday, February 11, 2021	12,799,937.20
318	Friday, February 12, 2021	15,280,347.81
319	Saturday, February 13, 2021	14,344,361.50
320	Sunday, February 14, 2021	14,248,488.23
321	Monday, February 15, 2021	15,170,636.22
322	Tuesday, February 16, 2021	14,060,878.82
323	Wednesday, February 17, 2021	15,012,127.03
324	Thursday, February 18, 2021	15,717,451.84
325	Friday, February 19, 2021	16,411,050.45
326	Saturday, February 20, 2021	16,306,303.47
327	Sunday, February 21, 2021	16,210,647.92
328	Monday, February 22, 2021	16,398,821.89
329	Tuesday, February 23, 2021	16,222,513.56

Atmos Energy Corporation-Kentucky
Revenue Lag Study - Daily Accts Receivable Balances for Mid-States
For the CWC Study Test Year Ended March 31, 2021

CWC WP 2-1

Line No.	Date	Total	
330	Wednesday, February 24, 2021	16,591,229.88	
331	Thursday, February 25, 2021	16,064,854.69	
332	Friday, February 26, 2021	15,585,456.60	
333	Saturday, February 27, 2021	15,450,200.33	
334	Sunday, February 28, 2021	15,283,258.74	
335	Monday, March 1, 2021	14,762,107.01	
336	Tuesday, March 2, 2021	13,903,177.82	
337	Wednesday, March 3, 2021	13,703,230.39	
338	Thursday, March 4, 2021	13,729,108.01	
339	Friday, March 5, 2021	13,859,667.66	
340	Saturday, March 6, 2021	13,780,902.27	
341	Sunday, March 7, 2021	13,698,798.91	
342	Monday, March 8, 2021	12,945,142.79	
343	Tuesday, March 9, 2021	12,040,479.92	
344	Wednesday, March 10, 2021	11,179,945.26	
345	Thursday, March 11, 2021	11,535,625.34	
346	Friday, March 12, 2021	12,309,359.70	
347	Saturday, March 13, 2021	12,200,676.79	
348	Sunday, March 14, 2021	12,108,524.19	
349	Monday, March 15, 2021	11,436,395.55	
350	Tuesday, March 16, 2021	11,108,099.36	
351	Wednesday, March 17, 2021	11,518,400.98	
352	Thursday, March 18, 2021	11,958,408.76	
353	Friday, March 19, 2021	12,146,664.79	
354	Saturday, March 20, 2021	12,068,902.19	
355	Sunday, March 21, 2021	11,959,690.05	
356	Monday, March 22, 2021	11,388,268.51	
357	Tuesday, March 23, 2021	12,920,914.37	
358	Wednesday, March 24, 2021	12,907,872.12	
359	Thursday, March 25, 2021	12,911,613.06	
360	Friday, March 26, 2021	12,607,759.10	
361	Saturday, March 27, 2021	12,541,532.98	
362	Sunday, March 28, 2021	12,393,528.57	
363	Monday, March 29, 2021	11,169,338.26	
364	Tuesday, March 30, 2021	9,879,119.77	
365	Wednesday, March 31, 2021	8,848,312.42	
366			
367	AVERAGE DAILY TOTALS	7,418,295.04	
368			
369	KENTUCKY ANNUAL BILLED REVENUE	156,421,195.00	From WP 2-2
370	KENTUCKY AVERAGE DAILY REVENUE	428,551.22	
371			
372	REVENUE LAG	17.31	

CWC WP 2-2

Atmos Energy Corporation-Kentucky

Revenue Lag Study - Division 009 Kentucky Monthly Revenues
For the CWC Study Test Year Ended March 31, 2021

Account	Description	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Total
4800	Residential sales	(7,539,761)	(5,682,139)	(4,085,373)	(3,795,243)	(3,743,537)	(3,895,128)	(4,389,566)	(6,573,042)	(10,594,273)	(14,202,977)	(14,243,829)	(12,321,346)	(91,066,215)
4811	Commercial Revenue	(2,955,873)	(1,990,399)	(1,553,177)	(1,536,866)	(1,505,954)	(1,794,458)	(2,081,081)	(2,653,756)	(4,254,595)	(6,033,920)	(6,098,779)	(5,209,682)	(37,668,539)
4812	Industrial Revenue	(488,765)	(227,793)	(148,144)	(134,036)	(148,274)	(448,258)	(170,312)	(286,330)	(503,033)	(691,280)	(786,976)	(540,118)	(4,573,319)
4820	Other Sales to Public Authority	(487,968)	(323,211)	(214,705)	(172,415)	(174,415)	(189,136)	(226,899)	(378,743)	(687,579)	(957,388)	(981,313)	(877,681)	(5,671,453)
4870	Forfeited discounts	140	42	9	7	22	2	7	(18)	97	29	2	11	351
4880	Miscellaneous service revenues	(25,716)	(22,714)	(22,154)	(24,635)	(21,821)	(25,602)	(21,842)	(14,779)	(17,743)	(13,260)	(12,790)	(11,209)	(234,265)
4893	Revenue-Transportation Distrib	(1,220,981)	(1,171,340)	(1,164,146)	(1,076,154)	(1,301,164)	(1,347,395)	(1,507,384)	(1,497,651)	(1,770,467)	(1,839,285)	(1,731,579)	(1,580,211)	(17,207,756)
4895	Revenue-Transportation Commerc	-	-	-	-	-	-	-	-	-	-	-	-	-
4896	Revenue-Transportation Industr	-	-	-	-	-	-	-	-	-	-	-	-	-
4930	Rent from Gas Property	-	-	-	-	-	-	-	-	-	-	-	-	-
4950	Other gas revenues	-	-	-	-	-	-	-	-	-	-	-	-	-
Billed Revenue		**(12,718,924)**	**(9,417,554)**	**(7,187,690)**	**(6,739,342)**	**(6,895,143)**	**(7,699,974)**	**(8,397,076)**	**(11,404,318)**	**(17,827,594)**	**(23,738,080)**	**(23,855,264)**	**(20,540,236)**	**(156,421,195)**
	Billed Taxes													-
Billed Revenue plus Taxes		**(12,718,924)**	**(9,417,554)**	**(7,187,690)**	**(6,739,342)**	**(6,895,143)**	**(7,699,974)**	**(8,397,076)**	**(11,404,318)**	**(17,827,594)**	**(23,738,080)**	**(23,855,264)**	**(20,540,236)**	**(156,421,195)**
4805	Unbilled Residential Revenue	996,945	1,501,189	27,349	13,956	(135,138)	(92,291)	(1,161,190)	(1,605,913)	(2,388,952)	129,739	610,668	2,150,074	46,435
4815	Unbilled Comm Revenue	448,742	563,776	25,766	(20,786)	(46,812)	(27,205)	(511,613)	(468,314)	(968,927)	(221,742)	504,744	748,393	26,022
4816	Unbilled Indus Revenue	163,669	(261,693)	277,180	(6,367)	(295,405)	307,859	(6,832)	(639)	(26,558)	4,536	44,265	(31,411)	168,604
4825	Unbilled Public Authority Reve	57,841	135,962	3,619	1,552	(4,758)	(5,716)	(95,558)	(125,403)	(167,757)	(23,954)	71,882	161,074	8,784
4960	Cost of Service Reserve	-	(382,953)	(459,726)	(432,048)	(91,700)	-	-	-	-	-	-	-	(1,366,427)
Unbilled Revenue		**1,667,198**	**1,556,281**	**(125,812)**	**(443,694)**	**(573,812)**	**182,647**	**(1,775,193)**	**(2,200,270)**	**(3,552,194)**	**(111,422)**	**1,231,560**	**3,028,129**	**(1,116,583)**
Total Revenue		**(11,051,726)**	**(7,861,272)**	**(7,313,502)**	**(7,183,035)**	**(7,468,956)**	**(7,517,328)**	**(10,172,269)**	**(13,604,588)**	**(21,379,788)**	**(23,849,502)**	**(22,623,704)**	**(17,512,107)**	**(157,537,778)**

ATO-CWC3

Atmos Energy Corporation-Kentucky
Per Books Purchase Gas Cost
For the CWC Study Test Year Ended March 31, 2021

Line No.	Supplier	Production Month Start Service	Production Month Finish Service	Service Lag	Date of Invoice	Invoice Lag	Date Paid	Payment Lag	Total Lag	Amount	$ Days (h) x (i)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Antle Operating Company Inc.	03/01/20	03/31/20	15.50	04/16/20	16.00	04/20/20	4.00	35.50	$ 1,239.59	$ 44,005.45
2	Centerpoint Energy Services Inc	03/01/20	03/31/20	15.50	04/22/20	22.00	04/27/20	5.00	42.50	123,395.44	5,244,306.20
3	Centerpoint Energy Services Inc	03/01/20	03/31/20	15.50	04/23/20	23.00	04/27/20	4.00	42.50	342,296.45	14,547,599.13
4	Har Ken Agent OK	03/01/20	03/31/20	15.50	04/16/20	16.00	04/20/20	4.00	35.50	140.36	4,982.78
5	Midwestern Gas Transmission	03/01/20	03/31/20	15.50	04/14/20	14.00	04/17/20	3.00	32.50	264.29	8,589.43
6	Orbit Gas Transmission Inc	03/01/20	03/31/20	15.50	04/16/20	16.00	05/01/20	15.00	46.50	1,928.84	89,691.06
7	Tennessee Gas Pipeline Co	03/01/20	03/31/20	15.50	04/16/20	16.00	04/23/20	7.00	38.50	374,423.93	14,415,321.31
8	Texas Gas Transmission Corporation	03/01/20	03/31/20	15.50	04/15/20	15.00	04/20/20	5.00	35.50	1,757,354.35	62,386,079.43
9	Trunkline Gas Company, LLC	03/01/20	03/31/20	15.50	04/15/20	15.00	04/20/20	5.00	35.50	32,855.90	1,166,384.45
10	United Energy Trading, LLC	03/01/20	03/31/20	15.50	04/22/20	22.00	04/27/20	5.00	42.50	116,549.35	4,953,347.38
11	Antle Operating Company Inc.	04/01/20	04/30/20	15.00	05/13/20	13.00	05/19/20	6.00	34.00	865.85	29,438.90
12	Centerpoint Energy Services Inc	04/01/20	04/30/20	15.00	05/20/20	20.00	05/26/20	6.00	41.00	42,746.37	1,752,601.17
13	Centerpoint Energy Services Inc	04/01/20	04/30/20	15.00	05/22/20	22.00	05/26/20	4.00	41.00	2,266,111.33	92,910,564.53
14	Har Ken Agent OK	04/01/20	04/30/20	15.00	05/13/20	13.00	05/20/20	7.00	35.00	121.34	4,246.90
15	Midwestern Gas Transmission	04/01/20	04/30/20	15.00	05/07/20	7.00	05/18/20	11.00	33.00	248.20	8,190.60
16	Orbit Gas Transmission Inc	04/01/20	04/30/20	15.00	05/13/20	13.00	05/19/20	6.00	34.00	3,240.73	110,184.82
17	Tennessee Gas Pipeline Co	04/01/20	04/30/20	15.00	05/13/20	13.00	05/22/20	9.00	37.00	269,328.83	9,965,166.71
18	Texas Gas Transmission Corporation	04/01/20	04/30/20	15.00	05/13/20	13.00	05/21/20	8.00	36.00	1,537,917.78	55,365,040.08
19	Trunkline Gas Company, LLC	04/01/20	04/30/20	15.00	05/08/20	8.00	05/20/20	12.00	35.00	6,650.85	232,779.75
20	United Energy Trading, LLC	04/01/20	04/30/20	15.00	05/20/20	20.00	05/26/20	6.00	41.00	379,580.80	15,562,812.80
21	Antle Operating Company Inc.	05/01/20	05/31/20	15.50	06/10/20	10.00	06/24/20	14.00	39.50	1,327.00	52,416.50
22	Har Ken Agent OK	05/01/20	05/31/20	15.50	06/10/20	10.00	06/24/20	14.00	39.50	141.78	5,600.31
23	Midwestern Gas Transmission	05/01/20	05/31/20	15.50	06/12/20	12.00	08/13/20	62.00	89.50	(319.91)	(28,631.95)
24	Orbit Gas Transmission Inc	05/01/20	05/31/20	15.50	06/10/20	10.00	06/24/20	14.00	39.50	5,799.98	229,099.21
25	Symmetry Energy Solutions, LLC	05/01/20	05/31/20	15.50	06/23/20	23.00	06/25/20	2.00	40.50	2,574,090.45	104,250,663.23
26	Symmetry Energy Solutions, LLC	05/01/20	05/31/20	15.50	06/22/20	22.00	06/25/20	3.00	40.50	48,112.12	1,948,540.86
27	Tennessee Gas Pipeline Co	05/01/20	05/31/20	15.50	06/10/20	10.00	06/22/20	12.00	37.50	183,341.93	6,875,322.38
28	Texas Gas Transmission Corporation	05/01/20	05/31/20	15.50	06/16/20	16.00	06/19/20	3.00	34.50	1,249,638.83	43,112,539.64
29	Trunkline Gas Company, LLC	05/01/20	05/31/20	15.50	06/10/20	10.00	06/22/20	12.00	37.50	6,874.85	257,806.88
30	United Energy Trading, LLC	05/01/20	05/31/20	15.50	06/23/20	23.00	06/25/20	2.00	40.50	456,789.58	18,499,977.99
31	Antle Operating Company Inc.	06/01/20	06/30/20	15.00	07/10/20	10.00	07/15/20	5.00	30.00	1,396.45	41,893.50
32	Har Ken Agent OK	06/01/20	06/30/20	15.00	07/10/20	10.00	07/15/20	5.00	30.00	114.61	3,438.30
33	Midwestern Gas Transmission	06/01/20	06/30/20	15.00	07/10/20	10.00	08/13/20	34.00	59.00	(565.16)	(33,344.44)
34	Orbit Gas Transmission Inc	06/01/20	06/30/20	15.00	07/10/20	10.00	07/15/20	5.00	30.00	5,237.87	157,136.10
35	Symmetry Energy Solutions, LLC	06/01/20	06/30/20	15.00	07/22/20	22.00	07/27/20	5.00	42.00	45,614.31	1,915,801.02
36	Symmetry Energy Solutions, LLC	06/01/20	06/30/20	15.00	07/24/20	24.00	07/27/20	3.00	42.00	1,987,746.39	83,485,348.38
37	Tennessee Gas Pipeline Co	06/01/20	06/30/20	15.00	07/13/20	13.00	07/23/20	10.00	38.00	173,787.83	6,603,937.54
38	Texas Gas Transmission Corporation	06/01/20	06/30/20	15.00	07/10/20	10.00	07/20/20	10.00	35.00	1,209,327.90	42,326,476.50
39	Trunkline Gas Company, LLC	06/01/20	06/30/20	15.00	07/10/20	10.00	07/20/20	10.00	35.00	6,652.75	232,846.25
40	United Energy Trading, LLC	06/01/20	06/30/20	15.00	07/22/20	22.00	07/27/20	5.00	42.00	364,122.48	15,293,144.16
41	Antle Operating Company Inc.	07/01/20	07/31/20	15.50	08/20/20	20.00	08/26/20	6.00	41.50	1,413.07	58,642.41
42	Har Ken Agent OK	07/01/20	07/31/20	15.50	08/20/20	20.00	08/26/20	6.00	41.50	138.22	5,736.13
43	Midwestern Gas Transmission	07/01/20	07/31/20	15.50	08/11/20	11.00	08/13/20	2.00	28.50	948.50	27,032.25
44	Orbit Gas Transmission Inc	07/01/20	07/31/20	15.50	08/20/20	20.00	08/26/20	6.00	41.50	7,153.45	296,868.18
45	Symmetry Energy Solutions, LLC	07/01/20	07/31/20	15.50	08/22/20	22.00	08/25/20	3.00	40.50	1,674,023.14	67,797,937.17
46	Symmetry Energy Solutions, LLC	07/01/20	07/31/20	15.50	08/20/20	20.00	08/25/20	5.00	40.50	40,403.77	1,636,352.69
47	Tennessee Gas Pipeline Co	07/01/20	07/31/20	15.50	08/13/20	13.00	08/24/20	11.00	39.50	173,787.83	6,864,619.29
48	Texas Gas Transmission Corporation	07/01/20	07/31/20	15.50	08/12/20	12.00	08/21/20	9.00	36.50	1,249,638.83	45,611,817.30
49	Trunkline Gas Company, LLC	07/01/20	07/31/20	15.50	08/11/20	11.00	08/20/20	9.00	35.50	6,988.74	248,100.27
50	United Energy Trading, LLC	07/01/20	07/31/20	15.50	08/20/20	20.00	08/25/20	5.00	40.50	261,453.46	10,588,865.13
51	Antle Operating Company Inc.	08/01/20	08/31/20	15.50	09/14/20	14.00	09/24/20	10.00	39.50	1,709.10	67,509.45
52	Har Ken Agent OK	08/01/20	08/31/20	15.50	09/14/20	14.00	09/28/20	14.00	43.50	154.04	6,700.74
53	Midwestern Gas Transmission	08/01/20	08/31/20	15.50	09/14/20	14.00	09/18/20	4.00	33.50	(1,918.76)	(64,278.46)

Atmos Energy Corporation-Kentucky
Per Books Purchase Gas Cost
For the CWC Study Test Year Ended March 31, 2021

ATO-CWC3

Line No.	Supplier	Production Month Start Service	Production Month Finish Service	Service Lag	Date of Invoice	Invoice Lag	Date Paid	Payment Lag	Total Lag	Amount	$ Days (h) x (i)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
54	Orbit Gas Transmission Inc	08/01/20	08/31/20	15.50	09/14/20	14.00	09/24/20	10.00	39.50	7,527.18	297,323.61
55	Symmetry Energy Solutions, LLC	08/01/20	08/31/20	15.50	09/24/20	24.00	09/25/20	1.00	40.50	2,384,628.50	96,577,454.25
56	Symmetry Energy Solutions, LLC	08/01/20	08/31/20	15.50	09/22/20	22.00	09/25/20	3.00	40.50	64,856.56	2,626,690.68
57	Tennessee Gas Pipeline Co	08/01/20	08/31/20	15.50	09/16/20	16.00	09/21/20	5.00	36.50	173,787.83	6,343,255.80
58	Texas Gas Transmission Corporation	08/01/20	08/31/20	15.50	09/14/20	14.00	09/21/20	7.00	36.50	1,249,638.83	45,611,817.30
59	Trunkline Gas Company, LLC	08/01/20	08/31/20	15.50	09/14/20	14.00	09/21/20	7.00	36.50	7,111.46	259,568.29
60	United Energy Trading, LLC	08/01/20	08/31/20	15.50	09/22/20	22.00	09/25/20	3.00	40.50	356,875.40	14,453,453.70
61	Antle Operating Company Inc.	09/01/20	09/30/20	15.00	10/21/20	21.00	10/23/20	2.00	38.00	1,948.91	74,058.58
62	Har Ken Agent OK	09/01/20	09/30/20	15.00	10/21/20	21.00	10/26/20	5.00	41.00	161.07	6,603.87
63	Midwestern Gas Transmission	09/01/20	09/30/20	15.00	10/13/20	13.00	10/16/20	3.00	31.00	(1,253.61)	(38,861.91)
64	Orbit Gas Transmission Inc	09/01/20	09/30/20	15.00	10/21/20	21.00	10/23/20	2.00	38.00	8,245.17	313,316.46
65	Symmetry Energy Solutions, LLC	09/01/20	09/30/20	15.00	10/23/20	23.00	10/26/20	3.00	41.00	3,157,938.54	129,475,480.14
66	Symmetry Energy Solutions, LLC	09/01/20	09/30/20	15.00	10/21/20	21.00	10/26/20	5.00	41.00	70,129.10	2,875,293.10
67	Tennessee Gas Pipeline Co	09/01/20	09/30/20	15.00	10/14/20	14.00	10/22/20	8.00	37.00	173,787.83	6,430,149.71
68	Texas Gas Transmission Corporation	09/01/20	09/30/20	15.00	10/14/20	14.00	10/19/20	5.00	34.00	1,209,327.90	41,117,148.60
69	Trunkline Gas Company, LLC	09/01/20	09/30/20	15.00	10/14/20	14.00	10/20/20	6.00	35.00	6,655.34	232,936.90
70	United Energy Trading, LLC	09/01/20	09/30/20	15.00	10/22/20	22.00	10/26/20	4.00	41.00	547,815.43	22,460,432.63
71	Antle Operating Company Inc.	10/01/20	10/31/20	15.50	11/18/20	18.00	11/24/20	6.00	39.50	1,385.88	54,742.26
72	Har Ken Agent OK	10/01/20	10/31/20	15.50	11/19/20	19.00	11/25/20	6.00	40.50	5.52	223.56
73	Midwestern Gas Transmission	10/01/20	10/31/20	15.50	11/13/20	13.00	11/17/20	4.00	32.50	1,361.65	44,253.63
74	Orbit Gas Transmission Inc	10/01/20	10/31/20	15.50	11/18/20	18.00	11/24/20	6.00	39.50	4,526.99	178,816.11
75	Symmetry Energy Solutions, LLC	10/01/20	10/31/20	15.50	11/23/20	23.00	11/25/20	2.00	40.50	56,255.65	2,278,353.83
76	Symmetry Energy Solutions, LLC	10/01/20	10/31/20	15.50	11/23/20	23.00	11/25/20	2.00	40.50	3,353,437.91	135,814,235.36
77	Tennessee Gas Pipeline Co	10/01/20	10/31/20	15.50	11/12/20	12.00	11/23/20	11.00	38.50	192,896.03	7,426,497.16
78	Texas Gas Transmission Corporation	10/01/20	10/31/20	15.50	11/12/20	12.00	11/20/20	8.00	35.50	1,640,658.26	58,243,368.23
79	Trunkline Gas Company, LLC	10/01/20	10/31/20	15.50	11/13/20	13.00	11/20/20	7.00	35.50	6,877.16	244,139.18
80	United Energy Trading, LLC	10/01/20	10/31/20	15.50	11/23/20	23.00	11/25/20	2.00	40.50	540,810.98	21,902,844.69
81	Antle Operating Company Inc.	11/01/20	11/30/20	15.00	12/16/20	16.00	12/18/20	2.00	33.00	2,201.80	72,659.40
82	Midwestern Gas Transmission	11/01/20	11/30/20	15.00	12/15/20	15.00	12/17/20	2.00	32.00	(781.61)	(25,011.52)
83	Orbit Gas Transmission Inc	11/01/20	11/30/20	15.00	12/16/20	16.00	12/18/20	2.00	33.00	4,396.75	145,092.75
84	Symmetry Energy Solutions, LLC	11/01/20	11/30/20	15.00	12/19/20	19.00	12/28/20	9.00	43.00	777,867.91	33,448,320.13
85	Symmetry Energy Solutions, LLC	11/01/20	11/30/20	15.00	12/19/20	19.00	12/28/20	9.00	43.00	267,759.90	11,513,675.70
86	Tennessee Gas Pipeline Co	11/01/20	11/30/20	15.00	12/11/20	11.00	12/21/20	10.00	36.00	369,223.65	13,292,051.40
87	Texas Gas Transmission Corporation	11/01/20	11/30/20	15.00	12/10/20	10.00	12/21/20	11.00	36.00	1,691,401.50	60,890,454.00
88	Trunkline Gas Company, LLC	11/01/20	11/30/20	15.00	12/15/20	15.00	12/21/20	6.00	36.00	32,447.20	1,168,099.20
89	United Energy Trading, LLC	11/01/20	11/30/20	15.00	12/19/20	19.00	12/28/20	9.00	43.00	104,781.66	4,505,611.38
90	Antle Operating Company Inc.	12/01/20	12/31/20	15.50	01/29/21	29.00	01/29/21	-	44.50	729.73	32,472.99
91	Midwestern Gas Transmission	12/01/20	12/31/20	15.50	01/11/21	11.00	01/14/21	3.00	29.50	(955.30)	(28,181.35)
92	Orbit Gas Transmission Inc	12/01/20	12/31/20	15.50	01/13/21	13.00	01/22/21	9.00	37.50	496.41	18,615.38
93	Symmetry Energy Solutions, LLC	12/01/20	12/31/20	15.50	01/21/21	21.00	01/25/21	4.00	40.50	2,970,779.18	120,316,556.79
94	Symmetry Energy Solutions, LLC	12/01/20	12/31/20	15.50	01/21/21	21.00	01/25/21	4.00	40.50	222,259.03	9,001,490.72
95	Tennessee Gas Pipeline Co	12/01/20	12/31/20	15.50	01/13/21	13.00	01/25/21	12.00	40.50	378,592.55	15,332,998.28
96	Texas Gas Transmission Corporation	12/01/20	12/31/20	15.50	01/12/21	12.00	01/22/21	10.00	37.50	1,747,781.55	65,541,808.13
97	Trunkline Gas Company, LLC	12/01/20	12/31/20	15.50	01/11/21	11.00	01/20/21	9.00	35.50	33,022.98	1,172,315.79
98	United Energy Trading, LLC	12/01/20	12/31/20	15.50	01/21/21	21.00	01/25/21	4.00	40.50	406,786.90	16,474,869.45
99	Antle Operating Company Inc.	01/01/21	01/31/21	15.50	02/16/21	16.00	02/18/21	2.00	33.50	2,244.86	75,202.81
100	Midwestern Gas Transmission	01/01/21	01/31/21	15.50	02/09/21	9.00	02/10/21	1.00	25.50	(359.76)	(9,173.88)
101	Orbit Gas Transmission Inc	01/01/21	01/31/21	15.50	02/16/21	16.00	02/18/21	2.00	33.50	394.62	13,219.77
102	Symmetry Energy Solutions, LLC	01/01/21	01/31/21	15.50	02/23/21	23.00	02/25/21	2.00	40.50	2,757,594.02	111,682,557.81
103	Symmetry Energy Solutions, LLC	01/01/21	01/31/21	15.50	02/23/21	23.00	02/25/21	2.00	40.50	189,505.65	7,674,978.83
104	Tennessee Gas Pipeline Co	01/01/21	01/31/21	15.50	02/11/21	11.00	02/22/21	11.00	37.50	378,592.55	14,197,220.63
105	Texas Gas Transmission Corporation	01/01/21	01/31/21	15.50	02/11/21	11.00	02/19/21	8.00	34.50	1,747,781.55	60,298,463.48
106	Trunkline Gas Company, LLC	01/01/21	01/31/21	15.50	02/16/21	16.00	02/22/21	6.00	37.50	33,961.83	1,273,568.63
107	United Energy Trading, LLC	01/01/21	01/31/21	15.50	02/23/21	23.00	02/25/21	2.00	40.50	363,593.79	14,725,548.50

ATO-CWC3

Atmos Energy Corporation-Kentucky
Per Books Purchase Gas Cost
For the CWC Study Test Year Ended March 31, 2021

Line No.	Supplier (a)	Production Month Start Service (b)	Production Month Finish Service (c)	Service Lag (d)	Date of Invoice (e)	Invoice Lag (f)	Date Paid (g)	Payment Lag (h)	Total Lag (i)	Amount (j)	$ Days (h) x (i) (k)
108	Antle Operating Company Inc.	02/01/21	02/28/21	14.00	03/17/21	17.00	03/18/21	1.00	32.00	3,098.75	99,160.00
109	Midwestern Gas Transmission	02/01/21	02/28/21	14.00	03/10/21	10.00	03/15/21	5.00	29.00	5,812.01	168,548.29
110	Orbit Gas Transmission Inc	02/01/21	02/28/21	14.00	03/17/21	17.00	03/18/21	1.00	32.00	1,698.27	54,344.64
111	Symmetry Energy Solutions, LLC	02/01/21	02/28/21	14.00	03/24/21	24.00	03/25/21	1.00	39.00	4,639,691.29	180,947,960.31
112	Symmetry Energy Solutions, LLC	02/01/21	02/28/21	14.00	03/23/21	23.00	03/25/21	2.00	39.00	499,067.83	19,463,645.37
113	Tennessee Gas Pipeline Co	02/01/21	02/28/21	14.00	03/11/21	11.00	03/22/21	11.00	36.00	378,592.55	13,629,331.80
114	Texas Gas Transmission Corporation	02/01/21	02/28/21	14.00	03/11/21	11.00	03/19/21	8.00	33.00	1,578,641.40	52,095,166.20
115	Trunkline Gas Company, LLC	02/01/21	02/28/21	14.00	03/17/21	17.00	03/22/21	5.00	36.00	29,235.86	1,052,490.96
116	United Energy Trading, LLC	02/01/21	02/28/21	14.00	03/24/21	24.00	03/25/21	1.00	39.00	850,698.50	33,177,241.50
124											
125										$56,678,421.00	$ 2,195,974,218.00
126											
127											38.74
											To Schedule 1, Line 3

Atmos Energy Corporation-Kentucky
Payroll Lead Days
For the CWC Study Test Year Ended March 31, 2021

ATO-CWC4

Line No.		Start Morning of 1st day of Pay Period (a)	End Evening of Last Day of Pay Period (b)	No. of Days (c)	Service Lag (d)	Date Paid (e)	Payment Lag (f)	Total Direct Payroll Lag (g)
1		03/21/20	04/03/20	14.00	7.00	04/10/20	7.00	14.00
2		04/04/20	04/17/20	14.00	7.00	04/24/20	7.00	14.00
3		04/18/20	05/01/20	14.00	7.00	05/08/20	7.00	14.00
4		05/02/20	05/15/20	14.00	7.00	05/22/20	7.00	14.00
5		05/16/20	05/29/20	14.00	7.00	06/05/20	7.00	14.00
6		05/30/20	06/12/20	14.00	7.00	06/19/20	7.00	14.00
7		06/13/20	06/26/20	14.00	7.00	07/03/20	7.00	14.00
8		06/27/20	07/10/20	14.00	7.00	07/17/20	7.00	14.00
9		07/11/20	07/24/20	14.00	7.00	07/31/20	7.00	14.00
10		07/25/20	08/07/20	14.00	7.00	08/14/20	7.00	14.00
11		08/08/20	08/21/20	14.00	7.00	08/28/20	7.00	14.00
12		08/22/20	09/04/20	14.00	7.00	09/11/20	7.00	14.00
13		09/05/20	09/18/20	14.00	7.00	09/25/20	7.00	14.00
14		09/19/20	10/02/20	14.00	7.00	10/09/20	7.00	14.00
15		10/03/20	10/16/20	14.00	7.00	10/23/20	7.00	14.00
16		10/17/20	10/30/20	14.00	7.00	11/06/20	7.00	14.00
17		10/31/20	11/13/20	14.00	7.00	11/20/20	7.00	14.00
18		11/14/20	11/27/20	14.00	7.00	12/04/20	7.00	14.00
19		11/28/20	12/11/20	14.00	7.00	12/18/20	7.00	14.00
20		12/12/20	12/25/20	14.00	7.00	12/31/20	6.00	13.00
21		12/26/20	01/08/21	14.00	7.00	01/15/21	7.00	14.00
22		01/09/21	01/22/21	14.00	7.00	01/29/21	7.00	14.00
23		01/23/21	02/05/21	14.00	7.00	02/12/21	7.00	14.00
24		02/06/21	02/19/21	14.00	7.00	02/26/21	7.00	14.00
25		02/20/21	03/05/21	14.00	7.00	03/12/21	7.00	14.00
26		03/06/21	03/19/21	14.00	7.00	03/26/21	7.00	14.00
27		03/20/21	04/02/21	14.00	7.00	04/09/21	7.00	14.00
28								
29	TOTAL PAYROLL DIRECT DEPOSIT WEIGHTED AVG EXPENSE LAG							14.00

30					
31	ACTUAL CHECKS WRITTEN:				
32		Date		Clearing	Payroll Checks
33		Paid	# of Days	from Pd Dt	Weighted Avg
34		(e)	(h)	(i)	
35	Same day	06/05/20	0	0.00%	0.00
36	Next day	06/08/20	3	5.26%	0.16
37	2 days	06/09/20	4	31.58%	1.26
38	3-7 days	6/10/20-6/14/20	9	36.84%	3.32
39	8-14 days	6/15/2020-6/21/20	16	10.53%	1.68
40	> 2 weeks	06/22/20	23	15.79%	3.63
41					
42	Total Payroll Check Lag				10.05
43					
44	% of Payroll Checks				0.82%
45					
46	WEIGHTED AVERAGE OF ACTUAL PAYROLL CHECKS				0.08
47					
48	TOTAL PAYROLL LAG				14.08
49					
50	Period: 05/16/20 to 05/29/20 Paydate 06/5/2020				

ATO-CWC5

Atmos Energy Corporation-Kentucky
Other O&M Payment Lag
For the CWC Study Test Year Ended March 31, 2021

Line No.	Description	Weighted $ Days
	a	*b*
1	Other O&M Payment Lag Days:	25.53
2		
3	Check Clearing Lag Days:	2.53
4		
5	Total O&M Payment Lag Days:	28.06

Exhibit JTC-4 Lead Lag Study

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

CWC WP 5-1

Line No.	Vendor	Invoice Date	Invoice Amount	Division 009 Amount	Payment Type	Service Period		Midpoint Service Service	Date Paid	Payment lag	Weighted Payment Lag	Date Cleared	Clearing Lag	Weighted Clearing Lag
						From	To							
	a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	= i -(h or b	*k = (j * d)*	*l*	*m = (l - i)*	*n = (m * d)*
1	ACTION PEST CONTROL INC	5-Oct-20	74	74	CHECK	5-Oct-20	5-Oct-20	5-Oct-20	2-Nov-20	28	2,072	9-Nov-20	7	518
2	AIRGAS USA LLC	29-May-19	45	45	CHECK	29-May-20	29-May-20	29-May-20	18-May-20	(11)	(492)	26-May-20	8	358
3	AIRGAS USA LLC	14-May-20	512	512	Direct Deposit	14-May-20	14-May-20	14-May-20	8-Jun-20	25	12,800	8-Jun-20	0	-
4	AIRGAS USA LLC	31-May-20	28	28	Direct Deposit	1-May-20	31-May-20	16-May-20	25-Jun-20	40	1,104	25-Jun-20	0	-
5	AIRGAS USA LLC	29-Jun-20	2,025	2,025	CHECK	29-Jun-20	29-Jun-20	29-Jun-20	27-Jul-20	28	56,689	3-Aug-20	7	14,172
6	AIRGAS USA LLC	30-Nov-20	51	51	Direct Deposit	1-Nov-20	30-Nov-20	15-Nov-20	28-Dec-20	43	2,184	28-Dec-20	0	-
7	AIRGAS USA LLC	3-Dec-20	104	104	Direct Deposit	3-Dec-20	3-Dec-20	3-Dec-20	28-Dec-20	25	2,589	28-Dec-20	0	-
8	ALLIANCE CONSULTING GROUP	31-Mar-20	796	796	Direct Deposit	1-Mar-20	31-Mar-20	16-Mar-20	29-Apr-20	44	35,006	29-Apr-20	0	-
9	AMBERS FACILITY MAINTENANCE	23-Mar-20	83	83	CHECK	23-Mar-20	23-Mar-20	23-Mar-20	20-Apr-20	28	2,337	1-May-20	11	918
10	AMBERS FACILITY MAINTENANCE	1-May-20	318	318	CHECK	1-Apr-20	30-Apr-20	15-Apr-20	27-May-20	42	13,356	8-Jun-20	12	3,816
11	AMBERS FACILITY MAINTENANCE	30-May-20	69	69	CHECK	30-May-20	30-May-20	30-May-20	24-Jun-20	25	1,723	8-Jul-20	14	965
12	AMBERS FACILITY MAINTENANCE	10-Jun-20	122	122	CHECK	10-Jun-20	10-Jun-20	10-Jun-20	6-Jul-20	26	3,169	17-Jul-20	11	1,341
13	AMBERS FACILITY MAINTENANCE	12-Jun-20	101	101	CHECK	12-Jun-20	12-Jun-20	12-Jun-20	8-Jul-20	26	2,624	4-Aug-20	27	2,725
14	AMBERS FACILITY MAINTENANCE	24-Jun-20	122	122	CHECK	24-Jun-20	24-Jun-20	24-Jun-20	20-Jul-20	26	3,169	3-Aug-20	14	1,707
15	AMBERS FACILITY MAINTENANCE	1-Jul-20	919	919	CHECK	1-Jun-20	30-Jun-20	15-Jun-20	27-Jul-20	42	38,599	28-Aug-20	32	29,409
16	AMBERS FACILITY MAINTENANCE	31-Oct-20	34	34	CHECK	31-Oct-20	31-Oct-20	31-Oct-20	25-Nov-20	25	859	8-Dec-20	13	446
17	AMBERS FACILITY MAINTENANCE	1-Mar-21	919	919	CHECK	1-Feb-21	28-Feb-21	14-Feb-21	29-Mar-21	43	39,518	13-Apr-21	15	13,785
18	ARKEMA INC	26-May-20	3,906	4,140	Direct Deposit	26-May-20	26-May-20	26-May-20	22-Jun-20	27	111,793	22-Jun-20	0	-
19	ARKEMA INC	11-Jan-21	1,845	1,955	Direct Deposit	11-Jan-21	11-Jan-21	11-Jan-21	5-Feb-21	25	48,885	5-Feb-21	0	-
20	AT&T	28-Apr-20	383	383	CHECK	25-Mar-20	25-Mar-20	25-Mar-20	4-May-20	40	15,320	13-May-20	9	3,447
21	AT&T	1-Sep-20	156	70	CHECK	1-Aug-20	1-Sep-20	16-Aug-20	14-Sep-20	29	2,030	23-Sep-20	9	630
22	AT&T	1-Dec-20	302	302	CHECK	1-Nov-20	1-Dec-20	16-Nov-20	16-Dec-20	30	9,071	24-Dec-20	8	2,419
23	AT&T	1-Jan-21	121,520	5,725	CHECK	1-Dec-20	1-Jan-21	16-Dec-20	18-Jan-21	33	188,914	25-Jan-21	7	40,073
24	AT&T	1-Mar-21	306	306	CHECK	1-Feb-21	1-Mar-21	15-Feb-21	17-Mar-21	30	9,191	23-Mar-21	6	1,838
25	AT&T MOBILITY	12-Apr-20	39,491	50	CHECK	12-Mar-20	12-Apr-20	27-Mar-20	4-May-20	38	1,917	15-May-20	11	555
26	AT&T MOBILITY	12-May-20	7,680	4,510	CHECK	12-Apr-20	12-May-20	27-Apr-20	1-Jun-20	35	157,835	12-Jun-20	11	49,605
27	AT&T MOBILITY	12-Jun-20	423	5,248	CHECK	12-May-20	12-Jun-20	27-May-20	1-Jul-20	35	183,673	14-Jul-20	13	68,221
28	ATMOS ENERGY CORPORATION	10-Jun-20	56	56	Direct Deposit	10-May-20	9-Jun-20	25-May-20	18-Jun-20	24	1,349	18-Jun-20	0	-
29	ATMOS ENERGY CORPORATION	10-Aug-20	2	2	Direct Deposit	10-Jul-20	9-Aug-20	25-Jul-20	12-Aug-20	18	33	12-Aug-20	0	-
30	ATMOS ENERGY CORPORATION	9-Oct-20	12	12	Direct Deposit	9-Sep-20	8-Oct-20	23-Sep-20	15-Oct-20	22	257	15-Oct-20	0	-
31	ATMOS ENERGY CORPORATION	10-Dec-20	7	7	Direct Deposit	10-Nov-20	9-Dec-20	24-Nov-20	17-Dec-20	23	167	17-Dec-20	0	-
32	ATMOS ENERGY CORPORATION	8-Jan-21	41	41	Direct Deposit	8-Dec-20	7-Jan-21	23-Dec-20	14-Jan-21	22	902	14-Jan-21	0	-
33	ATMOS ENERGY CORPORATION	8-Jan-21	126	126	Direct Deposit	8-Dec-20	7-Jan-21	23-Dec-20	14-Jan-21	22	2,780	14-Jan-21	0	-
34	ATMOS ENERGY CORPORATION	10-Feb-21	130	130	Direct Deposit	10-Jan-21	9-Feb-21	25-Jan-21	22-Feb-21	28	3,646	22-Feb-21	0	-
35	ATMOS ENERGY CORPORATION	10-Mar-21	218	218	Direct Deposit	10-Feb-21	9-Mar-21	23-Feb-21	15-Mar-21	20	4,361	15-Mar-21	0	-
36	AUTOMOTIVE RESOURCES INTERNATI	8-Sep-20	2,059,700	108,251	Direct Deposit	1-Aug-20	31-Aug-20	16-Aug-20	10-Sep-20	25	2,706,286	10-Sep-20	0	-
37	AUTOMOTIVE RESOURCES INTERNATI	5-Oct-20	2,278,632	164,215	Direct Deposit	1-Sep-20	30-Sep-20	15-Sep-20	6-Oct-20	21	3,448,514	6-Oct-20	0	-
38	B GREEN LAWN CARE	15-Jun-20	41	41	CHECK	15-Jun-20	15-Jun-20	15-Jun-20	29-Jun-20	14	571	14-Jul-20	15	612
39	BANK OF AMERICA	16-Apr-20	269	269	EFT	20-Mar-20	25-Mar-20	22-Mar-20	30-Apr-20	39	10,500	30-Apr-20	0	-
40	BANK OF AMERICA	16-Apr-20	10	10	EFT	24-Mar-20	24-Mar-20	24-Mar-20	30-Apr-20	37	370	30-Apr-20	0	-
41	BANK OF AMERICA	16-Apr-20	131	131	EFT	31-Mar-20	31-Mar-20	31-Mar-20	30-Apr-20	30	3,934	30-Apr-20	0	-
42	BANK OF AMERICA	16-Apr-20	92	92	EFT	27-Mar-20	27-Mar-20	27-Mar-20	30-Apr-20	34	3,113	30-Apr-20	0	-
43	BANK OF AMERICA	16-Apr-20	2,493	2,493	EFT	1-Apr-20	2-Apr-20	1-Apr-20	30-Apr-20	29	72,300	30-Apr-20	0	-
44	BANK OF AMERICA	16-Apr-20	183	183	EFT	17-Mar-20	9-Apr-20	28-Mar-20	30-Apr-20	33	6,030	30-Apr-20	0	-
45	BANK OF AMERICA	16-Apr-20	656	656	EFT	18-Mar-20	15-Apr-20	1-Apr-20	30-Apr-20	29	19,034	30-Apr-20	0	-
46	BANK OF AMERICA	16-May-20	150	150	EFT	28-Apr-20	28-Apr-20	28-Apr-20	29-May-20	31	4,650	29-May-20	0	-
47	BANK OF AMERICA	16-May-20	30	30	EFT	28-Apr-20	14-May-20	6-May-20	29-May-20	23	682	29-May-20	0	-
48	BANK OF AMERICA	16-May-20	252	74	EFT	17-Apr-20	7-May-20	27-Apr-20	29-May-20	32	2,374	29-May-20	0	-
49	BANK OF AMERICA	16-May-20	30	30	EFT	7-May-20	7-May-20	7-May-20	29-May-20	22	667	29-May-20	0	-
50	BANK OF AMERICA	16-May-20	183	183	EFT	29-Apr-20	8-May-20	3-May-20	29-May-20	26	4,748	29-May-20	0	-
51	BANK OF AMERICA	16-May-20	91	51	EFT	15-Apr-20	4-May-20	24-Apr-20	29-May-20	35	1,778	29-May-20	0	-
52	BANK OF AMERICA	16-May-20	78	78	EFT	20-Apr-20	8-May-20	29-Apr-20	29-May-20	30	2,342	29-May-20	0	-
53	BANK OF AMERICA	16-May-20	274	195	EFT	17-Apr-20	13-May-20	30-Apr-20	29-May-20	29	5,643	29-May-20	0	-

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

Line No.	Vendor	Invoice Date	Invoice Amount	Division 009 Amount	Payment Type	Service Period From	Service Period To	Midpoint Service Service	Date Paid	Payment lag	Weighted Payment Lag	Date Cleared	Clearing Lag	Weighted Clearing Lag
54	BANK OF AMERICA	16-May-20	32	32	EFT	10-May-20	10-May-20	10-May-20	29-May-20	19	604	29-May-20	0	-
55	BANK OF AMERICA	16-May-20	217	74	EFT	16-Apr-20	13-May-20	29-Apr-20	29-May-20	30	2,226	29-May-20	0	-
56	BANK OF AMERICA	16-Jun-20	60	60	EFT	2-Jun-20	5-Jun-20	3-Jun-20	30-Jun-20	27	1,630	30-Jun-20	0	-
57	BANK OF AMERICA	16-Jun-20	110	110	EFT	9-Jun-20	9-Jun-20	9-Jun-20	30-Jun-20	21	2,312	30-Jun-20	0	-
58	BANK OF AMERICA	16-Jun-20	190	190	EFT	19-May-20	6-Jun-20	28-May-20	30-Jun-20	33	6,278	30-Jun-20	0	-
59	BANK OF AMERICA	16-Jun-20	22	22	EFT	11-Jun-20	11-Jun-20	11-Jun-20	30-Jun-20	19	413	30-Jun-20	0	-
60	BANK OF AMERICA	16-Jun-20	137	137	EFT	14-May-20	28-May-20	21-May-20	30-Jun-20	40	5,476	30-Jun-20	0	-
61	BANK OF AMERICA	16-Jun-20	156	156	EFT	14-May-20	9-Jun-20	27-May-20	30-Jun-20	34	5,300	30-Jun-20	0	-
62	BANK OF AMERICA	16-Jun-20	235	235	EFT	8-Jun-20	14-Jun-20	11-Jun-20	30-Jun-20	19	4,468	30-Jun-20	0	-
63	BANK OF AMERICA	16-Jun-20	59	59	EFT	10-Jun-20	10-Jun-20	10-Jun-20	30-Jun-20	20	1,188	30-Jun-20	0	-
64	BANK OF AMERICA	16-Jun-20	262	262	EFT	15-May-20	4-Jun-20	25-May-20	30-Jun-20	36	9,431	30-Jun-20	0	-
65	BANK OF AMERICA	16-Jun-20	88	13	EFT	18-May-20	26-May-20	22-May-20	30-Jun-20	39	496	30-Jun-20	0	-
66	BANK OF AMERICA	16-Jul-20	21	21	EFT	9-Jul-20	9-Jul-20	9-Jul-20	31-Jul-20	22	466	31-Jul-20	0	-
67	BANK OF AMERICA	16-Jul-20	273	273	EFT	28-Jun-20	7-Jul-20	2-Jul-20	31-Jul-20	29	7,911	31-Jul-20	0	-
68	BANK OF AMERICA	16-Jul-20	830	777	EFT	15-Jun-20	16-Jul-20	30-Jun-20	31-Jul-20	31	24,098	31-Jul-20	0	-
69	BANK OF AMERICA	16-Jul-20	49	27	EFT	9-Jul-20	15-Jul-20	12-Jul-20	31-Jul-20	19	522	31-Jul-20	0	-
70	BANK OF AMERICA	16-Jul-20	634	634	EFT	30-Jun-20	6-Jul-20	3-Jul-20	31-Jul-20	28	17,763	31-Jul-20	0	-
71	BANK OF AMERICA	16-Jul-20	16	16	EFT	25-Jun-20	25-Jun-20	25-Jun-20	31-Jul-20	36	568	31-Jul-20	0	-
72	BANK OF AMERICA	16-Jul-20	539	463	EFT	22-Apr-20	7-Jul-20	30-May-20	31-Jul-20	62	28,718	31-Jul-20	0	-
73	BANK OF AMERICA	16-Jul-20	416	326	EFT	16-Jun-20	31-Jul-20	8-Jul-20	31-Jul-20	23	7,501	31-Jul-20	0	-
74	BANK OF AMERICA	16-Jul-20	434	409	EFT	16-Jun-20	13-Jul-20	29-Jun-20	31-Jul-20	32	13,084	31-Jul-20	0	-
75	BANK OF AMERICA	16-Jul-20	86	86	EFT	23-Jun-20	26-Jun-20	24-Jun-20	31-Jul-20	37	3,175	31-Jul-20	0	-
76	BANK OF AMERICA	16-Jul-20	196	196	EFT	16-Jun-20	25-Jun-20	20-Jun-20	31-Jul-20	41	8,031	31-Jul-20	0	-
77	BANK OF AMERICA	16-Jul-20	379	379	EFT	23-Jun-20	15-Jul-20	4-Jul-20	31-Jul-20	27	10,244	31-Jul-20	0	-
78	BANK OF AMERICA	16-Jul-20	414	414	EFT	7-Jul-20	14-Jul-20	10-Jul-20	31-Jul-20	21	8,687	31-Jul-20	0	-
79	BANK OF AMERICA	16-Aug-20	2,232	1,830	EFT	16-Jul-20	11-Aug-20	29-Jul-20	31-Aug-20	33	60,387	31-Aug-20	0	-
80	BANK OF AMERICA	16-Aug-20	23	23	EFT	23-Jul-20	5-Aug-20	29-Jul-20	31-Aug-20	33	761	31-Aug-20	0	-
81	BANK OF AMERICA	16-Aug-20	430	401	EFT	22-Jul-20	18-Aug-20	4-Aug-20	31-Aug-20	27	10,823	31-Aug-20	0	-
82	BANK OF AMERICA	16-Aug-20	93	93	EFT	6-Aug-20	12-Aug-20	9-Aug-20	31-Aug-20	22	2,043	31-Aug-20	0	-
83	BANK OF AMERICA	16-Aug-20	37	37	EFT	18-Jul-20	5-Aug-20	27-Jul-20	31-Aug-20	35	1,304	31-Aug-20	0	-
84	BANK OF AMERICA	16-Sep-20	221	221	EFT	19-Aug-20	8-Sep-20	29-Aug-20	30-Sep-20	32	7,079	30-Sep-20	0	-
85	BANK OF AMERICA	16-Sep-20	15	15	EFT	2-Sep-20	2-Sep-20	2-Sep-20	30-Sep-20	28	420	30-Sep-20	0	-
86	BANK OF AMERICA	16-Sep-20	186	186	EFT	18-Aug-20	28-Aug-20	23-Aug-20	30-Sep-20	38	7,067	30-Sep-20	0	-
87	BANK OF AMERICA	16-Sep-20	127	91	EFT	23-Aug-20	15-Sep-20	3-Sep-20	30-Sep-20	27	2,459	30-Sep-20	0	-
88	BANK OF AMERICA	16-Sep-20	32	32	EFT	15-Aug-20	16-Sep-20	31-Aug-20	30-Sep-20	30	954	30-Sep-20	0	-
89	BANK OF AMERICA	16-Sep-20	265	265	EFT	9-Sep-20	9-Sep-20	9-Sep-20	30-Sep-20	21	5,555	30-Sep-20	0	-
90	BANK OF AMERICA	16-Oct-20	153	122	EFT	29-Sep-20	7-Oct-20	3-Oct-20	30-Oct-20	27	3,301	30-Oct-20	0	-
91	BANK OF AMERICA	16-Oct-20	262	262	EFT	1-Oct-20	6-Oct-20	3-Oct-20	30-Oct-20	27	7,076	30-Oct-20	0	-
92	BANK OF AMERICA	16-Oct-20	61	61	EFT	4-Oct-20	15-Oct-20	9-Oct-20	30-Oct-20	21	1,288	30-Oct-20	0	-
93	BANK OF AMERICA	16-Oct-20	100	80	EFT	16-Sep-20	12-Oct-20	29-Sep-20	30-Oct-20	31	2,482	30-Oct-20	0	-
94	BANK OF AMERICA	16-Oct-20	2,375	47	EFT	24-Jun-20	12-Oct-20	18-Aug-20	30-Oct-20	73	3,405	30-Oct-20	0	-
95	BANK OF AMERICA	16-Oct-20	45	28	EFT	24-Sep-20	5-Oct-20	29-Sep-20	30-Oct-20	31	865	30-Oct-20	0	-
96	BANK OF AMERICA	16-Oct-20	614	428	EFT	21-Sep-20	5-Oct-22	28-Sep-21	30-Oct-20	(333)	(142,404)	30-Oct-20	0	-
97	BANK OF AMERICA	16-Nov-20	150	150	EFT	2-Nov-20	2-Nov-20	2-Nov-20	30-Nov-20	28	4,200	30-Nov-20	0	-
98	BANK OF AMERICA	16-Nov-20	996	996	EFT	28-Oct-20	11-Nov-20	4-Nov-20	30-Nov-20	26	25,906	30-Nov-20	0	-
99	BANK OF AMERICA	16-Nov-20	554	482	EFT	20-Oct-20	3-Nov-20	27-Oct-20	30-Nov-20	34	16,388	30-Nov-20	0	-
100	BANK OF AMERICA	16-Nov-20	946	946	EFT	21-Oct-20	30-Oct-20	25-Oct-20	30-Nov-20	36	34,058	30-Nov-20	0	-
101	BANK OF AMERICA	16-Dec-20	168	85	EFT	23-Nov-20	8-Dec-20	30-Nov-20	31-Dec-20	31	2,628	31-Dec-20	0	-
102	BANK OF AMERICA	16-Dec-20	833	427	EFT	17-Nov-20	10-Dec-20	28-Nov-20	31-Dec-20	33	14,096	31-Dec-20	0	-
103	BANK OF AMERICA	16-Dec-20	226	23	EFT	18-Nov-20	15-Dec-20	1-Dec-20	31-Dec-20	30	699	31-Dec-20	0	-
104	BANK OF AMERICA	16-Dec-20	55	55	EFT	17-Nov-20	17-Nov-20	17-Nov-20	31-Dec-20	44	2,424	31-Dec-20	0	-
105	BANK OF AMERICA	16-Dec-20	345	262	EFT	18-Nov-20	30-Nov-20	24-Nov-20	31-Dec-20	37	9,694	31-Dec-20	0	-
106	BANK OF AMERICA	16-Dec-20	245	245	EFT	7-Dec-20	7-Dec-20	7-Dec-20	31-Dec-20	24	5,874	31-Dec-20	0	-
107	BANK OF AMERICA	16-Jan-21	26	26	EFT	4-Jan-21	4-Jan-21	4-Jan-21	29-Jan-21	25	661	29-Jan-21	0	-

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

CWC WP 5-1

Line No.	Vendor	Invoice Date	Invoice Amount	Division 009 Amount	Payment Type	Service Period From	Service Period To	Midpoint Service Service	Date Paid	Payment lag	Weighted Payment Lag	Date Cleared	Clearing Lag	Weighted Clearing Lag
108	BANK OF AMERICA	16-Jan-21	934	360	EFT	9-Oct-20	29-Jan-21	4-Dec-20	29-Jan-21	56	20,152	29-Jan-21	0	-
109	BANK OF AMERICA	16-Jan-21	77	77	EFT	22-Dec-20	22-Dec-20	22-Dec-20	29-Jan-21	38	2,940	29-Jan-21	0	-
110	BANK OF AMERICA	16-Jan-21	925	571	EFT	8-Dec-20	12-Jan-21	25-Dec-20	29-Jan-21	35	20,002	29-Jan-21	0	-
111	BANK OF AMERICA	16-Feb-21	713	713	EFT	2-Dec-20	22-Feb-21	12-Jan-21	26-Feb-21	45	32,066	26-Feb-21	0	-
112	BANK OF AMERICA	16-Feb-21	351	351	EFT	28-Jan-21	10-Feb-21	3-Feb-21	26-Feb-21	23	8,067	26-Feb-21	0	-
113	BANK OF AMERICA	16-Feb-21	288	288	EFT	2-Feb-21	9-Feb-21	5-Feb-21	26-Feb-21	21	6,038	26-Feb-21	0	-
114	BANK OF AMERICA	16-Mar-21	85	85	EFT	16-Feb-21	18-Feb-21	17-Feb-21	31-Mar-21	42	3,583	31-Mar-21	0	-
115	BANK OF AMERICA	16-Mar-21	192	192	EFT	26-Feb-21	9-Mar-21	3-Mar-21	31-Mar-21	28	5,372	31-Mar-21	0	-
116	BANK OF AMERICA	16-Mar-21	21	21	EFT	18-Feb-21	18-Feb-21	18-Feb-21	31-Mar-21	41	868	31-Mar-21	0	-
117	BANK OF AMERICA	16-Mar-21	329	117	EFT	9-Oct-20	26-Mar-21	1-Jan-21	31-Mar-21	89	10,381	31-Mar-21	0	-
118	Basham, Jake W (Jake)	1-Mar-21	157	157	Direct Deposit	9-Dec-20	4-Feb-21	6-Jan-21	3-Mar-21	56	8,803	3-Mar-21	0	-
119	Baumgardner, Steven M (Steven)	10-Aug-20	25	25	Direct Deposit	22-Jul-20	29-Jul-20	25-Jul-20	11-Aug-20	17	426	11-Aug-20	0	-
120	Baumgardner, Steven M (Steven)	18-Feb-21	63	63	Direct Deposit	16-Nov-20	5-Feb-21	26-Dec-20	22-Feb-21	58	3,657	22-Feb-21	0	-
121	BLUE GRASS ENERGY	7-Jun-20	50	50	CHECK	1-May-20	1-Jun-20	16-May-20	17-Jun-20	32	1,591	26-Jun-20	9	447
122	Bohlen, Silas A (Silas)	8-Oct-20	126	126	Direct Deposit	7-Oct-20	27-Oct-20	17-Oct-20	30-Oct-20	13	1,641	30-Oct-20	0	-
123	Bohlen, Silas A (Silas)	11-Dec-20	984	984	Direct Deposit	9-Dec-20	23-Feb-21	16-Jan-21	27-Jan-21	11	10,821	27-Jan-21	0	-
124	BOWLING GREEN MUNICIPAL UTILITIE	7-Jul-20	1,881	1,881	CHECK	5-Jun-20	7-Jul-20	21-Jun-20	27-Jul-20	36	67,714	6-Aug-20	10	18,809
125	BOWLING GREEN MUNICIPAL UTILITIE	5-Aug-20	193	193	CHECK	7-Jul-20	5-Aug-20	21-Jul-20	31-Aug-20	41	7,907	11-Sep-20	11	2,121
126	BOWLING GREEN MUNICIPAL UTILITIE	9-Nov-20	27	27	CHECK	9-Oct-20	9-Nov-20	24-Oct-20	2-Dec-20	39	1,058	10-Dec-20	8	217
127	Brown, Bobby S (Bobby)	12-Mar-21	497	407	Direct Deposit	4-Mar-21	10-Mar-21	7-Mar-21	17-Mar-21	10	4,065	17-Mar-21	0	-
128	Brown, Sean R (Sean)	23-Jul-20	43	43	Direct Deposit	21-Jul-20	21-Jul-20	21-Jul-20	27-Jul-20	6	261	27-Jul-20	0	-
129	BRYANT CONSULTANTS INC	29-Feb-20	1,600	1,600	CHECK	29-Feb-20	29-Feb-20	29-Feb-20	1-Apr-20	32	51,200	8-Apr-20	7	11,200
130	BUCKMAN CHRIS	30-Aug-20	150	150	CHECK	30-Aug-20	30-Aug-20	30-Aug-20	12-Oct-20	43	6,450	19-Oct-20	7	1,050
131	CAMPBELLSVILLE WATER AND SEWER	11-Jun-20	21	23	CHECK	15-May-20	11-Jun-20	28-May-20	13-Jul-20	46	1,041	22-Jul-20	9	204
132	CAMPBELLSVILLE WATER AND SEWER	19-Aug-20	22	23	CHECK	20-Jul-20	19-Aug-20	4-Aug-20	14-Sep-20	41	955	23-Sep-20	9	210
133	CARDINAL TRACKING INC	20-May-20	986	1,045	Direct Deposit	2-May-20	2-May-20	2-May-20	15-Jun-20	44	45,976	15-Jun-20	0	-
134	CHAMBER OF COMMERCE	1-Jan-21	400	400	CHECK	1-Jan-21	31-Dec-21	2-Jul-21	4-Jan-21	(179)	(71,600)	28-Jan-21	24	9,600
135	CITY OF DANVILLE KY	1-Jun-20	7	7	CHECK	1-May-20	30-Jun-20	31-May-20	6-Jul-20	36	256	15-Jul-20	9	64
136	CITY OF FRANKLIN KY	23-Jul-20	52	52	CHECK	9-Jun-20	9-Jul-20	24-Jun-20	3-Aug-20	40	2,094	17-Aug-20	14	733
137	CITY OF FRANKLIN KY	24-Aug-20	52	52	CHECK	9-Jul-20	10-Aug-20	25-Jul-20	9-Sep-20	46	2,409	21-Sep-20	12	628
138	CLARK BEVERAGE GROUP INC	7-Apr-20	45	45	CHECK	7-Apr-20	7-Apr-20	7-Apr-20	13-Apr-20	6	267	21-Apr-20	8	356
139	CLARK BEVERAGE GROUP INC	14-May-20	111	111	CHECK	14-May-20	14-May-20	14-May-20	20-May-20	6	668	28-May-20	8	890
140	CLEAN GREEN PORTA POTTIES LLC	9-Aug-20	58	62	CHECK	6-Jul-20	2-Aug-20	19-Jul-20	9-Sep-20	52	3,214	21-Sep-20	12	742
141	Coleman, Michael D (Mike)	19-Nov-20	260	260	Direct Deposit	25-Sep-20	17-Nov-20	21-Oct-20	23-Nov-20	33	8,574	23-Nov-20	0	-
142	COMCAST CABLE	8-Jul-20	157	157	CHECK	8-Jun-20	8-Jul-20	23-Jun-20	20-Jul-20	27	4,251	4-Aug-20	15	2,362
143	COMCAST CABLE	8-Oct-20	164	164	CHECK	8-Sep-20	8-Oct-20	23-Sep-20	19-Oct-20	26	4,253	5-Nov-20	17	2,781
144	COMCAST CABLE	8-Nov-20	154	154	Direct Deposit	8-Oct-20	8-Nov-20	23-Oct-20	13-Nov-20	21	3,225	13-Nov-20	0	-
145	COMCAST CABLE	22-Nov-20	325	325	CHECK	22-Oct-20	22-Nov-20	6-Nov-20	2-Dec-20	26	8,446	14-Dec-20	12	3,898
146	COMCAST CABLE	8-Feb-21	177	177	Direct Deposit	8-Jan-21	8-Feb-21	23-Jan-21	11-Feb-21	19	3,358	11-Feb-21	0	-
147	Cox, Matthew T (Matthew)	21-Jul-20	34	34	Direct Deposit	21-Jul-20	21-Jul-20	21-Jul-20	23-Jul-20	2	68	23-Jul-20	0	-
148	Cox, Matthew T (Matthew)	31-Aug-20	40	40	Direct Deposit	25-Aug-20	25-Aug-20	25-Aug-20	3-Sep-20	9	361	3-Sep-20	0	-
149	DAILY NEWS INC	1-Jan-21	208	208	CHECK	7-Jan-21	6-Feb-22	23-Jul-21	11-Jan-21	(194)	(40,428)	21-Jan-21	10	2,084
150	DITCH WITCH MID STATES	20-May-20	306	306	CHECK	20-May-20	20-May-20	20-May-20	4-Jun-20	15	4,594	9-Jun-20	5	1,531
151	DS GARAGE DOOR SERVICE LLC	8-Jan-21	159	159	Direct Deposit	8-Jan-21	8-Jan-21	8-Jan-21	26-Jan-21	18	2,862	26-Jan-21	0	-
152	EGW UTILITIES INC	7-Apr-20	245	245	Direct Deposit	7-Apr-20	7-Apr-20	7-Apr-20	4-May-20	27	6,611	4-May-20	0	-
153	EGW UTILITIES INC	1-May-20	488	488	Direct Deposit	1-May-20	1-May-20	1-May-20	26-May-20	25	12,212	26-May-20	0	-
154	EGW UTILITIES INC	11-Jan-21	943	943	Direct Deposit	11-Jan-21	11-Jan-21	11-Jan-21	5-Feb-21	25	23,571	5-Feb-21	0	-
155	ELEMENT FLEET	6-Apr-20	1,100,412	21,000	Direct Deposit	1-Mar-20	31-Mar-20	16-Mar-20	7-Apr-20	22	461,998	7-Apr-20	0	-
156	ELIZABETHTON ELECTRIC SYSTEM	21-Jan-21	170	170	CHECK	22-Dec-20	21-Jan-21	6-Jan-21	27-Jan-21	21	3,573	3-Feb-21	7	1,191
157	ENGLISH LUCAS PRIEST AND OWSLEY	6-Nov-20	126	126	Direct Deposit	23-Oct-20	23-Oct-20	23-Oct-20	30-Nov-20	38	4,788	30-Nov-20	0	-
158	ENGLISH LUCAS PRIEST AND OWSLEY	4-Dec-20	63	63	Direct Deposit	10-Nov-20	30-Nov-20	20-Nov-20	29-Dec-20	39	2,457	29-Dec-20	0	-
159	ENGLISH LUCAS PRIEST AND OWSLEY	9-Dec-20	1,890	1,890	Direct Deposit	18-Nov-20	30-Nov-20	24-Nov-20	29-Dec-20	35	66,150	29-Dec-20	0	-
160	EWAN NORMA	22-Jan-21	46	46	CHECK	23-Feb-21	22-Feb-22	24-Aug-21	27-Jan-21	(209)	(9,614)	9-Mar-21	41	1,886
161	FARMERS RURAL ELECTRIC COOPERA	17-Sep-20	29	29	CHECK	18-Aug-20	16-Sep-20	1-Sep-20	28-Sep-20	27	778	8-Oct-20	10	288

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

CWC WP 5-1

Line		Invoice	Invoice	Division 009	Payment	Service Period		Midpoint Service	Date	Payment	Weighted Payment	Date	Clearing	Weighted Clearing
No.	Vendor	Date	Amount	Amount	Type	From	To	Service	Paid	lag	Lag	Cleared	Lag	Lag
162	FARMERS RURAL ELECTRIC COOPERA	18-Feb-21	29	29	CHECK	18-Jan-21	17-Feb-21	2-Feb-21	1-Mar-21	27	794	10-Mar-21	9	265
163	FIRST-LINE FIRE EXTINGUISHER CO	18-Jun-20	650	650	CHECK	18-Jun-20	18-Jun-20	18-Jun-20	13-Jul-20	25	16,247	22-Jul-20	9	5,849
164	FIRST-LINE FIRE EXTINGUISHER CO	18-Aug-20	971	971	CHECK	18-Aug-20	18-Aug-20	18-Aug-20	14-Sep-20	27	26,225	22-Sep-20	8	7,770
165	FIRST-LINE FIRE EXTINGUISHER CO	29-Oct-20	251	251	CHECK	29-Oct-20	29-Oct-20	29-Oct-20	23-Nov-20	25	6,280	1-Dec-20	8	2,010
166	FRANCOTYP POSTALIA INC	15-May-20	143	143	CHECK	14-May-20	13-Aug-20	28-Jun-20	10-Jun-20	(19)	(2,719)	22-Jun-20	12	1,717
167	FRANKLIN ELECTRIC PLANT BOARD	26-May-20	50	50	CHECK	26-Apr-20	26-May-20	11-May-20	15-Jun-20	35	1,762	23-Jun-20	8	403
168	FRANKLIN ELECTRIC PLANT BOARD	18-Jul-20	32	32	CHECK	16-Jun-20	18-Jul-20	2-Jul-20	3-Aug-20	32	1,031	12-Aug-20	9	290
169	FRANKLIN ELECTRIC PLANT BOARD	28-Oct-20	48	48	CHECK	28-Sep-20	28-Oct-20	13-Oct-20	16-Nov-20	34	1,634	25-Nov-20	9	433
170	GAS AND SUPPLY	13-Jul-20	81	81	CHECK	13-Jul-20	13-Jul-20	13-Jul-20	10-Aug-20	28	2,262	19-Aug-20	9	727
171	GEORG FISCHER CENTRAL PLASTICS	10-Jun-20	1,100	1,166	Direct Deposit	10-Jun-20	10-Jun-20	10-Jun-20	6-Jul-20	26	30,323	6-Jul-20	0	-
172	GEORG FISCHER CENTRAL PLASTICS	9-Feb-21	467	495	Direct Deposit	9-Feb-21	9-Feb-21	9-Feb-21	8-Mar-21	27	13,366	8-Mar-21	0	-
173	GLASGOW ELECTRIC PLANT BOARD	1-Mar-21	80	80	CHECK	1-Feb-21	1-Mar-21	15-Feb-21	15-Mar-21	28	2,249	22-Mar-21	7	562
174	HAWKEYE HELICOPTER LLC	12-Jan-21	1,444	1,444	Direct Deposit	7-Jan-21	7-Jan-21	7-Jan-21	22-Jan-21	15	21,665	22-Jan-21	0	-
175	HOPKINSVILLE ELECTRIC SYSTEM	13-Jun-20	41	29	CHECK	11-May-20	30-Jun-20	5-Jun-20	29-Jun-20	24	693	9-Jul-20	10	289
176	HOPKINSVILLE ELECTRIC SYSTEM	1-Jul-20	192	203	CHECK	1-Jun-20	30-Jun-20	15-Jun-20	27-Jul-20	42	8,537	5-Aug-20	9	1,829
177	HOPKINSVILLE ELECTRIC SYSTEM	8-Nov-20	37	37	CHECK	8-Oct-20	8-Nov-20	23-Oct-20	25-Nov-20	33	1,225	4-Dec-20	9	334
178	HOPKINSVILLE ELECTRIC SYSTEM	20-Jan-21	127	127	CHECK	20-Dec-20	20-Jan-21	4-Jan-21	8-Feb-21	35	4,439	22-Feb-21	14	1,775
179	INTER COUNTY ENERGY	4-May-20	22	22	CHECK	15-Mar-20	15-Apr-20	30-Mar-20	13-May-20	44	946	22-May-20	9	194
180	INTER COUNTY ENERGY	10-May-20	26	26	CHECK	10-Apr-20	10-May-20	25-Apr-20	15-Jun-20	51	1,323	24-Jun-20	9	233
181	INTER COUNTY ENERGY	1-Sep-20	21	21	CHECK	1-Aug-20	1-Sep-20	16-Aug-20	5-Oct-20	50	1,045	14-Oct-20	9	188
182	INTER COUNTY ENERGY	4-Jan-21	23	23	CHECK	15-Nov-20	15-Dec-20	30-Nov-20	18-Jan-21	49	1,130	26-Jan-21	8	185
183	JACKSON PURCHASE ENERGY CORPC	20-Mar-20	25	25	CHECK	21-Feb-20	20-Mar-20	6-Mar-20	8-Apr-20	33	813	15-Apr-20	7	173
184	JACKSON PURCHASE ENERGY CORPC	31-Mar-20	27	29	CHECK	21-Feb-20	20-Mar-20	6-Mar-20	6-Apr-20	31	900	15-Apr-20	9	261
185	JACKSON PURCHASE ENERGY CORPC	15-Apr-20	28	28	CHECK	6-Mar-20	5-Apr-20	21-Mar-20	20-Apr-20	30	840	29-Apr-20	9	252
186	JACKSON PURCHASE ENERGY CORPC	23-Jul-20	12	13	CHECK	14-Jun-20	14-Jul-20	29-Jun-20	27-Jul-20	28	368	5-Aug-20	9	118
187	JACKSON PURCHASE ENERGY CORPC	15-Sep-20	29	31	CHECK	7-Aug-20	6-Sep-20	22-Aug-20	21-Sep-20	30	936	1-Oct-20	10	312
188	JACKSON PURCHASE ENERGY CORPC	22-Jan-21	12	12	CHECK	14-Dec-20	14-Jan-21	29-Dec-20	1-Feb-21	34	418	10-Feb-21	9	111
189	JACKSON PURCHASE ENERGY CORPC	29-Jan-21	30	32	CHECK	21-Dec-20	21-Jan-21	5-Jan-21	3-Feb-21	29	925	10-Feb-21	7	223
190	JACKSON PURCHASE ENERGY CORPC	29-Jan-21	25	27	CHECK	21-Dec-20	21-Jan-21	5-Jan-21	3-Feb-21	29	769	10-Feb-21	7	186
191	JENKINS PLUMBING INC	26-Feb-21	548	548	CHECK	23-Feb-21	23-Feb-21	23-Feb-21	24-Mar-21	29	15,892	2-Apr-21	9	4,932
192	JENNINGS AND LITTLE EXCAVATING	27-Jul-20	979	979	CHECK	27-Jul-20	27-Jul-20	27-Jul-20	24-Aug-20	28	27,409	2-Sep-20	9	8,810
193	JENNINGS AND LITTLE EXCAVATING	27-Jul-20	7,216	7,216	CHECK	27-Jul-20	27-Jul-20	27-Jul-20	24-Aug-20	28	202,038	2-Sep-20	9	64,941
194	JENNINGS AND LITTLE EXCAVATING	10-Aug-20	2,918	2,918	CHECK	10-Aug-20	10-Aug-20	10-Aug-20	9-Sep-20	30	87,539	22-Sep-20	13	37,933
195	JENNINGS AND LITTLE EXCAVATING	26-Aug-20	100	100	CHECK	26-Aug-20	26-Aug-20	26-Aug-20	21-Sep-20	26	2,600	29-Sep-20	8	800
196	JENNINGS AND LITTLE EXCAVATING	26-Oct-20	1,866	1,866	CHECK	26-Oct-20	26-Oct-20	26-Oct-20	23-Nov-20	28	52,237	2-Dec-20	9	16,790
197	JENNINGS AND LITTLE EXCAVATING	22-Jan-21	1,000	1,000	CHECK	22-Jan-21	22-Jan-21	22-Jan-21	19-Feb-21	28	28,000	25-Feb-21	6	6,000
198	JEWELL LAWN AND LANDSCAPE	1-Dec-20	848	848	CHECK	1-Dec-20	1-Dec-20	1-Dec-20	14-Dec-20	13	11,024	23-Dec-20	9	7,632
199	KELLYS KLEENING	25-Feb-21	636	636	Direct Deposit	1-Feb-21	28-Feb-21	14-Feb-21	22-Mar-21	36	22,896	22-Mar-21	0	-
200	KENERGY CORP	6-Apr-20	82	82	CHECK	6-Mar-20	6-Apr-20	21-Mar-20	20-Apr-20	30	2,462	28-Apr-20	8	657
201	KENERGY CORP	2-Jun-20	31	31	CHECK	2-May-20	2-Jun-20	17-May-20	24-Jun-20	38	1,174	1-Jul-20	7	216
202	KENERGY CORP	6-Jun-20	28	28	CHECK	6-May-20	6-Jun-20	21-May-20	22-Jun-20	32	893	30-Jun-20	8	223
203	KENERGY CORP	2-Jul-20	59	59	CHECK	2-Jun-20	2-Jul-20	17-Jun-20	15-Jul-20	28	1,655	27-Jul-20	12	709
204	KENERGY CORP	9-Jul-20	2,028	1,014	CHECK	9-Jun-20	9-Jul-20	24-Jun-20	22-Jul-20	28	28,393	29-Jul-20	7	7,098
205	KENERGY CORP	23-Jul-20	33	33	CHECK	23-Jun-20	23-Jul-20	8-Jul-20	10-Aug-20	33	1,096	18-Aug-20	8	266
206	KENERGY CORP	16-Aug-20	27	27	CHECK	16-Jul-20	16-Aug-20	31-Jul-20	9-Sep-20	40	1,081	17-Sep-20	8	216
207	KENERGY CORP	11-Sep-20	27	27	CHECK	11-Aug-20	11-Sep-20	26-Aug-20	23-Sep-20	28	756	1-Oct-20	8	216
208	KENERGY CORP	16-Sep-20	27	27	CHECK	16-Aug-20	16-Sep-20	31-Aug-20	30-Sep-20	30	810	8-Oct-20	8	216
209	KENERGY CORP	2-Oct-20	64	64	CHECK	2-Sep-20	2-Oct-20	17-Sep-20	19-Oct-20	32	2,053	26-Oct-20	7	449
210	KENERGY CORP	20-Oct-20	38	38	CHECK	20-Sep-20	20-Oct-20	5-Oct-20	4-Nov-20	30	1,141	10-Nov-20	6	228
211	KENERGY CORP	28-Oct-20	27	27	CHECK	28-Sep-20	28-Oct-20	13-Oct-20	16-Nov-20	34	914	23-Nov-20	7	188
212	KENERGY CORP	2-Nov-20	44	44	CHECK	2-Oct-20	2-Nov-20	17-Oct-20	23-Nov-20	37	1,640	3-Dec-20	10	443
213	KENERGY CORP	6-Nov-20	25	25	CHECK	6-Oct-20	6-Nov-20	21-Oct-20	23-Nov-20	33	834	3-Dec-20	10	253
214	KENERGY CORP	17-Dec-20	31	31	CHECK	17-Nov-20	17-Dec-20	2-Dec-20	4-Jan-21	33	1,013	11-Jan-21	7	215
215	KENERGY CORP	20-Feb-21	37	37	CHECK	20-Jan-21	20-Feb-21	4-Feb-21	10-Mar-21	34	1,273	16-Mar-21	6	225

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

CWC WP 5-1

Line No.	Vendor	Invoice Date	Invoice Amount	Division 009 Amount	Payment Type	Service Period From	Service Period To	Midpoint Service Service	Date Paid	Payment lag	Weighted Payment Lag	Date Cleared	Clearing Lag	Weighted Clearing Lag
216	KENERGY CORP	24-Feb-21	25	25	CHECK	6-Jan-21	6-Feb-21	21-Jan-21	1-Mar-21	39	984	8-Mar-21	7	177
217	KENERGY CORP	2-Mar-21	42	42	CHECK	2-Feb-21	2-Mar-21	16-Feb-21	22-Mar-21	34	1,419	29-Mar-21	7	292
218	KENERGY CORP	6-Mar-21	39	39	CHECK	6-Feb-21	6-Mar-21	20-Feb-21	24-Mar-21	32	1,248	31-Mar-21	7	273
219	KENERGY CORP	6-Mar-21	47	47	CHECK	6-Feb-21	6-Mar-21	20-Feb-21	24-Mar-21	32	1,511	31-Mar-21	7	331
220	KENTUCKY 811	8-Jan-21	8,652	8,652	Direct Deposit	1-Dec-20	31-Dec-20	16-Dec-20	2-Feb-21	48	415,296	2-Feb-21	0	-
221	KENTUCKY COUNTY JUDGE EXECUTIV	6-Jan-21	200	200	CHECK	1-Jan-21	31-Dec-21	2-Jul-21	15-Mar-21	(109)	(21,800)	26-Mar-21	11	2,200
222	KU ENERGY CORPORATION	20-Apr-20	38	38	CHECK	18-Mar-20	17-Apr-20	2-Apr-20	29-Apr-20	27	1,031	11-May-20	12	458
223	KU ENERGY CORPORATION	12-May-20	36	36	CHECK	13-Apr-20	11-May-20	27-Apr-20	27-May-20	30	1,072	8-Jun-20	12	429
224	KU ENERGY CORPORATION	18-May-20	37	37	CHECK	16-Apr-20	15-May-20	30-Apr-20	27-May-20	27	996	8-Jun-20	12	443
225	KU ENERGY CORPORATION	23-Jun-20	12	12	CHECK	22-May-20	22-Jun-20	6-Jun-20	1-Jul-20	25	308	13-Jul-20	12	148
226	KU ENERGY CORPORATION	24-Jun-20	54	54	CHECK	23-May-20	24-Jun-20	8-Jun-20	13-Jul-20	35	1,873	28-Jul-20	15	803
227	KU ENERGY CORPORATION	20-Aug-20	5	5	CHECK	18-Jul-20	20-Aug-20	3-Aug-20	9-Sep-20	37	188	23-Sep-20	14	71
228	KU ENERGY CORPORATION	21-Aug-20	12	12	CHECK	23-Jul-20	20-Aug-20	6-Aug-20	9-Sep-20	34	416	23-Sep-20	14	171
229	KU ENERGY CORPORATION	17-Sep-20	12	12	CHECK	18-Aug-20	16-Sep-20	1-Sep-20	28-Sep-20	27	318	14-Oct-20	16	189
230	KU ENERGY CORPORATION	21-Sep-20	43	43	CHECK	19-Aug-20	18-Sep-20	3-Sep-20	30-Sep-20	27	1,162	8-Oct-20	8	344
231	KU ENERGY CORPORATION	8-Oct-20	38	38	CHECK	4-Sep-20	7-Oct-20	20-Sep-20	21-Oct-20	31	1,175	27-Oct-20	6	227
232	KU ENERGY CORPORATION	5-Nov-20	37	37	CHECK	6-Oct-20	4-Nov-20	20-Oct-20	18-Nov-20	29	1,074	27-Nov-20	9	333
233	KU ENERGY CORPORATION	22-Dec-20	12	12	CHECK	20-Nov-20	21-Dec-20	5-Dec-20	4-Jan-21	30	374	15-Jan-21	11	137
234	KU ENERGY CORPORATION	17-Feb-21	42	42	CHECK	15-Jan-21	16-Feb-21	31-Jan-21	1-Mar-21	29	1,229	9-Mar-21	8	339
235	KU ENERGY CORPORATION	19-Mar-21	12	12	CHECK	18-Feb-21	18-Mar-21	4-Mar-21	31-Mar-21	27	319	6-Apr-21	6	71
236	LASER BEAM STUDIO LLP	17-Apr-20	971	971	Direct Deposit	17-Apr-20	17-Apr-20	17-Apr-20	12-May-20	25	24,274	12-May-20	0	-
237	LAWN WORX LLC	31-Aug-20	3,540	3,540	CHECK	1-Aug-20	31-Aug-20	16-Aug-20	28-Sep-20	43	152,237	7-Oct-20	9	31,864
238	LEBANON WATER WORKS INC	15-Sep-20	24	24	CHECK	14-Aug-20	15-Sep-20	30-Aug-20	14-Oct-20	45	1,059	21-Oct-20	7	165
239	LOGANS INC	16-Nov-20	44	44	Direct Deposit	16-Nov-20	16-Nov-20	16-Nov-20	11-Dec-20	25	1,104	11-Dec-20	0	-
240	Lowe, Brett P (Brett)	30-Sep-20	784	714	Direct Deposit	9-Jul-20	30-Sep-20	19-Aug-20	2-Oct-20	44	31,412	2-Oct-20	0	-
241	MADISONVILLE MUNICIPAL UTILITIES	4-May-20	34	34	CHECK	5-Apr-20	4-May-20	19-Apr-20	20-May-20	31	1,054	1-Jun-20	12	408
242	MADISONVILLE MUNICIPAL UTILITIES	17-Aug-20	84	84	CHECK	20-Jul-20	17-Aug-20	3-Aug-20	9-Sep-20	37	3,090	22-Sep-20	13	1,086
243	MADISONVILLE MUNICIPAL UTILITIES	3-Feb-21	38	38	CHECK	12-Dec-20	21-Jan-21	1-Jan-21	3-Feb-21	33	1,264	11-Feb-21	8	306
244	MADISONVILLE MUNICIPAL UTILITIES	1-Mar-21	1,229	738	CHECK	3-Feb-21	1-Mar-21	16-Feb-21	22-Mar-21	34	25,076	30-Mar-21	8	5,900
245	MARTIN MARIETTA MATERIALS	3-Sep-20	580	580	CHECK	9-Sep-20	9-Sep-20	9-Sep-20	28-Oct-20	49	28,419	2-Nov-20	5	2,900
246	MASTERCRAFT PRINTED PRODUCTS A	15-Jul-20	190	201	Direct Deposit	14-Jul-20	14-Jul-20	14-Jul-20	10-Aug-20	27	5,425	10-Aug-20	0	-
247	Mattingly, Patrick T (Pat)	12-Aug-20	168	123	Direct Deposit	1-Jul-20	5-Aug-20	18-Jul-20	13-Aug-20	26	3,193	13-Aug-20	0	-
248	Mattingly, Patrick T (Pat)	8-Oct-20	73	66	Direct Deposit	1-Oct-20	7-Oct-20	4-Oct-20	13-Oct-20	9	593	13-Oct-20	0	-
249	Mayes, Larry A (Andy)	15-Dec-20	104	104	Direct Deposit	11-Dec-20	10-Jan-21	26-Dec-20	17-Dec-20	(9)	(934)	17-Dec-20	0	-
250	MCGRIFF SEIBELS AND WILLIAMS INC	1-Sep-20	102	102	CHECK	22-Sep-20	22-Sep-21	23-Mar-21	14-Sep-20	(191)	(19,444)	23-Sep-20	9	916
251	MCGRIFF SEIBELS AND WILLIAMS INC	2-Feb-21	800	800	CHECK	15-Feb-21	15-Feb-22	16-Aug-21	19-Feb-21	(179)	(143,200)	26-Feb-21	7	5,600
252	MCGRIFF SEIBELS AND WILLIAMS INC	2-Mar-21	102	102	CHECK	1-Mar-21	1-Mar-22	30-Aug-21	8-Mar-21	(176)	(17,917)	16-Mar-21	8	814
253	MEADE COUNTY RURAL ELECTRIC	8-Jul-20	138	138	CHECK	3-Jun-20	3-Jul-20	18-Jun-20	15-Jul-20	27	3,721	28-Jul-20	13	1,792
254	MERIWETHER RANDY	2-Jun-20	800	800	CHECK	1-Jun-20	30-Jun-20	15-Jun-20	29-Jun-20	14	11,200	13-Jul-20	14	11,200
255	MERIWETHER RANDY	1-Aug-20	800	800	CHECK	1-Aug-20	31-Aug-20	16-Aug-20	26-Aug-20	10	8,000	2-Sep-20	7	5,600
256	MERIWETHER RANDY	1-Dec-20	800	800	CHECK	1-Dec-20	31-Dec-20	16-Dec-20	29-Dec-20	13	10,400	7-Jan-21	9	7,200
257	MGA SPECIAL EVENTS	1-Sep-20	1,000	1,060	CHECK	5-Oct-20	10-Oct-20	7-Oct-20	16-Sep-20	(22)	(23,320)	1-Oct-20	15	15,900
258	MODERN SUPPLY COMPANY INC	31-Dec-20	70	75	CHECK	1-Dec-20	31-Dec-20	16-Dec-20	11-Jan-21	26	1,940	20-Jan-21	9	672
259	MRC GLOBAL	26-May-20	226,792	4,222	Direct Deposit	24-Mar-20	26-May-20	24-Apr-20	15-Jun-20	52	219,520	15-Jun-20	0	-
260	MRC GLOBAL	26-Oct-20	369,999	3,905	Direct Deposit	3-Aug-20	26-Oct-20	14-Sep-20	16-Nov-20	63	245,984	16-Nov-20	0	-
261	MRC GLOBAL	4-Jan-21	198,202	1,540	Direct Deposit	10-Nov-20	4-Jan-21	7-Dec-20	25-Jan-21	49	75,470	25-Jan-21	0	-
262	MRC GLOBAL	15-Feb-21	175,947	2,863	Direct Deposit	19-Jan-21	15-Feb-21	1-Feb-21	8-Mar-21	35	100,204	8-Mar-21	0	-
263	Nash, Kenneth W (Kenny)	18-Nov-20	253	253	Direct Deposit	3-Nov-20	9-Jan-20	6-Jun-20	20-Nov-20	167	42,181	20-Nov-20	0	-
264	ONE HEALTH	3-Aug-19	75	75	CHECK	23-Aug-19	23-Aug-19	23-Aug-19	17-Jun-20	299	22,425	3-Jul-20	16	1,200
265	ONE HEALTH	31-Jan-21	75	75	CHECK	5-Jan-21	5-Jan-21	5-Jan-21	19-Feb-21	45	3,375	26-Feb-21	7	525
266	OPC PEST SERVICES	18-Dec-20	55	55	CHECK	18-Dec-20	18-Dec-20	18-Dec-20	29-Dec-20	11	605	6-Jan-21	8	440
267	ORKIN PEST CONTROL	12-Oct-20	226	226	CHECK	12-Oct-20	12-Oct-20	12-Oct-20	14-Dec-20	63	14,216	22-Dec-20	8	1,805
268	OWENS CONSTRUCTION	30-Mar-20	2,200	2,200	CHECK	30-Mar-20	30-Mar-20	30-Mar-20	27-Apr-20	28	61,600	14-May-20	17	37,400
269	OWENS CONSTRUCTION	7-Sep-20	2,100	2,100	CHECK	7-Sep-20	7-Sep-20	7-Sep-20	5-Oct-20	28	58,800	22-Oct-20	17	35,700

Exhibit JTC-4 Lead Lag Study

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

CWC WP 5-1

Line No.	Vendor	Invoice Date	Invoice Amount	Division 009 Amount	Payment Type	Service Period From	Service Period To	Midpoint Service Service	Date Paid	Payment lag	Weighted Payment Lag	Date Cleared	Clearing Lag	Weighted Clearing Lag
270	OWENSBORO MUNICIPAL UTILITIES	17-Apr-20	33	33	CHECK	13-Mar-20	13-Apr-20	28-Mar-20	29-Apr-20	32	1,066	11-May-20	12	400
271	OWENSBORO MUNICIPAL UTILITIES	19-Aug-20	1,036	1,036	CHECK	20-Jul-20	19-Aug-20	4-Aug-20	31-Aug-20	27	27,975	9-Sep-20	9	9,325
272	OWENSBORO MUNICIPAL UTILITIES	18-Sep-20	1,036	1,036	CHECK	19-Aug-20	18-Sep-20	3-Sep-20	5-Oct-20	32	33,155	9-Oct-20	4	4,144
273	OWENSBORO MUNICIPAL UTILITIES	2-Nov-20	38	38	CHECK	29-Sep-20	27-Oct-20	13-Oct-20	16-Nov-20	34	1,297	23-Nov-20	7	267
274	OWENSBORO MUNICIPAL UTILITIES	22-Feb-21	36	36	CHECK	24-Dec-20	26-Jan-21	9-Jan-21	24-Feb-21	46	1,657	2-Mar-21	6	216
275	PADUCAH BOARD OF REALTORS INC	14-Dec-20	300	300	CHECK	1-Jan-21	31-Dec-21	2-Jul-21	4-Jan-21	(179)	(53,700)	13-Jan-21	9	2,700
276	PADUCAH POWER SYSTEM	24-Mar-20	42	42	CHECK	23-Feb-20	23-Mar-20	8-Mar-20	6-Apr-20	29	1,216	14-Apr-20	8	335
277	PADUCAH POWER SYSTEM	27-Mar-20	781	781	CHECK	25-Feb-20	25-Mar-20	10-Mar-20	13-Apr-20	34	26,554	20-Apr-20	7	5,467
278	PADUCAH POWER SYSTEM	14-May-20	39	39	CHECK	14-Apr-20	13-May-20	28-Apr-20	27-May-20	29	1,134	4-Jun-20	8	313
279	PADUCAH POWER SYSTEM	16-Jul-20	39	39	CHECK	11-Jun-20	14-Jul-20	27-Jun-20	29-Jul-20	32	1,247	7-Aug-20	9	351
280	PADUCAH POWER SYSTEM	13-Oct-20	36	36	CHECK	10-Sep-20	11-Oct-20	25-Sep-20	11-Nov-20	47	1,687	18-Nov-20	7	251
281	PADUCAH POWER SYSTEM	3-Nov-20	31	31	CHECK	30-Sep-20	1-Nov-20	16-Oct-20	18-Nov-20	33	1,017	27-Nov-20	9	277
282	PADUCAH POWER SYSTEM	17-Nov-20	24	24	CHECK	14-Oct-20	15-Nov-20	30-Oct-20	16-Dec-20	47	1,129	23-Dec-20	7	168
283	PADUCAH POWER SYSTEM	8-Dec-20	36	36	CHECK	5-Nov-20	6-Dec-20	20-Nov-20	21-Dec-20	31	1,118	29-Dec-20	8	288
284	PADUCAH POWER SYSTEM	27-Jan-21	41	41	CHECK	21-Dec-20	22-Jan-21	6-Jan-21	8-Feb-21	33	1,337	19-Feb-21	11	446
285	PADUCAH POWER SYSTEM	29-Jan-21	691	691	CHECK	25-Dec-20	25-Jan-20	10-Jul-20	12-Feb-21	217	149,958	19-Feb-21	7	4,837
286	PADUCAH POWER SYSTEM	11-Mar-21	28	28	CHECK	11-Feb-21	11-Mar-21	25-Feb-21	29-Mar-21	32	906	2-Apr-21	4	113
287	PADUCAH SUN INC	1-Nov-20	565	565	CHECK	1-Nov-20	1-Nov-20	1-Nov-20	18-Nov-20	17	9,605	24-Nov-20	6	3,390
288	PADUCAH WATER WORKS	25-Sep-20	112	119	CHECK	25-Aug-20	25-Sep-20	9-Sep-20	21-Oct-20	42	4,982	27-Oct-20	6	712
289	Patterson, Joshua T. (Josh)	9-Feb-21	12	12	Direct Deposit	8-Feb-21	8-Feb-21	8-Feb-21	10-Feb-21	2	24	10-Feb-21	0	-
290	Payne, James M (James)	24-Jul-20	390	390	Direct Deposit	8-Jul-20	23-Jul-20	15-Jul-20	29-Jul-20	14	5,466	29-Jul-20	0	-
291	Payne, James M (James)	10-Dec-20	394	394	Direct Deposit	19-Nov-20	9-Dec-20	29-Nov-20	14-Dec-20	15	5,917	14-Dec-20	0	-
292	PENNYRILE RURAL ELECTRIC COOP C	17-May-20	38	38	CHECK	17-Apr-20	17-May-20	2-May-20	27-May-20	25	951	3-Jun-20	7	266
293	PENNYRILE RURAL ELECTRIC COOP C	26-May-20	38	38	CHECK	26-Apr-20	26-May-20	11-May-20	4-Jun-20	24	915	12-Jun-20	8	305
294	PENNYRILE RURAL ELECTRIC COOP C	17-Jun-20	35	35	CHECK	17-May-20	17-Jun-20	1-Jun-20	22-Jun-20	21	727	30-Jun-20	8	277
295	PENNYRILE RURAL ELECTRIC COOP C	23-Jun-20	34	34	CHECK	23-May-20	23-Jun-20	7-Jun-20	29-Jun-20	22	759	7-Jul-20	8	276
296	PENNYRILE RURAL ELECTRIC COOP C	17-Aug-20	35	35	CHECK	17-Jul-20	17-Aug-20	1-Aug-20	24-Aug-20	23	799	1-Sep-20	8	278
297	PENNYRILE RURAL ELECTRIC COOP C	17-Aug-20	70	70	CHECK	17-Jul-20	17-Aug-20	1-Aug-20	24-Aug-20	23	1,608	1-Sep-20	8	559
298	PENNYRILE RURAL ELECTRIC COOP C	21-Oct-20	37	37	CHECK	20-Sep-20	21-Oct-20	5-Oct-20	26-Oct-20	21	768	2-Nov-20	7	256
299	PENNYRILE RURAL ELECTRIC COOP C	17-Nov-20	34	34	CHECK	18-Oct-20	17-Nov-20	2-Nov-20	23-Nov-20	21	722	1-Dec-20	8	275
300	PENNYRILE RURAL ELECTRIC COOP C	26-Nov-20	33	33	CHECK	26-Oct-20	26-Nov-20	10-Nov-20	2-Dec-20	22	724	8-Dec-20	6	197
301	PENNYRILE RURAL ELECTRIC COOP C	17-Dec-20	32	32	CHECK	17-Nov-20	17-Dec-20	2-Dec-20	29-Dec-20	27	873	5-Jan-21	7	226
302	PENNYRILE RURAL ELECTRIC COOP C	29-Dec-20	144	144	CHECK	29-Nov-20	29-Dec-20	14-Dec-20	4-Jan-21	21	3,020	11-Jan-21	7	1,007
303	PENNYRILE RURAL ELECTRIC COOP C	17-Jan-21	28	28	CHECK	17-Dec-20	17-Jan-21	1-Jan-21	25-Jan-21	24	678	1-Feb-21	7	198
304	PENNYRILE RURAL ELECTRIC COOP C	17-Jan-21	13	13	CHECK	17-Dec-20	17-Jan-21	1-Jan-21	25-Jan-21	24	316	1-Feb-21	7	92
305	PENNYRILE RURAL ELECTRIC COOP C	17-Jan-21	65	65	CHECK	17-Dec-20	17-Jan-21	1-Jan-21	25-Jan-21	24	1,548	1-Feb-21	7	452
306	PENNYRILE RURAL ELECTRIC COOP C	20-Jan-21	37	37	CHECK	20-Dec-20	21-Jan-21	5-Jan-21	25-Jan-21	20	730	1-Feb-21	7	256
307	PENNYRILE RURAL ELECTRIC COOP C	17-Mar-21	35	35	CHECK	16-Feb-21	17-Mar-21	2-Mar-21	22-Mar-21	20	696	26-Mar-21	4	139
308	QUALITY SERVICE PLUMBING	20-Apr-20	455	455	CHECK	20-Apr-20	20-Apr-20	20-Apr-20	18-May-20	28	12,740	27-May-20	9	4,095
309	QUINT UTILITIES AND EXCAVATION	30-Jul-20	23,500	23,500	CHECK	30-Jul-20	30-Jul-20	30-Jul-20	17-Aug-20	18	423,000	28-Aug-20	11	258,500
310	QUINT UTILITIES AND EXCAVATION	21-Sep-20	300	300	CHECK	21-Sep-20	21-Sep-20	21-Sep-20	23-Sep-20	2	600	26-Oct-20	33	9,900
311	REPUBLIC SERVICES	20-Jun-20	100	100	Direct Deposit	1-Jul-20	31-Jul-20	16-Jul-20	6-Jul-20	(10)	(996)	6-Jul-20	0	-
312	REPUBLIC SERVICES	20-Jul-20	115	115	Direct Deposit	1-Aug-20	31-Aug-20	16-Aug-20	31-Jul-20	(16)	(1,842)	31-Jul-20	0	-
313	REPUBLIC SERVICES	15-Sep-20	521	521	Direct Deposit	1-Oct-20	31-Oct-20	16-Oct-20	29-Sep-20	(17)	(8,857)	29-Sep-20	0	-
314	REPUBLIC SERVICES	25-Sep-20	1,221	1,221	Direct Deposit	1-Oct-20	31-Oct-20	16-Oct-20	13-Oct-20	(3)	(3,662)	13-Oct-20	0	-
315	REPUBLIC SERVICES	25-Sep-20	920	920	Direct Deposit	1-Oct-20	31-Oct-20	16-Oct-20	9-Oct-20	(7)	(6,439)	9-Oct-20	0	-
316	REPUBLIC SERVICES	25-Nov-20	1,217	1,217	Direct Deposit	1-Dec-20	31-Dec-20	16-Dec-20	17-Dec-20	1	1,217	17-Dec-20	0	-
317	REPUBLIC SERVICES	28-Feb-21	374	374	Direct Deposit	1-Mar-21	31-Mar-21	16-Mar-21	15-Mar-21	(1)	(374)	15-Mar-21	0	-
318	RICOH USA INC	6-Jul-20	3,718	3,718	CHECK	1-May-20	31-Jul-20	15-Jun-20	3-Aug-20	49	182,164	11-Aug-20	8	29,741
319	Sanderson, Jackson (Jackson)	29-May-20	33	33	Direct Deposit	18-May-20	18-May-20	18-May-20	2-Jun-20	15	494	2-Jun-20	0	-
320	Sanderson, Jackson (Jackson)	22-Jul-20	71	71	Direct Deposit	10-Jul-20	21-Jul-20	15-Jul-20	24-Jul-20	9	642	24-Jul-20	0	-
321	SCOTT WASTE SERVICES INC	27-Aug-20	61	61	CHECK	1-Aug-20	31-Aug-20	16-Aug-20	16-Sep-20	31	1,900	29-Sep-20	13	797
322	SELECT SECURITY	27-Apr-20	225	225	CHECK	27-Apr-20	27-Apr-20	27-Apr-20	18-May-20	21	4,725	27-May-20	9	2,025
323	SELECT SECURITY	28-Apr-20	132	132	CHECK	27-Mar-20	27-Mar-20	27-Mar-20	18-May-20	52	6,864	27-May-20	9	1,188

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

Line No.	Vendor	Invoice Date	Invoice Amount	Division 009 Amount	Payment Type	Service Period From	Service Period To	Midpoint Service Service	Date Paid	Payment lag	Weighted Payment Lag	Date Cleared	Clearing Lag	Weighted Clearing Lag
324	SENSIT TECHNOLOGIES	30-Oct-20	264	280	CHECK	30-Oct-20	30-Oct-20	30-Oct-20	16-Nov-20	17	4,765	24-Nov-20	8	2,242
325	SENSONICS INC	14-Aug-20	50	50	Direct Deposit	14-Aug-20	14-Aug-20	14-Aug-20	21-Aug-20	7	350	21-Aug-20	0	-
326	SHELBYVILLE MUNICIPAL WATER AND	30-Dec-20	29	29	CHECK	13-Nov-20	14-Dec-20	28-Nov-20	11-Jan-21	44	1,268	19-Jan-21	8	231
327	SHELLY TOLES PLUMBING INC	19-Feb-21	125	125	CHECK	19-Feb-21	19-Feb-21	19-Feb-21	1-Mar-21	10	1,250	5-Mar-21	4	500
328	SITEX CORPORATION	30-Jun-20	1,789	1,789	CHECK	1-Jun-20	30-Jun-20	15-Jun-20	27-Jul-20	42	75,138	4-Aug-20	8	14,312
329	SITEX CORPORATION	31-Dec-20	1,461	1,461	CHECK	7-Dec-20	28-Dec-20	17-Dec-20	25-Jan-21	39	56,984	1-Feb-21	7	10,228
330	Smith, Darrel R (Darrel)	11-Jun-20	46	46	Direct Deposit	11-Jun-20	12-Jun-20	11-Jun-20	2-Jul-20	21	975	2-Jul-20	0	-
331	SOUTH HOPKINS WATER DISTRICT	16-Jun-20	27	27	CHECK	21-May-20	16-Jun-20	3-Jun-20	1-Jul-20	28	759	9-Jul-20	8	217
332	SOUTH HOPKINS WATER DISTRICT	16-Jul-20	13	13	CHECK	16-Jun-20	16-Jul-20	1-Jul-20	12-Aug-20	42	551	20-Aug-20	8	105
333	STYLES BY JOE - JOES CLEANING SER	1-Dec-20	700	700	Direct Deposit	1-Dec-20	1-Dec-20	1-Dec-20	28-Dec-20	27	18,900	28-Dec-20	0	-
334	SUBLETT-BUNTON MYRA	13-Jan-21	848	848	CHECK	13-Jan-21	13-Jan-21	13-Jan-21	3-Feb-21	21	17,808	10-Feb-21	7	5,936
335	SUBMAR INC	29-Jul-20	26,767	26,767	Direct Deposit	30-Jul-20	30-Jul-20	30-Jul-20	24-Aug-20	25	669,178	24-Aug-20	0	-
336	SUPERIOR LAWN CARE	21-Aug-20	159	159	CHECK	21-Aug-20	21-Aug-20	21-Aug-20	31-Aug-20	10	1,590	14-Sep-20	14	2,226
337	TAYLOR COUNTY RURAL ELECTRIC C	6-Apr-20	18	18	CHECK	29-Feb-20	21-Mar-20	10-Mar-20	29-Apr-20	50	924	7-May-20	8	148
338	TAYLOR COUNTY RURAL ELECTRIC C	31-Jan-21	31	31	CHECK	31-Dec-20	31-Jan-21	15-Jan-21	24-Feb-21	40	1,231	3-Mar-21	7	215
339	TAYLOR COUNTY RURAL ELECTRIC C	3-Feb-21	15	15	CHECK	31-Dec-20	31-Jan-21	15-Jan-21	24-Feb-21	40	602	3-Mar-21	7	105
340	TIME WARNER CABLE	24-Sep-20	95	95	CHECK	24-Aug-20	24-Sep-20	8-Sep-20	5-Oct-20	27	2,562	14-Oct-20	9	854
341	TIME WARNER CABLE	3-Oct-20	29,021	1,085	CHECK	3-Sep-20	3-Oct-20	18-Sep-20	12-Oct-20	24	26,051	19-Oct-20	7	7,598
342	Tolbert, Ryan K (Ryan)	23-Apr-20	120	120	Direct Deposit	23-Apr-20	23-Apr-20	23-Apr-20	27-Apr-20	4	480	27-Apr-20	0	-
343	TRAILER AND TRACTOR SERVICE LLC	19-Aug-20	40	42	CHECK	18-Aug-20	18-Aug-20	18-Aug-20	14-Sep-20	27	1,145	22-Sep-20	8	339
344	TRI STATE METER AND REGULATOR S	3-Feb-21	664	664	CHECK	3-Feb-21	3-Feb-21	3-Feb-21	1-Mar-21	26	17,270	8-Mar-21	7	4,650
345	Tullis, Jimmie (Jimmie)	21-May-20	395	395	Direct Deposit	5-May-20	5-May-20	5-May-20	22-May-20	17	6,715	22-May-20	0	-
346	VALOR LLC	7-Dec-20	1,516	1,607	CHECK	7-Dec-20	7-Dec-20	7-Dec-20	22-Mar-21	105	168,764	26-Mar-21	4	6,429
347	VF IMAGEWEAR INC	15-Apr-20	59	59	Direct Deposit	15-Apr-20	15-Apr-20	15-Apr-20	11-May-20	26	1,547	11-May-20	0	-
348	VF IMAGEWEAR INC	1-Jun-20	158	158	Direct Deposit	1-Jun-20	1-Jun-20	1-Jun-20	26-Jun-20	25	3,947	26-Jun-20	0	-
349	VF IMAGEWEAR INC	18-Jun-20	322	322	Direct Deposit	18-Jun-20	18-Jun-20	18-Jun-20	13-Jul-20	25	8,044	13-Jul-20	0	-
350	VF IMAGEWEAR INC	16-Sep-20	300	300	Direct Deposit	16-Sep-20	16-Sep-20	16-Sep-20	13-Oct-20	27	8,099	13-Oct-20	0	-
351	VF IMAGEWEAR INC	7-Oct-20	262	262	Direct Deposit	7-Oct-20	7-Oct-20	7-Oct-20	2-Nov-20	26	6,814	2-Nov-20	0	-
352	VF IMAGEWEAR INC	14-Oct-20	148	148	Direct Deposit	14-Oct-20	14-Oct-20	14-Oct-20	9-Nov-20	26	3,848	9-Nov-20	0	-
353	VF IMAGEWEAR INC	22-Oct-20	129	129	Direct Deposit	22-Oct-20	22-Oct-20	22-Oct-20	16-Nov-20	25	3,231	16-Nov-20	0	-
354	VF IMAGEWEAR INC	26-Oct-20	296	296	Direct Deposit	26-Oct-20	26-Oct-20	26-Oct-20	20-Nov-20	25	7,394	20-Nov-20	0	-
355	VF IMAGEWEAR INC	28-Oct-20	141	141	Direct Deposit	28-Oct-20	28-Oct-20	28-Oct-20	23-Nov-20	26	3,679	23-Nov-20	0	-
356	VF IMAGEWEAR INC	28-Oct-20	238	238	Direct Deposit	28-Oct-20	28-Oct-20	28-Oct-20	23-Nov-20	26	6,189	23-Nov-20	0	-
357	VF IMAGEWEAR INC	10-Nov-20	252	252	Direct Deposit	10-Nov-20	10-Nov-20	10-Nov-20	7-Dec-20	27	6,798	7-Dec-20	0	-
358	VF IMAGEWEAR INC	10-Nov-20	288	288	Direct Deposit	10-Nov-20	10-Nov-20	10-Nov-20	7-Dec-20	27	7,786	7-Dec-20	0	-
359	VF IMAGEWEAR INC	7-Dec-20	145	145	Direct Deposit	7-Dec-20	7-Dec-20	7-Dec-20	4-Jan-21	28	4,047	4-Jan-21	0	-
360	VF IMAGEWEAR INC	18-Dec-20	534	534	Direct Deposit	18-Dec-20	18-Dec-20	18-Dec-20	12-Jan-21	25	13,355	12-Jan-21	0	-
361	VF IMAGEWEAR INC	12-Jan-21	156	156	Direct Deposit	12-Jan-21	12-Jan-21	12-Jan-21	8-Feb-21	27	4,202	8-Feb-21	0	-
362	VF IMAGEWEAR INC	9-Feb-21	438	438	Direct Deposit	9-Feb-21	9-Feb-21	9-Feb-21	8-Mar-21	27	11,829	8-Mar-21	0	-
363	VF IMAGEWEAR INC	22-Feb-21	410	410	Direct Deposit	22-Feb-21	22-Feb-21	22-Feb-21	19-Mar-21	25	10,258	19-Mar-21	0	-
364	VULCAN INC	14-Apr-20	253	253	Direct Deposit	14-Apr-20	14-Apr-20	14-Apr-20	11-May-20	27	6,843	11-May-20	0	-
365	WALDROP JERRY	20-Nov-20	159	159	CHECK	1-Nov-20	30-Nov-20	15-Nov-20	14-Dec-20	29	4,611	24-Dec-20	10	1,590
366	WALKERS TOWING SERVICE	23-Feb-21	425	451	CHECK	23-Feb-21	23-Feb-21	23-Feb-21	22-Mar-21	27	12,164	8-Apr-21	17	7,659
367	WARREN RURAL ELECTRIC COOP	30-Mar-20	25	25	CHECK	22-Feb-20	22-Mar-20	7-Mar-20	13-Apr-20	37	938	21-Apr-20	8	203
368	WARREN RURAL ELECTRIC COOP	23-Apr-20	23	23	CHECK	17-Mar-20	17-Apr-20	1-Apr-20	4-May-20	33	769	11-May-20	7	163
369	WARREN RURAL ELECTRIC COOP	22-May-20	22	22	CHECK	17-Apr-20	17-May-20	2-May-20	1-Jun-20	30	668	9-Jun-20	8	178
370	WARREN RURAL ELECTRIC COOP	9-Jun-20	24	24	CHECK	2-May-20	2-Jun-20	17-May-20	22-Jun-20	36	846	30-Jun-20	8	188
371	WARREN RURAL ELECTRIC COOP	12-Jun-20	23	23	CHECK	7-May-20	7-Jun-20	22-May-20	22-Jun-20	31	708	30-Jun-20	8	183
372	WARREN RURAL ELECTRIC COOP	6-Aug-20	27	27	CHECK	29-Jun-20	29-Jul-20	14-Jul-20	19-Aug-20	36	973	26-Aug-20	7	189
373	WARREN RURAL ELECTRIC COOP	20-Oct-20	49	49	CHECK	12-Sep-20	12-Oct-20	27-Sep-20	2-Nov-20	36	1,760	6-Nov-20	4	196
374	WARREN RURAL ELECTRIC COOP	18-Nov-20	48	48	CHECK	12-Oct-20	12-Nov-20	27-Oct-20	2-Dec-20	36	1,730	8-Dec-20	6	288
375	WEST DAVIESS CO WATER DISTRICT	31-Aug-20	4	4	CHECK	24-Jul-20	24-Aug-20	8-Aug-20	14-Sep-20	37	131	23-Sep-20	9	32
376	WEST KENTUCKY RURAL ELECTRIC	2-May-20	88	88	Direct Deposit	31-Mar-20	2-May-20	16-Apr-20	19-May-20	33	2,913	19-May-20	0	-
377	WEST KENTUCKY RURAL ELECTRIC	7-Aug-20	34	34	Direct Deposit	7-Aug-20	6-Sep-20	22-Aug-20	20-Aug-20	(2)	(68)	20-Aug-20	0	-

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

CWC WP 5-1

Line No.	Vendor	Invoice Date	Invoice Amount	Division 009 Amount	Payment Type	Service Period From	Service Period To	Midpoint Service Service	Date Paid	Payment lag	Weighted Payment Lag	Date Cleared	Clearing Lag	Weighted Clearing Lag
378	WILLIAMS PROFESSIONAL COATINGS	25-Aug-20	10,000	10,000	CHECK	25-Aug-20	25-Aug-20	25-Aug-20	9-Sep-20	15	150,000	21-Sep-20	12	120,000
379	WILSON HUTCHINSON POTEAT & LITTL	1-Feb-21	6,000	6,000	CHECK	16-Jan-21	29-Jan-21	22-Jan-21	24-Feb-21	33	198,000	8-Mar-21	12	72,000
380	WRIGHT IMPLEMENT	28-Jan-20	95	95	CHECK	26-Jan-20	26-Jan-20	26-Jan-20	5-Aug-20	192	18,152	14-Aug-20	9	851
381														
382	Totals			501,156							12,794,170			1,269,386
383														
384								Other O&M Payment Lag Days:			25.53			2.53

Atmos Energy Corporation-Kentucky
Other O&M Payment and Check Clearing Lag
For the CWC Study Test Year Ended March 31, 2021

CWC WP 5-2

Line No.	Vendor	Invoice Date	Invoice Amount	Division 009 Amount	Payment Type	Service Period From	Service Period To	Midpoint Service Service	Date Paid	Payment lag	Weighted Payment Lag	Date Cleared	Clearing Lag	Weighted Clearing Lag
	a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	= i -(h or b	*k = (j * d)*	*l*	*m = (l - i)*	*n = (m * d)*
1	ELEMENT FLEET	6-Apr-20	1,100,412	103,540	Direct Deposit	1-Mar-20	31-Mar-20	16-Mar-20	7-Apr-20	22	2,277,871	7-Apr-20	0	-
2	ELEMENT FLEET	5-May-20	1,155,527	97,455	Direct Deposit	1-Apr-20	30-Apr-20	15-Apr-20	8-May-20	23	2,241,476	8-May-20	0	-
3	ELEMENT FLEET	8-Jun-20	1,242,247	92,629	Direct Deposit	1-May-20	31-May-20	16-May-20	9-Jun-20	24	2,223,091	9-Jun-20	0	-
4	ELEMENT FLEET	6-Jul-20	1,132,601	96,045	Direct Deposit	1-Jun-20	30-Jun-20	15-Jun-20	8-Jul-20	23	2,209,036	8-Jul-20	0	-
5	ELEMENT FLEET	5-Aug-20	1,019,995	19,503	Direct Deposit	1-Jul-20	31-Jul-20	16-Jul-20	6-Aug-20	21	409,558	6-Aug-20	0	-
6	ELEMENT FLEET	8-Sep-20	1,028,842	74,098	Direct Deposit	1-Aug-20	31-Aug-20	16-Aug-20	9-Sep-20	24	1,778,340	9-Sep-20	0	-
7	ELEMENT FLEET	5-Oct-20	892,975	15,762	Direct Deposit	1-Sep-20	30-Sep-20	15-Sep-20	6-Oct-20	21	331,001	6-Oct-20	0	-
8	ELEMENT FLEET	10-Nov-20	903,733	44,364	Direct Deposit	1-Oct-20	31-Oct-20	16-Oct-20	12-Nov-20	27	1,197,839	12-Nov-20	0	-
9	ELEMENT FLEET	7-Dec-20	957,911	72,974	Direct Deposit	1-Nov-20	30-Nov-20	15-Nov-20	8-Dec-20	23	1,678,399	8-Dec-20	0	-
10	ELEMENT FLEET	5-Jan-21	1,026,422	72,232	Direct Deposit	1-Dec-20	31-Dec-20	16-Dec-20	6-Jan-21	21	1,516,871	6-Jan-21	0	-
11	ELEMENT FLEET	5-Feb-21	1,241,727	38,442	Direct Deposit	1-Jan-21	31-Jan-21	16-Jan-21	9-Feb-21	24	922,617	9-Feb-21	0	-
12	ELEMENT FLEET	8-Mar-21	1,063,457	81,982	Direct Deposit	1-Feb-21	28-Feb-21	14-Feb-21	9-Mar-21	23	1,885,585	9-Mar-21	0	-
13														
14				809,026							18,671,684			-
15														
16	Total Normalized Other O&M			20,113,734				Other O&M Payment Lag Days:			23.08			0.00
17														
18	Element Fleet Percent of Total			4.02%										
19														
20	O&M Sample Excluding Element Fleet			501,093										
21														
22	O&M Sample with Element Fleet at percent of total from above			522,093										
23														
24	Adjusted Element Fleet amount in sample			21,000										

ATO-CWC6

Atmos Energy Corporation-Kentucky
Taxes Other Than Income Taxes
For the CWC Study Test Year Ended March 31, 2021

Line No.	Description (a)	As Adjusted $ Amount (b)	Lag Days (c)	Weighted Lag Days (d)
1	**Payroll Taxes:**			
2	FICA - Paid on the day before each payday:	0	13.0	-
3				
4	Federal Unemployment - Paid quarterly in arrears at the			
5	end of the month following each quarter plus payroll service lag:	0	83.6	-
6				
7	State Unemployment - Paid quarterly in arrears at the end			
8	end of the month following each quarter plus payroll service lag:	355,960	83.6	83.63
9				
10	**Total Payroll Taxes**	355,960		83.63
11				
12	**Division Ad Valorem - Previous calendar year taxes are paid**			
13	**45 days after billed for state agencies and 30 days after**			
14	**billed for local agencies**			346.39
15				
16	**Shared Services Ad Valorem - Previous calendar year**			
17	**taxes are paid by January 31 of the current calendar year**			213.50
18				
19	**Taxes property and other**			58.82
20				
21	**Franchise and Other Pass Through Taxes**			40.19
22				
23	**Public Service Commission Assessment**			
24	**Assessment are prepaid to the Commission annually and**			
25	**are included in prepayments in rate base**			0.00
26				
27	**DOT - Payment for the pipeline safety user fee for the**			
28	**current fiscal year is due by May 30th**			59.00

ATO-CWC7

Atmos Energy Corporation-Kentucky
Federal Income Taxes
For the CWC Study Test Year Ended March 31, 2021

Line No.	Due Date (a)	Begin Test Period (c)	End Test Period (d)	Midpoint (e)	Weight (f)	Lead/Lag Days (g)	Weighted Lead/Lag Days
1	**Federal Income Tax Payments:**						
2	June 15, 2020	4/1/2020	3/31/2021	182.50	25.00%	(107.50)	(26.88)
3	September 15, 2020	4/1/2020	3/31/2021	182.50	25.00%	(15.50)	(3.88)
4	December 15, 2020	4/1/2020	3/31/2021	182.50	25.00%	75.50	18.88
5	March 15, 2020	4/1/2020	3/31/2021	182.50	25.00%	(199.50)	(49.88)
6							
7					100.00%		(61.75)

ATO-CWC8

Atmos Energy Corporation-Kentucky
State Income Taxes
For the CWC Study Test Year Ended March 31, 2021

Line No.	Due Date	Begin Test Period	End Test Period	Midpoint	Weight	Lead/Lag Days	Weighted Lead/Lag Days
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	**State Income Tax Payments:**						
2	June 15, 2020	4/1/2020	3/31/2021	182.50	25.00%	(107.50)	(26.88)
3	September 15, 2020	4/1/2020	3/31/2021	182.50	25.00%	(15.50)	(3.88)
4	December 15, 2020	4/1/2020	3/31/2021	182.50	25.00%	75.50	18.88
5	March 15, 2020	4/1/2020	3/31/2021	182.50	25.00%	(199.50)	(49.88)
6							
7					100.00%		(61.75)

ATO-CWC9

Atmos Energy Corporation-Kentucky
Long Term Debt
For the CWC Study Test Year Ended March 31, 2021

Atmos Consolidated Balances

Line No.	Lender	Maturity	Type of Payment	Pymt 1	Pymt 2	Pymt 3	Pymt 4	Pymt 5	Pymt 6	Pymt 7	Pymt 8	Pymt 9	Pymt 10	Pymt 11	Pymt 12	Lead/Lag Days	Annual Interest	% of Total Interest	Weighted $
	(a)	(b)																	
1	MTN 1995-1	12/31/2025	SEMI ANNUAL	6/15/2020	12/15/2020											91.25	$ 667,000	0.35%	0.32
2	Debentures	07/15/28	SEMI ANNUAL	7/15/2020	1/15/2021											91.25	$ 10,125,000	5.34%	4.87
3	SrNote 5.95%	10/15/34	SEMI ANNUAL	4/15/2020	10/15/2020											91.25	$ 11,900,000	6.28%	5.73
4	SrNote 3.00%	06/15/2027	SEMI ANNUAL	6/15/2020	12/15/2020											91.25	$ 15,000,000	7.91%	7.22
5	Sr Note 5.50%	06/15/2041	SEMI ANNUAL	6/15/2020	12/15/2020											91.25	$ 22,000,000	11.60%	10.59
6	SrNote 4.15%	1/15/2043	SEMI ANNUAL	7/15/2020	1/15/2021											91.25	$ 20,750,000	10.95%	9.99
7	SrNote 4.125%	10/15/2044	SEMI ANNUAL	4/15/2020	10/15/2020											91.25	$ 30,937,500	16.32%	14.89
8	SrNote 4.300%	10/1/2048	SEMI ANNUAL	4/1/2020	10/1/2020											91.25	$ 25,800,000	13.61%	12.42
	SrNote 4.125%	3/15/2049	SEMI ANNUAL	9/15/2020	3/15/2021											91.25	$ 18,562,500	9.79%	8.93
	SrNote 2.625%	9/15/2029	SEMI ANNUAL	9/15/2020	3/15/2021											91.25	$ 7,875,000	4.15%	3.79
	SrNote 3.375%	9/15/2049	SEMI ANNUAL	9/15'/2020	3/15/2021											91.25	$ 16,875,000	8.90%	8.12
	SrNote 1.5%	1/15/2031	SEMI ANNUAL	1/15/2021												91.25	$ 4,500,000	2.37%	2.17
9	LTD Term Loan Varied	4/9/2021	QUARTERLY	7/9/2020	10/9/2020	1/11/2021	10/31/2017	11/30/2017	12/29/2017	1/31/2018	2/28/2018	3/29/2018	4/30/2018	5/31/2018	6/29/2018	91.25	$ 4,590,139	2.42%	2.21
10																			
11	WEIGHTED AVERAGE LEAD DAYS OF LONG TERM DEBT EXPENSE																$ 189,582,139	100.00%	91.25

BEFORE THE PUBLIC SERVICE COMMISSION

COMMONWEALTH OF KENTUCKY

APPLICATION OF ATMOS ENERGY	**)**	
	)	
CORPORATION FOR AN ADJUSTMENT	**)**	**Case No. 2021-00214**
	)	
OF RATES AND TARIFF MODIFICATIONS	**)**	

TESTIMONY OF MICHELLE H. FAULK

INDEX TO THE DIRECT TESTIMONY
OF MICHELLE H. FAULK, WITNESS FOR
ATMOS ENERGY CORPORATION

I. POSITION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Michelle H. Faulk. My business address is 5430 LBJ Freeway, Suite 600, Dallas, Texas 75240

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am the Director of Accounting Services and Financial Reporting for Atmos Energy Corporation (hereinafter "Atmos Energy" or the "Company").

Q. WHAT ARE YOUR JOB RESPONSIBILITIES?

A. I am primarily responsible for directing various accounting and financial reporting activities and policies within the Company. My main duties include the oversight of general accounting, fixed assets accounting, payroll, cost allocations and internal and external financial reporting. I also serve on an internal committee which is responsible for the oversight and monitoring of Sarbanes-Oxley (SOX) compliance. In addition, I work with both our internal and external auditors on implementing, testing, maintaining and modifying the Company's accounting controls, as well as interfacing between the auditors and the Company.

I am also responsible for ensuring effective financial and internal controls for the Company's accounting and financial reporting processes, systems and procedures. I have knowledge of the Company's accounting and financial reporting activities, which include compiling, processing, reporting and analyzing financial information to satisfy the requirements of internal management, internal independent auditors, external independent auditors and regulatory agencies.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I earned a Bachelor of Business Administration degree in Accounting from Texas Christian University in 2000. I also earned a Master of Accounting degree from Texas Christian University in 2001.

Before joining Atmos Energy, I worked in public accounting at KPMG LLP for approximately seven years, serving clients across multiple industries. I joined Atmos Energy in July 2009 as the Manager of Financial Reporting and assumed the role of Director of Financial Reporting in February 2017. In November 2020, I assumed my current role of Director of Accounting Services and Financial Reporting. Since assuming the role of the Director of Accounting Services and Financial Reporting, I have worked to maintain the Company's Cost Allocation Manual ("CAM") to ensure it was aligned with Atmos Energy's recordkeeping practices.

Q. ARE YOU A MEMBER OF ANY PROFESSIONAL ORGANIZATIONS?

A. Yes. I am licensed by the State of Texas as a Certified Public Accountant ("CPA").

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION OR OTHER REGULATORY ENTITIES?

A. No.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to authenticate the historical books and records of the Company and demonstrate the integrity of the financial information that has been filed in this case. I am also providing testimony concerning the CAM, which describes the methodology for shared services cost allocations.

Q. ARE YOU SPONSORING ANY OF THE FILING REQUIREMENT IN THIS CASE, AND, IF SO WHICH REQUIREMENTS?

A. Yes, I am sponsoring the following specific filing requirements of Section 16 of 807 K.A.R. 5:001:

FR 16(7)(i)	The most recent Federal Energy Regulatory Commission or Federal Communications Commission audit reports;
FR 16(7)(j)	The prospectuses of the most recent stock or bond offerings;
FR 16(7)(k)	Most recent FERC Form 1 (electric), FERC Form 2, or the Automated Reporting Management Information System Report (telephone) and PSC Form T (telephone);
FR 16(7)(l)	The annual report to shareholders or members and the statistical supplements covering the most recent two (2) years from the application filing date;
FR 16(7)(m)	Current chart of accounts if more detailed than Uniform System of Accounts chart;

FR 16(7)(n)	The latest twelve (12) months of the monthly managerial reports providing financial results of operations in comparison to the forecast;
FR 16(7)(o)	Complete monthly budget variance reports, with narrative explanations, for the twelve (12) months immediately prior to the base period, each month of the base period, and any subsequent months, as they become available;
FR 16(7)(p)	A copy of the utility's annual report on Form 10-K as filed with the Securities and Exchange Commission for the most recent two (2) years, and any Form 8-K issued during the past two (2) years, and any Form 10-Q issued during the past six (6) quarters; FR 16(7)(q) Independent auditors annual opinion report, with any written communication which indicates the existence of a material weakness in internal controls; and
FR 16(7)(q)	The independent auditor's annual opinion report, with any written communication from the independent auditor to the utility that indicates the existence of a material weakness in the utility's internal controls;
FR 16(7)(r)	Quarterly reports to stockholders for the most recent five quarters.

FR 16(7)(u)	Detailed description of method of calculation and amounts allocated or charged to utility by affiliate or general or home office for each allocation or payment; Method and amounts allocated during base period and method and estimated amounts to be allocated during forecasted test period; Explain how allocator for both base and forecasted test period was determined; and All facts relied upon, including other regulatory approval, to demonstrate that each amount charged, allocated or paid during base period is reasonable;
FR 16(8)(i)	Comparative income statements (exclusive of dividends per share or earnings per share), revenue statistics and sales statistics for the five (5) most recent calendar years from the application filing date, the base period, the forecasted period, and two (2) calendar years beyond the forecast period;
FR 16(8)(k)	Comparative financial data and earnings measures for the ten (10) most recent calendar years, the base period, and the forecast period;

Q. DO YOU ADOPT THESE FILING REQUIREMENTS AND MAKE THEM PART OF YOUR TESTIMONY?

A. Yes.

III. AUTHENTICATION OF BOOKS AND RECORDS

Q. ARE THE BOOKS AND RECORDS OF THE COMPANY PREPARED UNDER YOUR DIRECTION?

A. Yes, for the areas under my direction (which do not include gas accounting or taxation).

Q. HOW DOES ATMOS ENERGY MAINTAIN AND UTILIZE ITS BOOKS AND RECORDS IN THE REGULAR COURSE OF BUSINESS?

A. Atmos Energy maintains its books and records in accordance with the Federal Energy Regulatory Commission's (FERC) Uniform System of Accounts (USOA) and Generally Accepted Accounting Principles (GAAP). The USOA is the prescribed methodology for maintaining utility records in all of the state jurisdictions which regulate the Company's natural gas utility operations, which currently include Colorado, Kansas, Kentucky, Louisiana, Mississippi, Tennessee, Texas and Virginia.

Atmos Energy's accounting organization utilizes integrated computerized business systems to efficiently process, record and maintain transactions generated in the regular course of business. Financial transactions are created and entered into the system at or near the time of the transaction by the responsible personnel in various divisions having personal knowledge, or acting in reliance on information transmitted by persons having personal knowledge of the transactions, as well as of the applicable accounting procedures and requirements. Reports are generated by the system in the regular course of business to assist in management's review of the results of operations and to assist in the analysis of the cost data of gas operations.

Q. AS THE DIRECTOR OF ACCOUNTING SERVICES AND FINANCIAL REPORTING, HOW DO YOU ASSURE YOURSELF THAT TRANSACTIONS ARE RECORDED PROPERLY?

A. As the Director of Accounting Services and Financial Reporting, I have personal knowledge of the organizational business processes and staffing in the Controllership function. The Controller's organization is staffed with highly qualified accounting managers and staff, with many accounting positions filled by CPAs. The managers in the organization are charged with the responsibility to inspect, review and revise, if appropriate, the work of the accountants they supervise. To fill certain management positions, an individual is required to have an accounting degree as well as significant accounting experience. We have established and maintained controls that ensure the accuracy of our books and records. These controls help identify any necessary adjustments to accounting entries which are then recorded to the original books and records in a timely manner. Additionally, Atmos Energy contracts with KPMG LLP ("KPMG") for internal audit services. This group periodically performs reviews of those controls.

Q. WHAT TYPES OF REGULAR AUDITS ARE CONDUCTED TO AUTHENTICATE ATMOS ENERGY'S BOOKS AND RECORDS?

A. Atmos Energy's books and records are audited annually by the independent public accounting firm of Ernst & Young LLP ("EY"). In addition, EY also performs reviews of Atmos Energy's quarterly financial statements. These audits and reviews are conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States).

Q. ARE THE COSTS RECORDED ON THE COMPANY'S BOOKS AND RECORDS SUPPORTED BY UNDERLYING INVOICES OR OTHER RECORDS?

A. Yes. In order for an item to be recorded in the Company's general ledger, there must be an invoice or other underlying supporting documentation. The former, for example, may be in the form of a billing invoice received from a vendor. The latter, for example, may be in the form of an employee's timesheet. The manager of a specific cost center or project is responsible for reviewing, coding and approving invoices or other underlying supporting documentation that are charged to that particular manager's cost center or project.

Q. WHAT DO YOU MEAN BY COST CENTERS?

A. As described in the Company's CAM, a cost center is a designation generally utilized for the assignment of departmental cost responsibility and internal management reporting. Employees with responsibility for these functional areas are delegated a certain level of authority to conduct the business of the Company.

Q. HOW ARE THESE AUTHORITY LEVELS DETERMINED OR DELEGATED WITHIN THE COMPANY?

A. The Board of Directors initially delegates authority to the chief executive officer of the Company who then authorizes the controller to further delegate authority to others throughout the Company as necessary. The Controller's approval of authority limits is generally based on a review of the needs and recommendations from those requesting authority limit changes. Approved authority limits are maintained in a secure table within the Company's accounting system.

Q. DOES THE COMPANY HAVE IN PLACE ANY PROCESS OR SYSTEM FOR THE REVIEW AND VALIDATION OF INVOICES?

A. Yes. Most invoices are scanned into an accounts payable processing system called "Markview" when they are received by the Company. Once scanned, an image of the invoice is routed electronically to the appropriate cost center owner. The cost center owner reviews and electronically codes and approves the invoice within the established approval hierarchy. As a part of this process, the cost center owner is responsible for ensuring the cost is valid, just, and reasonable. If the amount of the invoice exceeds the authority limit of the initial approver, it is automatically escalated through the approval hierarchy to a person with the appropriate level of authority. A similar review process is performed at each level within the approval hierarchy. Once final approval has been obtained, the invoice is submitted to the accounts payable department for final payment.

Q. DOES THE COMPANY HAVE IN PLACE ANY PROCESS OR SYSTEM FOR THE REVIEW AND VALIDATION OF COSTS THAT ARE NOT PROCESSED THOUGH MARKVIEW?

A. Yes. Certain invoices and other requests for payment that are not presented as an invoice are processed outside of Markview. Examples of these types of documents include, but are not limited to, tax returns, contracts for certain outside services, or certain wire transfer requests. The process for the review, coding and approval of these costs is the same, except that the process may be manual in nature rather than electronic. The Company employee in charge of this documentation is responsible for ensuring the cost is valid, just, and reasonable. Coding and approvals are performed within the approval hierarchy. Once final approval has been obtained, the documentation is submitted to the accounts payable department for final payment.

Q. ARE THERE ANY OTHER ACCOUNTING CONTROLS OR PROCESSES IN PLACE TO ENSURE THE ACCURACY OF THE COMPANY'S BOOKS AND RECORDS?

A. Yes. The Company executes a series of detective monitoring controls designed to identify and explain material and/or unusual costs that have been recorded in the general ledger. Occasionally, errors are found and they are typically corrected in the following month's reporting period, unless they are material. If material, these errors are corrected in the current month.

Additionally, the Chief Executive Officer and Chief Financial Officer must certify the Company's annual and quarterly financial statements and must attest to and report on the Company's system of internal control. To facilitate this effort, the Company outsources its internal audit function to KPMG to conduct tests of the Company's system of internal control. These tests are developed to ensure the system of internal control has been designed effectively and that the controls are functioning as designed as of the end of the Company's fiscal year.

Q. PLEASE DESCRIBE THE PROCESS USED TO TEST INTERNAL CONTROLS.

A. The Company maintains a SOX steering committee, which is responsible for the oversight and monitoring of Sarbanes-Oxley compliance. This committee is comprised of myself, the Vice President and Controller, the Vice President and Chief Information Officer, the Director of Gas Accounting and Rate Administration, the Director of Information Security and the Director of IT Engineering and Operations.

During the first quarter of the fiscal year, the company meets with the internal auditors to review our listing of key controls to assess whether changes to that list should be made based upon changes in the risk profile or organization of the company. A key control is defined as a control necessary to mitigate the risks and ensure financial reporting is reasonable and materially correct. The internal audit group will develop a testing plan based upon these key controls that is reviewed and approved by the SOX steering committee. The key controls are tested throughout the year. If issues arise, they are individually addressed by a steering committee member who has knowledge of the affected areas. The SOX steering committee meets regularly to assess the progress and review the results of the testing. During this process, all findings are discussed and the steering committee will determine whether the finding should be considered a control deficiency, a significant deficiency or a material weakness. A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of the company's financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.

At the end of the fiscal year, the steering committee makes recommendations regarding the effectiveness of the Company's internal control structure to be included in the internal auditor's final report to the audit committee.

Q. PLEASE SUMMARIZE THE RESULTS OF TESTING FOR THE MOST RECENTLY COMPLETED FISCAL YEAR.

A. The most recent fiscal year for which results are available is fiscal 2020. A total of 289 key controls related to the Company's operations were tested. One control deficiency was identified. No significant deficiencies or material weaknesses were identified. Subject to the closing of the fiscal year, the one deficiency was remediated in fiscal 2021.

Q. ARE THESE CONTROL DEFICIENCIES THE SAME DEFICIENCIES THAT WERE IDENTIFIED BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2018-00281?

A. No. The deficiencies identified in fiscal 2020 are not the same deficiencies identified before the Kentucky Public Service Commission in Case No. 2018-00281.

Q. ARE THE COMPANY'S TESTS OF INTERNAL CONTROL SUBJECT TO EXAMINATION BY AN INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM?

A. Yes. As a publicly traded company, Atmos Energy is required to have an independent registered public accounting firm audit management's public assertions regarding the Company's system of internal control. EY serves as the Company's independent registered public accounting firm.

Q. CAN YOU SUMMARIZE THE PROCESS USED BY EY TO PERFORM ITS ATTEST FUNCTION?

A. Yes. EY will perform independent tests regarding the design of the Company's internal control function and the effectiveness of the controls as of the end of the fiscal year. They will rely, in part, on the work performed by the internal auditors in completing their audit procedures. Upon completion of their work, EY will issue an audit report summarizing their findings, which is included in the Company's annual report on Form 10-K.

Q. DID EY'S MOST RECENT REPORT DIFFER FROM THE FINDINGS OF MANAGEMENT?

A. No. EY issued an unqualified audit report for fiscal 2020 which means that they agreed with management's assertions.

Q. ARE THERE OTHER TYPES OF REGULAR AUDITS AND REVIEWS THAT ARE CONDUCTED OF ATMOS ENERGY'S BOOKS AND RECORDS?

A. Yes. In addition to the audit of internal control, EY also conducts an annual audit of Atmos Energy's books and records. In addition, EY performs reviews of Atmos Energy's quarterly financial statements. These audits and reviews are conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States).

Q. HOW DOES THE ACCOUNTING SYSTEM ALLOW FOR THE SEPARATE RECORDING AND TRACKING OF COSTS FOR ATMOS ENERGY'S UTILITY DIVISIONS?

A. Direct costs are charged directly to the natural gas distribution division which has incurred the costs. In addition, technical and support services are provided to the distribution divisions by centralized shared services departments primarily located at the Atmos Energy headquarters in Dallas. These centralized functions include, but are not limited to, accounting, human resources, legal, treasury, risk management, etc. The costs for these shared services are allocated to the operating divisions.

Q. WERE THE BOOKS AND RECORDS OF THE COMPANY PROVIDED TO COMPANY WITNESSES FOR UTILIZATION IN THEIR ANALYSIS FOR RATEMAKING PURPOSES?

A. Yes.

IV. <u>COST ALLOCATION MANUAL</u>

Q. WHAT IS THE COST ALLOCATION MANUAL?

A. The Cost Allocation Manual (CAM), contained in Exhibit MHF-1, describes and documents the process whereby allocations are made within the books and records of the Company. These include allocations of various common expenses which are incurred for the benefit of two or more of the Company's rate divisions and are therefore allocable to those rate divisions. Additionally, the CAM also describes and documents the processes whereby allocations are made between Atmos Energy and its affiliates and between affiliates.

Q. PLEASE DESCRIBE THE HISTORY OF THE CAM.

A. Although the Company had been utilizing the allocation methodology described in the CAM for many years prior, the CAM was formally documented in response to 807 K.A.R. 5:080, and was first filed with the Commission in April of 2001. Atmos Energy is required to update the CAM each year. The Company has used the CAM to document its allocation processes in the regular course of business since it was first filed.

Q. ARE THE ALLOCATIONS DESCRIBED IN THE CAM USED IN EVERY JURISDICTION IN WHICH ATMOS ENERGY OPERATES?

A. Yes. The CAM is uniformly applied in all eight states in which Atmos Energy has regulated utility operations for the allocation of common costs among Atmos Energy's various operating divisions, including Kentucky.

Q. DOES THE CAM DESCRIBE HOW TO ALLOCATE BALANCE SHEET AMOUNTS?

A. No. The CAM describes how to allocate expense items from Atmos Energy's income statement. Investment or balance sheet items are not allocated within Atmos Energy's books and records. Investment amounts are allocated only for ratemaking purposes in the context of a rate filing or certain regulatory reports.

Q. IN YOUR OPINION, DOES THE COMPANY'S ALLOCATION PROCESS UNIFORMLY AND CONSISTENTLY ALLOCATE COMMON OR SHARED SERVICES COSTS?

A. Yes, the allocation process described in the CAM operates fairly and reasonably in allocating those costs on a uniform basis, both as between Atmos Energy's various operating divisions and affiliates and between the various regulatory jurisdictions in which the Company operates.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF)
RATE APPLICATION OF) Case No. 2021-00214
ATMOS ENERGY CORPORATION)

CERTIFICATE AND AFFIDAVIT

The Affiant, Michelle H. Faulk, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared direct testimony of this affiant in Case No. 2021-00214, in the Matter of the Rate Application of Atmos Energy Corporation, and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared direct pre-filed testimony.

Michelle H. Faulk
Michelle H. Faulk

STATE OF TEXAS

COUNTY OF DALLAS

SUBSCRIBED AND SWORN to before me by Michelle H. Faulk on this the 17 day of June, 2021.

Notary Public
My Commission Expires: 5/25/22

MARIA S. WILSON
Notary Public, State of Texas
Comm. Expires 05-25-2022
Notary ID 131582768

Exhibit MHF-1

ATMOS ENERGY CORPORATION
COST ALLOCATION MANUAL
April 1, 2021

Exhibit MHF-1

TABLE OF CONTENTS

1. Introduction:

a. Corporate Structure

Atmos Energy Corporation (Atmos or the Company) operates its Regulated Operations through seven operating divisions in 8 states. The seven operating divisions and their service areas are:

Division	Service Area
Atmos Energy Colorado-Kansas Division	Colorado, Kansas
Atmos Energy Kentucky/Mid-States Division	Kentucky, Tennessee, Virginia
Atmos Energy Louisiana Division	Louisiana
Atmos Energy Mid-Tex Division	Texas, including the Dallas/Fort Worth metropolitan area
Atmos Energy Mississippi Division	Mississippi
Atmos Energy West Texas Division	West Texas
Atmos Pipeline – Texas Division	Intrastate pipeline business in Texas

These operating divisions are not subsidiaries or separate legal entities. Therefore, by definition, they cannot be considered affiliates of Atmos.

Technical and support services are provided to the operating divisions by centralized shared services departments primarily located at the Atmos headquarters in Dallas. These centralized functions currently include, but are not limited to, accounting, gas supply, human resources, information technology, legal, rates and customer support. The costs for these shared services are allocated to the operating divisions. In addition, for operating divisions that operate in more than one rate jurisdiction, costs from an operating division's general office are allocated to separate rate divisions within the operating division.

Atmos Energy Holdings, Inc. is a wholly owned subsidiary of Atmos. Atmos Energy Holdings and its various wholly owned subsidiaries are separate legal entities and are considered affiliates of Atmos.

The Company's current legal entity organization chart is contained in Appendix A.

Note that the descriptions contained herein do not address tariffed services.

b. Accounting:

Atmos' account coding structure enables it to capture the costs for allocable activities. Expenses, assets, and liabilities for Atmos' shared services and other operating division general office divisions are coded to applicable location codes and cost centers as necessary, and are then allocated to the appropriate rate divisions based upon the methodologies described herein. Allocations recorded in the books and records of the Company are primarily for management control purposes and may not reflect the allocation methodology used for rate making purposes.

Atmos' account coding structure is as follows:

XXX. XXXX. XXXX. XXXXX. XXXXXX. XXXX

Company	Cost Center	FERC Account	Sub-Account	Service Area	Future Use
3 digit	4 digit	4 digits	5 digits	6 digits	4 digits

Within the above coding structure, "Company" and "Cost Center" are primarily utilized for internal management responsibility reporting purposes for Atmos' operating divisions. The terms "Company" and "Cost Center" are defined in the glossary beginning below. Utilization of the "Company" or "Cost Center" fields is not suitable for meaningful financial or regulatory reporting purposes.

The FERC account field contains the three-digit FERC USOA account plus one extension digit which in some cases is utilized by the FERC USOA.

The first three digits of the Service Area field are the primary coding utilized for cost allocations within Atmos and is generally referred to as "rate division number". This portion of the field denotes Atmos' various rate divisions as well as the Company's various shared services and operating division general office divisions. These codes are the primary source of information for regulatory reporting and rate activity. The remaining three digits represent "town" location which is utilized only for some accounts. Atmos Pipeline-Texas uses the final three digits of the service area to represent the actual storage or compressor facility; however, this is used for O&M expenses only.

c. Glossary of Terms:

The following terms are defined for purposes of this document only:

Affiliate - One or more of Atmos' subsidiaries.

Below the Line - Amounts which are generally not included in an analysis of costs from which gas service rates are derived.

Company - In general terms, it refers to Atmos Energy Corporation. Within the context of the account coding string, this term represents an operating division, wholly-owned subsidiary or other legal entity controlled by Atmos.

Composite Factor - The Company's general allocation factor which is derived for each applicable area based upon the simple average of gross plant in service, average number of customers and direct operation and maintenance expenses for each applicable area.

Corporate Headquarters - The headquarters of Atmos Energy Corporation located in Dallas, Texas.

Cost Centers - Account coding which denotes an area of cost responsibility. This coding is used primarily for management purposes.

Customer Factor - The Company's general allocation factor which is derived based on the average number of customers of the Operating Divisions that receive allocable costs for the services provided.

Direct Charges - Those charges which may originate in a shared services department or operating division general office division or a rate division which are booked directly to the applicable rate division.

FERC USOA - The Uniform System of Accounts as prescribed by the Federal Energy Regulatory Commission.

Municipal Jurisdiction - For Atmos' utility operations in Texas, each municipality which it serves has original jurisdiction over rates.

Operating Division - An unincorporated division of Atmos Energy Corporation that contains at least one rate division that is responsible for the management of the Company's Regulated Operations. Operating divisions are not subsidiaries or separate legal entities. As such, they do not have separate equity or debt structures. Additionally, the divisions do not keep separate books and records.
Operating divisions with multiple rate divisions have one operating division general office rate division in addition to rate divisions corresponding to regulatory jurisdictional areas.

Operating Division General Office - Administrative offices that are located outside of shared service offices which serve as the base of operations and central office for each "operating division."

Rate Division – Often referred to as an operating rate division, it denotes Atmos' regulatory jurisdictions that are defined by state and geographic boundaries. The term also denotes Atmos' various shared services and operating division general office divisions. These divisions are the primary source for regulatory reporting and rate activity for an area in which rates have been set by a regulatory authority such as the Colorado Public Utilities Commission. Rate divisions are identifiable in the Company's account coding string. As such, costs are accumulated within the general ledger and represent the sum of direct costs plus costs allocated to the rate division.

Regulated Operations – Represents the Company's six regulated natural gas distribution operating divisions operating in 8 states and the Company's regulated intrastate pipeline operations in the State of Texas.

Service Area - The portion of the Company's account coding structure of which the first three digits denote rate division. The last three digits of this code denote "town" which is used only in certain instances. Atmos Pipeline-Texas uses the final three digits of the service area to represent the actual storage or compressor facility; however, this is used for O&M expenses only.

Shared Services - The Company's functions that serve multiple rate divisions. These services include departments such as legal, billing, call center, accounting, information technology, human resources, gas supply, rates administration among others. Shared Services is comprised of Shared Services – General Office and Shared Services – Customer Support

Shared Services – Customer Support – Shared Services functions that include billing, customer call center functions and customer support related services.

Shared Services – General Office – Shared Services functions that include all other functions not encompassed by Shared Services – Customer Support.

The following are divisions of Atmos Energy Corporation:

Atmos Energy Colorado-Kansas Division is a regulated operating division that serves approximately 170 communities throughout Colorado and Kansas, including the cities of Olathe, Kansas, a suburb of Kansas City and Greeley, Colorado, located near Denver.

Atmos Energy Kentucky/Mid-States Division is a regulated operating division that operates Kentucky, Tennessee and Virginia. The service areas in these states are primarily rural; however, this division serves Franklin, Tennessee, and other suburban areas of Nashville.

Atmos Energy Louisiana Division is a regulated operating division that serves nearly 300 communities, including the suburban areas of New Orleans, the metropolitan area of Monroe and western Louisiana. Direct sales of natural gas to industrial customers in Louisiana, who use gas for fuel or in manufacturing processes, and sales of natural gas for vehicle fuel are exempt from regulation and are recognized in our Atmos Energy Louisiana Industrial Gas segment.

Atmos Energy Mid-Tex Division is a regulated operating division that serves approximately 550 incorporated and unincorporated communities in the north-central, eastern and western parts of Texas, including the Dallas/Fort Worth Metroplex. The governing body of each municipality we serve has original jurisdiction over all gas distribution rates, operations and services within its city limits, except with respect to sales of natural gas for vehicle fuel and agricultural use. The Railroad Commission of Texas (RRC) has exclusive appellate jurisdiction over all rate and regulatory orders and ordinances of the municipalities and exclusive original jurisdiction over rates and services to customers not located within the limits of a municipality.

Atmos Energy Mississippi Division is a regulated operating division that serves about 110 communities throughout the northern half of the state, including the Jackson metropolitan area.

Atmos Energy West Texas Division is a regulated operating division that serves approximately 80 communities in West Texas, including the Amarillo, Lubbock and Midland areas. Like our Mid-Tex Division, each municipality we serve has original jurisdiction over all gas distribution rates, operations and services within its city limits, with the RRC having exclusive appellate jurisdiction over the municipalities and exclusive original jurisdiction over rates and services provided to customers not located within the limits of a municipality.

Atmos Pipeline – Texas Division is one of the largest intrastate pipeline operations in Texas with a heavy concentration in the established natural gas producing areas of central, northern and eastern Texas, extending into or near the major producing areas of the Barnett Shale, the Texas Gulf Coast and the Delaware and Val Verde Basins of West Texas. APT provides transportation and storage services to our Mid-Tex Division, other third party local distribution companies, industrial and electric generation customers, as well as marketers and producers. As part of its pipeline operations, APT manages five underground storage reservoirs in Texas.

The following are affiliates of Atmos Energy Corporation:

Blueflame Insurance Services, LTD is a wholly-owned subsidiary of Atmos Energy Corporation that was created to provide cost-effective property insurance coverage for Atmos Energy and its subsidiaries. It was chartered in Bermuda effective December 16, 2003, and became operational as of January 1, 2004. It is incorporated under Bermuda's insurance law and regulations and is fully capitalized under the requirements of applicable Bermuda law.

Atmos Energy Services, LLC was established on April 1, 2004 to provide natural gas management services to Atmos Energy's natural gas distribution operations, other than the Mid-Tex Division. These services include aggregating and purchasing gas supply, arranging transportation and storage logistics and ultimately delivering the gas to Atmos Energy's natural gas distribution service areas at competitive prices. AES provided these services through December 31, 2006. Effective January 1, 2007, the gas supply department within shared services began providing these services. However, AES continues to provide limited services to the natural gas distribution operations of Atmos Energy.

Phoenix Gas Gathering Company is a wholly owned subsidiary of Atmos Gathering Company, LLC, and was created to develop, own and operate a non-regulated natural gas gathering system located in Kentucky.

Atmos Gathering Company, LLC is a wholly owned subsidiary of Atmos Pipeline and Storage, LLC and was created to conduct our non-regulated natural gas gathering operations.

Atmos Energy Holdings, Inc. is the parent company of Atmos Energy Corporation's non-utility operations.

Atmos Energy Louisiana Industrial Gas, LLC serves industrial customers in Louisiana who use gas for fuel, manufacturing and other processes.

Atmos Exploration and Production, Inc. holds some insignificant Kentucky production interests which the Company succeeded to when it acquired Western Kentucky Gas Company in 1989. This subsidiary is functionally inactive as the Company does not actively engage in the exploration and production business.

Atmos Pipeline and Storage, LLC owns or has an interest in underground storage fields in Kentucky and Louisiana. The utility divisions of Atmos Energy also use these storage facilities to reduce the need to contract for additional pipeline capacity to meet customer demand during peak periods.

Atmos Power Systems, Inc. constructs gas-fired electric peaking power generating plant and associated facilities and may enter into agreements to either lease or sell these plants. Since 2001, 2 sales-type lease transactions have been executed.

Exhibit MHF-1

Egasco, LLC was, several years ago, engaged in the marketing and sale of natural gas to large-volume commercial and agricultural customers in West Texas. Egasco no longer serves any customers.

Fort Necessity Gas Storage, LLC is a wholly owned subsidiary of Atmos Pipeline and Storage, LLC, and was created in 2009 to construct and operate a non-regulated salt-cavern gas storage project in Louisiana. In March 2011, we recorded a $19.3 million charge to substantially write off our investment in Fort Necessity.

Trans Louisiana Gas Storage, Inc. owns a minority interest in a salt dome storage facility in Louisiana. This facility is used to serve utility and non-utility customers.

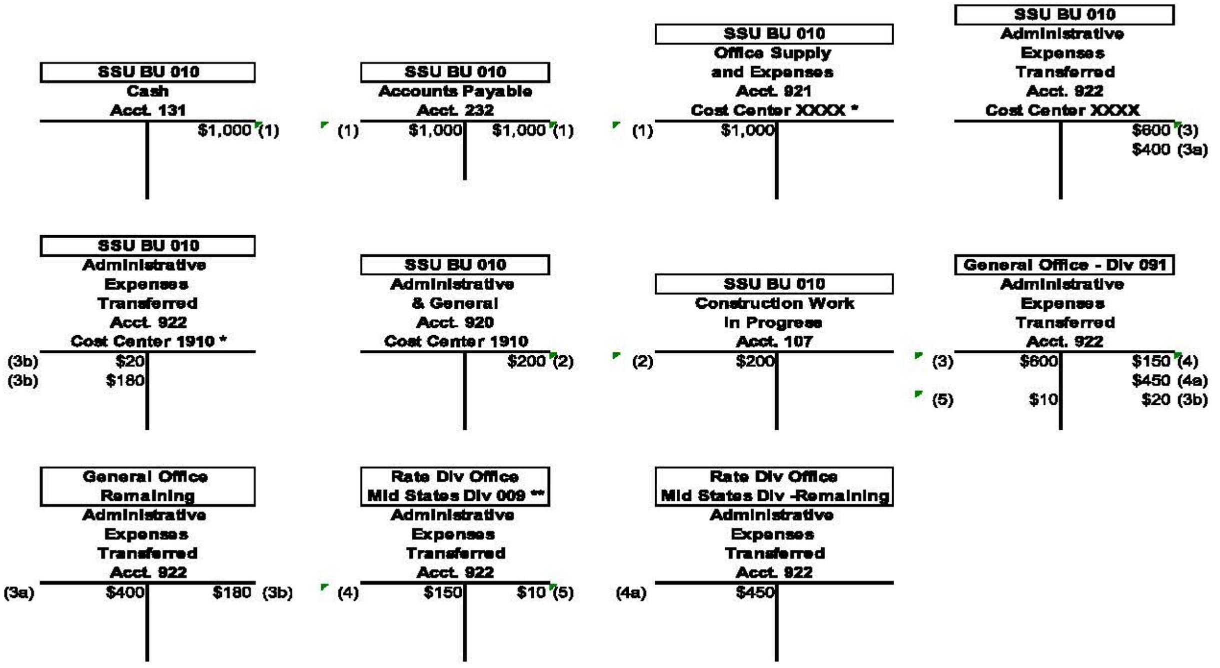
Trans Louisiana Gas Pipeline, Inc. owns and operates an intrastate pipeline system in Louisiana. This facility is used to serve utility and non-utility customers.

UCG Storage, Inc. owns certain storage field interests in Kentucky which are used to serve utility customers.

WKG Storage, Inc. owns certain storage field interests in Kentucky which are used to serve utility customers.

Service:	**Capitalized overhead (general)**
Description:	Overhead related to capital expenditures
Current Provider of Service	Shared Services Atmos Pipeline – Texas Division Louisiana Division operating division general office Kentucky/Mid-States Division operating division general office Colorado-Kansas Division operating division general office Mid-Tex Division Mississippi Division West Texas Division operating division general office
Current Use of Service	Rate divisions
Basis for allocation	Capitalized overhead costs are accumulated by operating division (and state level for multiple state divisions). Each operating division (and state) sets an application rate at the beginning of the year based on projected expenditures. As expenditures for CWIP and RWIP are recorded overhead is applied at the application rate. Periodically, the application rate is reviewed. Shared services overhead is allocated to operating divisions based on operating division capital expenditures. At the end of each quarter, the amount that has accumulated in the OH project is cleared to all eligible projects that incurred charges during that quarter, on a pro rata basis

General Ledger Entries: Example Only



* Cap rate = 20%

** Many rate division offices exist within Mid-States in addition to Div 009.

Flow of Activity

(1) Purchase Office Supplies
(2) Capitalize Overhead is calculated based on cost center capitalization percentage
(3) Allocating Shared Services Expenses to General Offices - 60% Allocation rate for illustration purposes only
(3a) Allocation to remaining general offices
(3b) Allocate capitalization credits to business units
(4) Allocating Shared Services Expenses to Rate Division Office - 25% Allocation rate for illustration purposes only
(4a) Allocation to remaining division offices
(5) Allocating Shared Services Capitalization Credit to Rate Division Office - 50% Allocation rate for illustration purposes only

Note: Please see the allocation of expenses from General Office to State Regional Office to Rate Division on the following pages:
West Texas - 17, Colorado/Kansas - 19, Louisiana - 23

Exhibit MHF-1

Service:	**Stores overhead**
Description:	Overhead related to inventory warehousing is allocated to materials as issued.
Current Provider of Service	Shared Services Operating division general office
Current Use of Service	Atmos Pipeline – Texas Division West Texas Division rate divisions Louisiana Division rate divisions Kentucky/Mid-States Division rate divisions Mid-Tex Division rate division Colorado-Kansas Division rate divisions Mississippi Division rate division
Basis for allocation	Overhead costs associated with inventory items, including rent, labor and supervision are accumulated by operating division. Each operating division sets an application rate at the beginning of the year based on projected overhead and materials activity. As materials are issued from the warehouse, the overhead assigned is also allocated to the same account. Periodically, the balance in the undistributed stores overhead account is compared to the materials on hand balance and a new rate is determined. Shared Services stores overhead is allocated monthly to the operating divisions based on number of meters.

General Ledger Entries: Example Only

SSU BU 010
Cash
Acct. 131

		$100	(1)
		$2	(3a)

SSU BU 010
Inventory

(1)	$100	$100	(2)

Rate Div Office
Mid States Div 009 **
Construction Work
in Progress
Acct. 107

(2)	$100	
(3b)	$2	

SSU BU 010
Stores Expense
Undistributed
Acct. 163

(3a)	$2	$2	(3b)

SSU BU 010
Accounts
Payable
Acct. 232

(3a)	$2	$2	(3a)

** Many rate division offices exist within Mid-States in addition to Div 009.

Flow of Activity

1 Purchase Inventory - Material
2 Issue Inventory to Capital Project
3a Incurring Inventory Expense
3b Apply Inventory Storage Rate
Assume 2%

Exhibit MHF-1

Service: **O&M Expenses in Shared Services – Customer Support cost centers**

Description: Includes all expenses for Customer Support. (Division 012)

Current Provider Of Service: Shared Services

Current Use of Service:
West Texas Rate Divisions
Mid-Tex Division
Louisiana Rate Divisions
Kentucky/Mid-States Rate Divisions
Colorado-Kansas Rate Divisions
Mississippi Division

Basis for allocation: Costs are allocated to the applicable operating division general office in total based on the average number of customers in each operating division as a percentage of the total number of customers in all of the operating divisions. From the operating division general office Divisions Customer Support charges are allocated to rate divisions using the average number of customers in each rate division.

General Ledger Entries: Example Only

SSU BU 010
Cash
Acct. 131

		$1,000	(1)

SSU BU 010
Accounts Payable
Acct. 232

(1)	$1,000	$1,000	(1)

SSU BU 010
Office Supply and Expenses *
Acct. 921
Cost Center XXXX

(1)	$1,000		

SSU BU 010
Administrative Expenses Transferred
Acct. 922

		$ 400	(2)
		$ 600	(2a)

General Office Remaining
Administrative Expenses Transferred
Acct. 922

(2a)	$ 600		

General Office Mid States - Div 091
Administrative Expenses Transferred
Acct. 922

(2)	$400	$100	(3)
		$300	(3a)

Rate Div Office Mid States Div 009 **
Administrative Expenses Transferred
Acct. 922

(3)	$100		

Rate Div Office Mid States -Remaining
Administrative Expenses Transferred
Acct. 922

(3a)	$300		

* Many O&M expense accounts exist in addition to 921 that get cleared out of account 922.
** Many rate division offices exist within Mid-States in addition to Div 009.

Flow of Activity

(1) Purchase Office Supplies - Shared Services
(2) Allocating Shared Services Expenses to General Offices - 40% Allocation rate for illustration purposes only
(2a) Allocation to remaining general offices
(3) Allocating Shared Services Expenses to Rate Division Office - 25% Allocation rate for illustration purposes only
(3a) Allocation to remaining division offices

Note: Please see the allocation of expenses from General Office to State Regional Office to Rate Division on the following pages:
West Texas - 17, Colorado/Kansas - 19, Louisiana - 23

Exhibit MHF-1

Service:	**O&M Expenses in Shared Services – General Office cost centers**
Description:	Includes O&M expenses in Shared Services – General Office. (Division 002)
Current Provider Of Service	Shared Services
Current Use of Service	Atmos Energy Louisiana Industrial Gas, LLC Trans Louisiana Gas Pipeline WKG Storage, Inc. West Texas Division Mid-Tex Division Atmos Pipeline – Texas Division Louisiana Division Kentucky/Mid-States Division Colorado-Kansas Division Mississippi Division Trans Louisiana Gas Storage Atmos Power Systems, Inc UCG Storage, Inc. Atmos Energy Holdings, Inc.
Basis for allocation	Costs are allocated to affiliates and operating divisions based on a composite factor applied to the Shared Services departments. Shared Services departments which provide services to the Company's affiliates utilize a composite factor which includes the affiliates. Shared Service departments that do not provide services to the Company's affiliates utilize a composite factor which does not include the Company's affiliates. Other allocation methods used as appropriate include, but are not limited to, composite not including affiliates or Atmos Pipeline –Texas and an Overhead rate. From each operating division general office charges are allocated to rate divisions using the composite rate for each rate division.

See page 12 for General Ledger Entries: Example Only.

Exhibit MHF-1

General Ledger Entries: Example Only

SSU BU 010
Cash
Acct. 131

		$1,000	(1)

SSU BU 010
Accounts Payable
Acct. 232

(1)	$1,000	$1,000	(1)

SSU BU 010
Office Supply
and Expenses *
Acct. 921
Cost Center XXXX

(1)	$1,000		

SSU BU 010
Administrative
Expenses
Transferred
Acct. 922

		$ 300	(2)
		$ 700	(2a)

General Office
Remaining
Administrative
Expenses
Transferred
Acct. 922

(2a)	$ 700		

General Office
Mid States - Div 091
Administrative
Expenses
Transferred
Acct. 922

(2)	$300	$150	(3)
		$150	(3a)

Rate Div Office
Mid States Div 009 **
Administrative
Expenses
Transferred
Acct. 922

(3)	$150		

Rate Div Office
Mid States -Remaining
Administrative
Expenses
Transferred
Acct. 922

(3a)	$150		

* Many O&M expense accounts exist in addition to 921 that get cleared out of account 922.
** Many rate division offices exist within Mid-States in addition to Div 009.

Flow of Activity

(1) Purchase Office Supplies - Shared Services
(2) Allocating Shared Services Expenses to General Offices - 30% Allocation rate for illustration purposes only
(2a) Allocation to remaining general offices
(3) Allocating Shared Services Expenses to Rate Division Office - 50% Allocation rate for illustration purposes only
(3a) Allocation to remaining division offices

Note: Operating Divisions Mississippi, Mid-Tex and Atmos Pipeline – Texas have 1 rate division. There is no allocation to remaining division offices (3a).

Note: Please see the allocation of expenses from General Office to State Regional Office to Rate Division on the following pages:
West Texas - 17, Colorado/Kansas - 19, Louisiana - 23

Exhibit MHF-1

Service:	**SSU – Customer Support taxes other than income taxes**
Description:	Includes all taxes other than income tax charged in Shared Services – Customer Support.
Current Provider Of Services	Shared Services
Current Use of Service	West Texas Rate Divisions Louisiana Rate Divisions Kentucky/Mid-States Rate Divisions Mid-Tex Division Colorado-Kansas Rate Divisions Mississippi Division
Basis for allocation	Costs are allocated to the applicable rate division level in total based on the average number of customers in each operating division as a percentage of the total number of customers in all of the operating divisions. If needed number of customers in the rate divisions is used to allocate from the operating division general office to the rate divisions.

General Ledger Entries: Example Only

SSU BU 010
Cash
Acct. 131

		$1,000	(1)

SSU BU 010
Accounts Payable
Acct. 232

(1)	$1,000	$1,000	(1)

SSU BU 010
Taxes Other than Income Taxes
Acct. 408.1

(1)	$1,000	$400	(2)
		$600	(2a)

General Office Remaining
Taxes Other than Income Taxes
Acct. 408.1

(2a)	$600		

General Office Mid States -Div 091
Taxes Other than Income Taxes
Acct. 408.1

(2)	$400	$100	(3)
		$300	(3a)

Rate Div Office Mid States -Div 009**
Taxes Other than Income Taxes
Acct. 408.1

(3)	$100		

Rate Div Office Mid States - Remaining
Taxes Other than Income Taxes
Acct. 408.1

(3a)	$300		

** Many rate division offices exist in addtion to Div 009.

Flow of Activity

(1) Taxes Other than Income Taxes incurred
(2) Allocating Shared Services Expenses to General Offices - 40% to Mid States BU - for illustration purposes
(2a) Allocating to remaining division offices
(3) Allocating Shared Services Expenses to Rate Division Office - 25% for Kentucky Rate Division Office - for illustration purposes only
(3a) Allocating Shared Services Expenses to remaining Rate Division Offices

Note: Please see the allocation of expenses from General Office to State Regional Office to Rate Division on the following pages:
West Texas - 17, Colorado/Kansas - 19, Louisiana - 23

Exhibit MHF-1

Service:	**SSU – General Office taxes other than income taxes**
Description:	Includes all taxes other than income tax charged in Shared Services – General Office.
Current Provider Of Services	Shared Services
Current Use of Service	Atmos Energy Louisiana Industrial Gas, LLC Atmos Power Systems, Inc. WKG Storage, Inc. Trans Louisiana Gas Pipeline, Inc. West Texas Division Mid-Tex Division Atmos Pipeline – Texas Division Louisiana Division Kentucky/Mid-States Division Colorado-Kansas Division Mississippi Division UCG Storage, Inc. Atmos Energy Holdings, Inc.
Basis for allocation	Costs are allocated to the applicable operating divisions in total based on the Composite Factor. The Composite Factor is the simple average of three percentages: The percentage of Gross Direct Property Plant and Equipment in each operating division unit as a percentage of the total Direct Property Plant and Equipment in all of the operating divisions. The number of customers in each operating division as a percentage of the total number of customers in all of the operating divisions. The total direct O&M expense in each operating division as a percentage of the total direct O&M expense in all operating divisions. If needed, allocation from operating division general offices to rate division uses the composite rate.

See page 13 for General Ledger Entry – Example Only.

Exhibit MHF-1

Service:	**SSU – Customer Support depreciation**
Description:	Includes all depreciation charged in Shared Services – Customer Support.
Current Provider Of Services	Shared Services
Current Use of Service	West Texas Rate Divisions Louisiana Rate Divisions Kentucky/Mid-States Rate Divisions Mid-Tex Division Colorado-Kansas Rate Divisions Mississippi Division
Basis for allocation	Costs are generally allocated to the applicable rate division level in total based on the average number of customers in each operating division as a percentage of the total number of customers in all of the operating divisions. If needed, number of customers in the rate divisions is used to allocate from the operating division general office to the rate divisions. Depreciation associated with the Charles K. Vaughan Center is allocated based upon square footage, number of customers and employee training usage.

General Ledger Entries: Example Only

SSU BU 010
Depreciation Exp
Acct. 403

(1)	$5,000	$200	(2)
		$4,800	(2a)

SSU BU 010
Depreciation Exp
Acct. 108

		$5,000	(1)

Rate Div Office
Mid States -Div 009**
Depreciation Exp
Acct. 403

(2)	$200	
(2a)	$4,800	

** Many rate division offices exist in addtion to Div 009.

Flow of Activity

(1) Monthly Depreciation Expense is booked through Powerplant and interfaces with the Oracle general ledger.

(2) Current Month Depreciation Expense is allocated to the various utility rate divisions using the following allocation factors:

  i. For SSU division 002 - General - Allocated using the composite factor

  ii. For SSU division 012 - Call Center - Allocated using the customer factor.

(2a) Allocation to remaining Rate Divisions

Note: Please see the allocation of expenses from General Office to State Regional Office to Rate Division on the following pages:
West Texas - 17, Colorado/Kansas - 19, Louisiana - 23

Exhibit MHF-1

Service: **SSU – General Office depreciation**

Description: Includes all depreciation charged in Shared Services – General Office.

Current Provider Of Services: Shared Services

Current Use of Service:

Atmos Energy Louisiana Industrial Gas, LLC
WKG Storage, Inc.
Trans Louisiana Gas Pipeline, Inc.
West Texas Division
Mid-Tex Division
Atmos Pipeline – Texas Division
Louisiana Division
Kentucky/Mid-States Division
Colorado-Kansas Division
Mississippi Division
UCG Storage, Inc.
Atmos Energy Holdings, Inc.

Basis for allocation: Costs are generally allocated to the applicable operating divisions in total based on the Composite Factor. The Composite Factor is the simple average of three percentages:

(1) The percentage of Gross Direct Property Plant and Equipment in each operating division unit as a percentage of the total Direct Property Plant and Equipment in all of the operating divisions.

(2) The number of customers in each operating division as a percentage of the total number of customers in all of the operating divisions.

(3) The total direct O&M expense in each operating division as a percentage of the total direct O&M expense in all operating divisions.

If needed, allocation from operating division general offices to rate division uses the composite rate.

The depreciation allocation for the Greenville Data Center is based upon the Composite Factor and square footage percent by business unit.

The depreciation allocation for SSU General Office (Div 002) assets that support the enterprise excluding our Atmos Pipeline – Texas (APT) Division are based on a composite factor that excludes APT. This rate is referred to as AEAM.

The depreciation allocation for our Aligne billing system assets are based upon invoiced volumes per business unit as a percentage of total volumes. Currently, only the APT, Mid-Tex and AELIG business units use this rate.

See page 15 for General Ledger Entry – Example Only.

Service:	**West Texas Division operating division general office O&M, depreciation and taxes other than income taxes, to rate division level**
Description:	Allocation of operating division general office expenses to rate division levels
Current Provider of Service	West Texas Division operating division general office
Current Use of Service	West Texas Division rate divisions
Basis for allocation	Costs are allocated to the applicable operating divisions in total based on the Composite Factor. The Composite Factor is the simple average of three percentages: (1) The percentage of Gross Direct Property Plant and Equipment in each division as a percentage of the total Direct Property Plant and Equipment in the West Texas Division rate divisions. (2) The number of customers in each rate division as a percentage of the total number of customers in the West Texas Division rate divisions. (3) The total direct O&M expense in each municipal rate division as a percentage of the total direct O&M expense in the West Texas Division rate divisions.

See Page 18 for General Ledger Entries: Example Only.

Exhibit MHF-1

General Ledger Entries: Example Only

General Office
SSU – Div 002
Cash
Acct. 131

		$500	(1)
		$400	(5)

General Office
SSU – Div 002
Accounts Payable
Acct. 232

(1)	$500	$500	(1)
(5)	$400	$400	(5)

General Office
West Texas - Div 010
Office Supply
and Expenses *
Acct. 921

(1)	$500		

General Office
West Texas - Div 010
Administrative
Expenses
Transferred
Acct. 922

		$200	(2)
		$300	(2a)

Rate Div Office
West Texas Div 005**
Administrative
Expenses
Transferred
Acct. 922

(2)	$200		

Rate Div Office
West Texas -Remaining
Administrative
Expenses
Transferred
Acct. 922

(2a)	$300		

General Office
West Texas - Div 010
Depreciation Exp
Acct. 403

(3)	$100	$15	(4)
		$85	(4a)

West Texas - Div 010
Accumulated Depreciation
Acct. 108

		$100	(3)

Rate Div Office
West Texas Div 005**
Depreciation Exp
Acct. 403

(4)	$15		

General Office
West Texas - Div 010
Taxes Other than
Income Taxes
Acct. 408.1

(5)	$400	$100	(6)
		$300	(6a)

Rate Div Office
West Texas Div 005**
Taxes Other than
Income Taxes
Acct. 408.1

(6)	$ 100		

Rate Div Office
West Texas -Remaining
Taxes Other and
Depreciation
Acct. 408.1 and 403

(4a)	$85		
(6a)	$300		

* Many O&M expense accounts exist in addition to 921 that get cleared out of account 922.
** Many rate division offices exist in addition to Div 005.

Flow of Activity

(1) Purchase Office Supplies - West Texas Division General Office
(2) Allocating General Office Expenses to Rate Division Office - 40% Allocation rate for illustration purposes only
(2a) Allocation to remaining division offices
(3) Monthly Depreciation Expense is booked through Powerplant and interfaces with the Oracle general ledger.
(4) Allocation from Division 010 - West Texas General Office to West Texas Rate Divisions
(4a) Allocation to remaining division offices
(5) Taxes Other than Income Taxes incurred
(6) Allocating General Office Expenses to Rate Division Office - 25% to West Texas Rate Division Office - for illustration purposes only
(6a) Allocation to remaining division offices

Service: **Colorado-Kansas Division operating division general office expenses to state regional office division level.**

Description: Allocation of division general office expenses to state regional office division levels.

Current Provider of Service: Colorado-Kansas Division operating division general office

Current Use of Service: Colorado-Kansas Operating Division state office divisions.

Basis for allocation: Costs are allocated to the applicable state regional office divisions in total based on the Composite Factor. The Composite Factor is the simple average of three percentages:

(1) The percentage of Gross Direct Property Plant and Equipment in each state as a percentage of the total Direct Property Plant and Equipment in Colorado-Kansas Division.

(2) The number of customers in each state as a percentage of the total number of customers in Colorado-Kansas Division.

(3) The total direct O&M expense in each state as a percentage of the total direct O&M expense in Colorado-Kansas Division.

General Ledger Entries: Example Only

General Office
SSU – Div 002
Cash
Acct. 131

		$500 (1)

General Office
SSU – Div 002
Accounts Payable
Acct. 232

(1)	$500	$500 (1)

General Office
CO/KS BU 060
Office Supply
and Expenses *
Acct. 921

(1)	$500	

General Office
CO/KS BU 060
Administrative
Expenses
Transferred
Acct. 922

		$250 (2) $250 (2a)

State Div Office
CO/KS Div 031
Administrative
Expenses
Transferred
Acct. 922

(2)	$250	

Rate Div Office
CO/KS Div 080
Administrative
Expenses
Transferred
Acct. 922

(2a)	$250	

* Many O&M expense accounts exist in addition to 921 that get cleared out of account 922.

Flow of Activity

(1) Purchase Office Supplies - Colorado/Kansas Division General Office
(2) Allocating General Office Expenses to State Division Office - 50% Allocation rate for illustration purposes only
(2a) Allocation to remaining state office

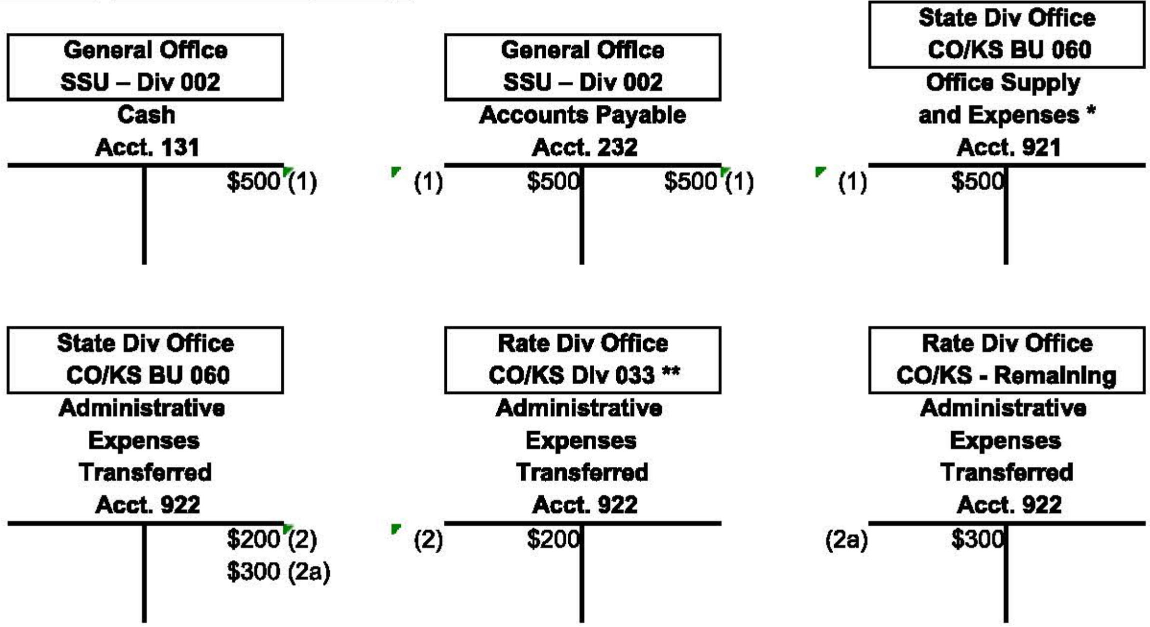
Service:	**Colorado-Kansas Division state regional office division level expenses to rate division level**
Description:	Allocation of state regional office division level expenses to rate division levels.
Current Provider of Service	Colorado-Kansas Division regional division office
Current Use of Service	Colorado-Kansas Division rate divisions
Basis for allocation	Costs are allocated to the applicable rate divisions in total based on the Composite Factor. The Composite Factor is the simple average of three percentages:

(1) The percentage of Gross Direct Property Plant and Equipment in each state rate division as a percentage of the total Direct Property Plant and Equipment in each state.

(2) The number of customers in each state rate division as a percentage of the total number of customers in each state.

(3) The total direct O&M expense in each state rate division as a percentage of the total direct O&M expense in each state.

General Ledger Entries: Example Only



* Many O&M expense accounts exist in addition to 921 that get cleared out of account 922.

** Many rate division offices exist within the state in addition to Div 033.

Flow of Activity

(1) Purchase Office Supplies - Colorado/Kansas State Division Office

(2) Allocating State Divisoin Office Expenses to Rate Division Office - 40% Allocation rate for illustration purposes only

(2a) Allocation to remaining division offices

Exhibit MHF-1

Service:	**Kentucky/Mid-States Division operating division general office O&M, depreciation and taxes other than income taxes, to rate division level**
Description:	Allocation of operating division general office expenses to rate division levels
Current Provider Of Service	Kentucky/Mid-States Division operating division general office
Current Use of Service	Kentucky/Mid-States Division rate divisions
Basis for allocation	Costs are allocated to the applicable rate divisions in total based on the Composite Factor. The Composite Factor is the simple average of three percentages: (1) The percentage of Gross Direct Property Plant and Equipment in each rate division as a percentage of the total Direct Property Plant and Equipment in Kentucky/Mid-States Division. (2) The number of customers in each rate division as a percentage of the total number of customers in Kentucky/Mid-States Division. (3) The total direct O&M expense in each rate division as a percentage of the total direct O&M expense in Kentucky/Mid-States Division. See Page 22 for General Ledger Entries: Example Only.

Exhibit MHF-1

General Ledger Entries: Example Only

General Office
SSU – Div 002
Cash
Acct. 131

		$500	(1)
		$400	(5)

General Office
SSU – Div 002
Accounts Payable
Acct. 232

(1)	$500	$500	(1)
(5)	$400	$400	(5)

General Office
Mid States - Div 091
Office Supply
and Expenses *
Acct. 921

(1)	$500		

General Office
Mid States - Div 091
Administrative
Expenses
Transferred
Acct. 922

		$200	(2)
		$300	(2a)

Rate Div Office
Mid States Div 009 **
Administrative
Expenses
Transferred
Acct. 922

(2)	$200		

Rate Div Office
Mid States -Remaining
Administrative
Expenses
Transferred
Acct. 922

(2a)	$300		

General Office
Mid States - Div 091
Depreciation Exp
Acct. 403

(3)	$100	$15	(4)
		$85	(4a)

Mid States - Div 091
Accumulated Depreciation
Acct. 108

		$100	(3)

Rate Div Office
Mid States Div 009 **
Depreciation Exp
Acct. 403

(4)	$15		

General Office
Mid States - Div 091
Taxes Other than
Income Taxes
Acct. 408.1

(5)	$400	$100	(6)
		$300	(6a)

Rate Div Office
Mid States Div 009 **
Taxes Other than
Income Taxes
Acct. 408.1

(6)	$ 100		

Rate Div Office
Mid States -Remaining
Taxes Other and
Depreciation
Acct. 408.1 and 403

(4a)	$85		
(6a)	$300		

* Many O&M expense accounts exist in addition to 921 that get cleared out of account 922.
** Many rate division offices exist in addition to Div 009.

Flow of Activity

(1) Purchase Office Supplies - Mid States Division General Office
(2) Allocating General Office Expenses to Rate Division Office - 40% Allocation rate for illustration purposes only
(2a) Allocation to remaining division offices
(3) Monthly Depreciation Expense is booked through Powerplant and interfaces with the Oracle general ledger.
(4) Allocation from Division 091 - Mid States General Office to Mid States Rate Divisions - Allocated using the composite factor.
(4a) Allocation to remaining division offices
(5) Taxes Other than Income Taxes incurred
(6) Allocating General Office Expenses to Rate Division Office - 25% to Mid States Rate Division Office - for illustration purposes only
(6a) Allocation to remaining division offices

Service:	**Louisiana Division operating division general office O&M, depreciation and taxes other than income taxes, to rate division level**
Description:	Allocation of operating division general office expenses to rate division levels
Current Provider of Service	Louisiana Division operating division general office
Current Use of Service	Louisiana Division rate divisions
Basis for allocation	Costs are allocated to the applicable rate divisions in total based on the Composite Factor. The Composite Factor is the simple average of three percentages: (1) The percentage of Gross Direct Property Plant and Equipment in each rate division as a percentage of the total Direct Property Plant and Equipment in Louisiana Division. (2) The number of customers in each rate division as a percentage of the total number of customers in Louisiana Division. (3) The total direct O&M expense in each rate division as a percentage of the total direct O&M expense in Louisiana Division.

See Page 24 for General Ledger Entries: Example Only.

Exhibit MHF-1

General Ledger Entries: Example Only

General Office
SSU – Div 002
Cash
Acct. 131

		$500	(1)
		$400	(5)

General Office
SSU – Div 002
Accounts Payable
Acct. 232

(1)	$500	$500	(1)
(5)	$400	$400	(5)

General Office
LA - Div 107
Office Supply
and Expenses *
Acct. 921

(1)	$500		

General Office
LA - Div 107
Administrative
Expenses
Transferred
Acct. 922

		$200	(2)
		$300	(2a)

Rate Div Office
LA Div 007
Administrative
Expenses
Transferred
Acct. 922

(2)	$200		

Rate Div Office
LA Div 007
Administrative
Expenses
Transferred
Acct. 922

(2a)	$300		

General Office
LA - Div 107
Depreciation Exp
Acct. 403

(3)	$100	$15	(4)
		$85	(4a)

LA - Div 107
Accumulated Depreciation
Acct. 108

		$100	(3)

Rate Div Office
LA Div 007
Depreciation Exp
Acct. 403

(4)	$15		
(4a)	$85		

General Office
LA - Div 107
Taxes Other than
Income Taxes
Acct. 408.1

(5)	$400.00	$100	(6)
		$300	(6a)

Rate Div Office
LA Div 007
Taxes Other than
Income Taxes
Acct. 408.1

(6)	$ 100		

Rate Div Office
LA Div 007
Taxes Other and
Depreciation
Acct. 408.1 and 403

(4a)	$85		
(6a)	$300		

* Many O&M expense accounts exist in addition to 921 that get cleared out of account 922.

Flow of Activity

(1) Purchase Office Supplies - LA Division General Office
(2) Allocating General Office Expenses to Rate Division Office - 40% Allocation rate for illustration purposes only
(2a) Allocation to remaining division offices
(3) Monthly Depreciation Expense is booked through Powerplant and interfaces with the Oracle general ledger.
(4) Allocation from Division 107 - LA General Office to LA Rate Divisions - Allocated using the composite factor.
(4a) Allocation to remaining division offices
(5) Taxes Other than Income Taxes incurred
(6) Allocating General Office Expenses to Rate Division Office - 25% to LA Rate Division Office - for illustration purposes only
(6a) Allocation to remaining division offices

Exhibit MHF-1

Description of Relationship between Mid-Tex and Atmos Pipeline – Texas:

Mid-Tex performs operations and maintenance and capital services for the Atmos Pipeline – Texas ("APT") Division.

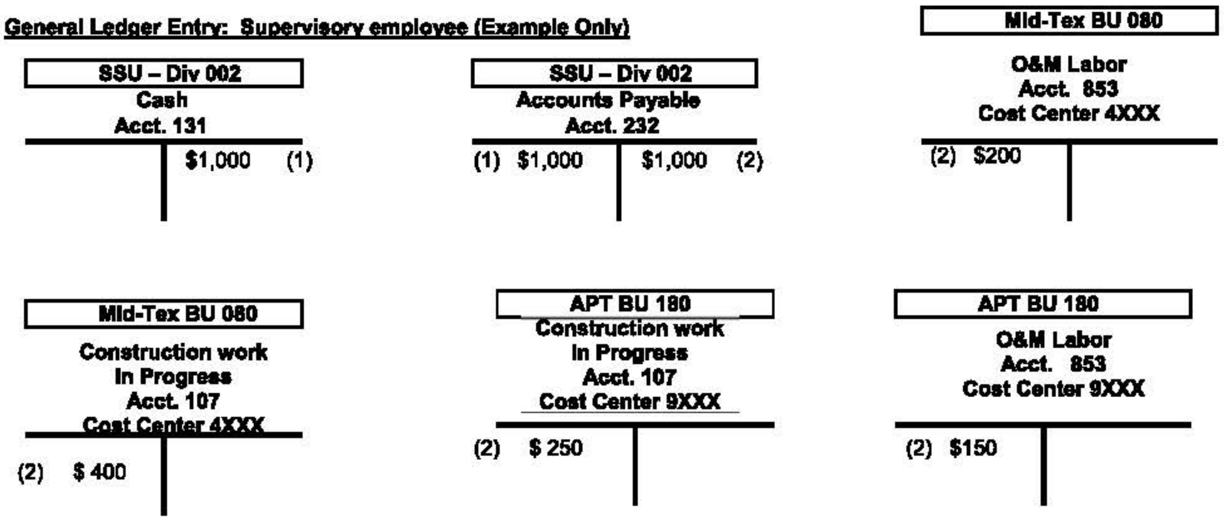
Services are provided on an ongoing basis throughout the Mid-Tex and APT service areas. The field operations include, but are not limited to, services related to pipeline integrity, measurement, compliance work, painting, right of way mowing and reclamation, leak surveys, patrolling, regulator maintenance, fence replacements, line repairs and line replacements. Additionally, Technical and Support Services are provided to APT by centralized departments primarily located at the Mid-Tex headquarters in Dallas. These centralized functions include, but are not limited to, compliance monitoring and reporting, gas measurement, finance and human resources.

APT employs outside contractor labor services and purchases materials and supplies for field operations and construction in addition to the services provided by Mid-Tex. These services and materials are direct charged to APT and are not allocated from Mid-Tex.

APT employs some pipeline only personnel. This labor and the related benefit cost is primarily charged directly to APT and not allocated from Mid-Tex.

Service:	**Mid-Tex/Atmos Pipeline – Texas Division - Intracompany Labor**
Description:	Mid-Tex employees' labor supporting APT operations
Current Provider Of Service	Mid-Tex
Current Use of Service	Atmos Pipeline – Texas
Basis for allocation	The Operational Split is calculated each fiscal year based upon budgeted non-supervisory employee labor and contract labor for the Mid-Tex and APT divisions. Mid-Tex supervisory and support employees (finance, human resources, etc) who charge time to APT generally use the operational split. Mid-Tex non-supervisory employees who charge time to APT generally record their time through the time reporting system.

General Ledger Entry: Supervisory employee (Example Only)

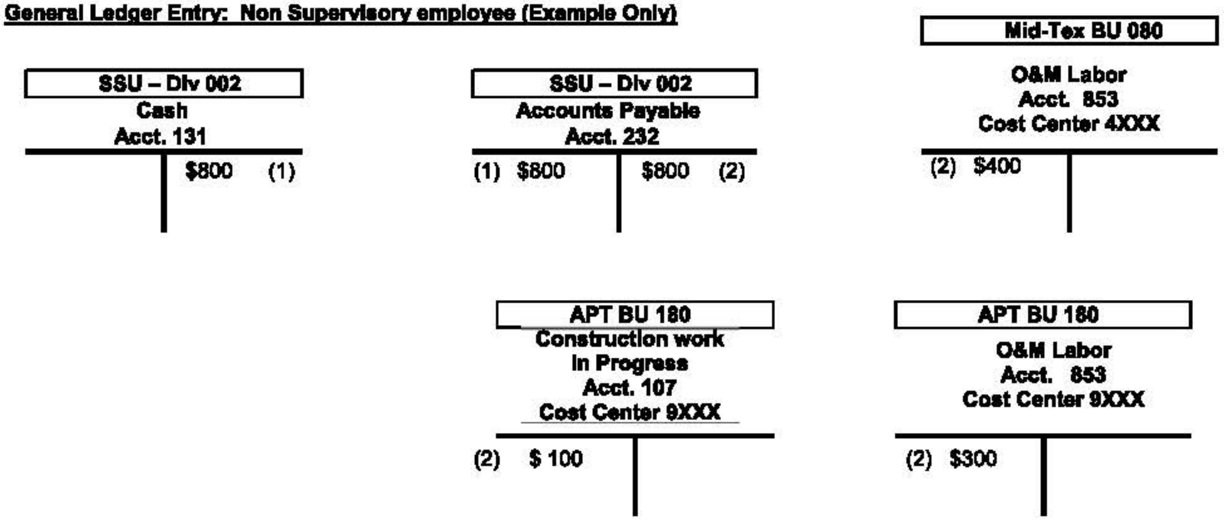


Flow of Activity:

(1) Pay Mid-Tex Supervisory employee

(2) Allocate labor to Mid-Tex and APT – for illustration purposes, this employee's time is charged 60% to Mid-Tex and 40% to APT. The APT portion is 63% capital.

General Ledger Entry: Non Supervisory employee (Example Only)



Flow of Activity:

(1) Pay Mid-Tex employee labor

(2) Direct charge labor to Mid-Tex and APT – for illustration purposes, this employee's time for this payroll cycle was 50% Mid-Tex and 50% APT. The APT portion was 25% capital and 75% expense.

Exhibit MHF-1

Service:	**Mid-Tex/Atmos Pipeline – Texas Division - Non Labor Expenses**
Description:	Allocation includes but is not limited to rents, heavy equipment, utilities, telecom, transportation (vehicles), uniforms, insurance, printing and postage.
Current Provider Of Service	Mid-Tex
Current Use of Service	Atmos Pipeline – Texas Division
Basis for allocation	Factors are primarily based on direct employee labor and contractor labor. The vehicle allocation is based on Company labor only. Allocations vary based on the cost center and sub account.

General Ledger Entries: Transportation Expense (Example Only)

SSU – Div 002
Cash
Acct. 131

		$1,000	(1)

SSU – Div 002
Accounts Payable
Acct. 232

(1)	$1,000	$1,000	(1)

Mid Tex BU 080
O&M Transportation
Acct. 853
Cost Center 4XXX

(1)	$1,000	$780	(2)

APT BU 180
CWIP
Acct. 107
Cost Center 9XXX

(3)	$220		

APT BU 180
O&M Transportation
Acct. 853
Cost Center 4XXX

(2)	$780	$220	(3)

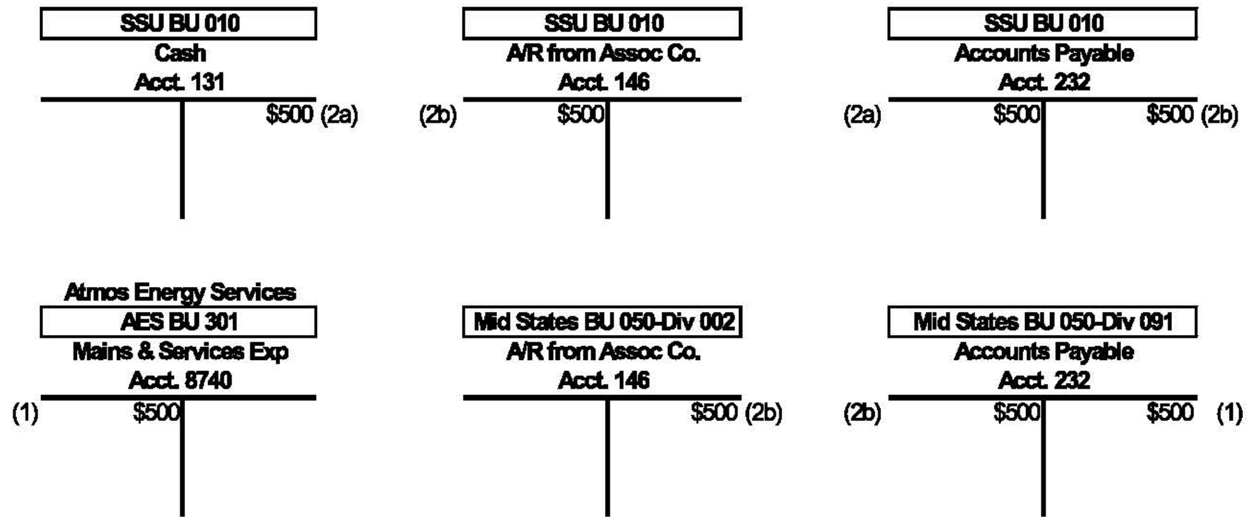
Flow of Activity

(1) $1000 in transportation expense
(2) $780 is allocated from Mid-Tex O&M to APT O&M
(3) A portion of the cost is capitalized, for illustration purposes only (22%)

Exhibit MHF-1

Service:	**Intercompany labor**
Description:	To the extent operating division employees provide labor services to an affiliate, the labor costs for the services will be charged to the appropriate affiliate.
Current Provider of Service	Louisiana Division Colorado-Kansas Division Kentucky/Mid-States Division Mississippi Division West Texas Division
Current Use of Service	UCG Storage, Inc. Atmos Energy Louisiana Industrial Gas, LLC WKG Storage, Inc. Trans Louisiana Gas Pipeline, Inc. Trans Louisiana Gas Storage, Inc.
Basis for allocation	Labor charges are captured through direct time sheet entries and transferred to the appropriate subsidiary receiving the labor services.

General Ledger Entries: Example Only



Flow of Activity

(1) Employee X is a Kentucky Employee. He worked on a special project in March for Atmos subsidiary, AES (Atmos Energy Services). Time is captured through a direct time sheet entry.

(2a) Salary is paid to employee x

(2b) JE is made to relieve payable in operating division.
Intercompany Entry generated by Oracle to keep Operating Divisions in sync.

Exhibit MHF-1

Service:	**Adjustments to Uncollectible Accounts Expense**
Description:	Allocation of additional expense amounts booked to adjust the Provision for Uncollectibles (Account 144)
Current Provider of Service	West Texas Division rate divisions Louisiana Division rate divisions Kentucky/Mid-States Division rate divisions Colorado-Kansas Division rate divisions Mid-Tex Division rate division Mississippi Division rate division
Current Use of Service	West Texas Division rate divisions Louisiana Division rate divisions Kentucky/Mid-States Division rate divisions Colorado-Kansas Division rate divisions Mid-Tex Division rate division Mississippi Division rate division
Basis of Intra-company Allocations	Costs are allocated to the rate divisions in total based on Sales Revenue or Margin.

General Ledger Entries: Example Only

Rate Division *
Accumulated Provision for Uncollectible Accounts
Acct. 144 sub xxxxx

(2) $ 250	$ 1,000 (1)

Rate Division
Customer Accounts - Uncollectible Accounts
Acct. 904

(1) $ 1,000	

Rate Division
Customer Accounts Receivable
Acct. 142 sub xxxxx

	$ 250 (2)

* Each rate division has a different allocation rate.

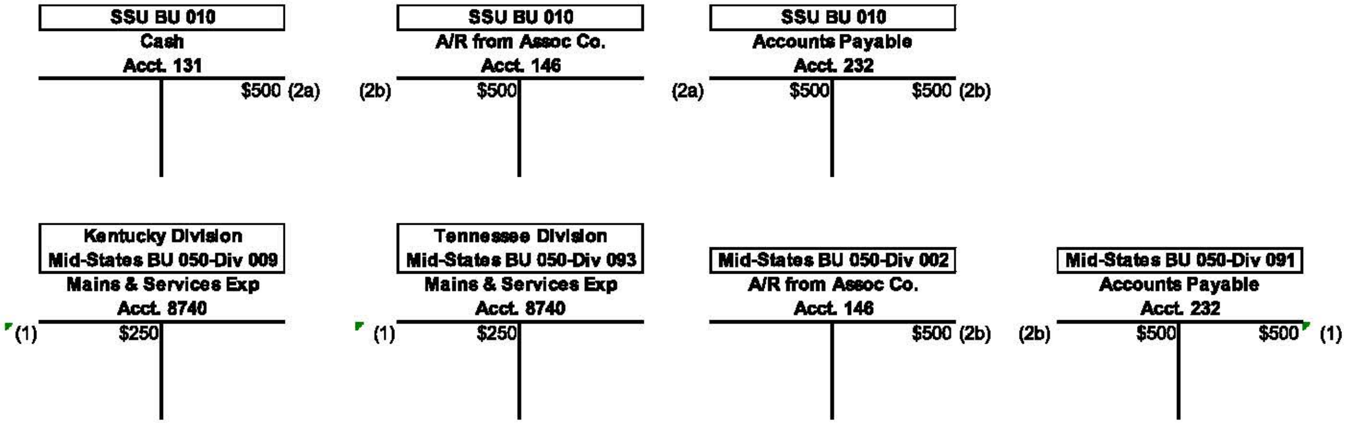
Flow of Activity

(1) Monthly allocated costs.
(2) Write off of uncollectible accounts as needed.

Exhibit MHF-1

Service:	**Intra-company labor allocation – other than operating division general office labor**
Description:	Certain employee activities cross multiple rate divisions within an operating division. The costs associated with such activities include labor, benefits and associated taxes.
Current Provider of Service	Atmos Pipeline – Texas Division West Texas Division Louisiana Division Kentucky/Mid-States Division Mid-Tex Division Colorado-Kansas Division Mississippi Division
Current Use of Service	Atmos Pipeline – Texas Division West Texas Division Louisiana Division Kentucky/Mid-States Division Mid-Tex Division Colorado-Kansas Division Mississippi Division
Basis of Intra-company Allocations	Labor associated with cross-jurisdictional activities is charged to each jurisdiction based on the level of employee activity. The costs are captured either through direct time sheet entries or fixed labor distribution percentages.

General Ledger Entries: Example Only



Flow of Activity

(1) Employee x lives in Kentucky and works 50% in Kentucky and 50% in Tennessee every month.
Time is captured through fixed labor distribution
(2a) Salary is paid to employee x
(2b) JE is made to relieve payable in operating division.
Intercompany Entry generated by Oracle to keep Operating Divisions in sync

Exhibit MHF-1

Service:	**Other income and interest expense (All below the line accounts)**
Description:	Allocation of Shared Services' other income and interest expense (All below the line accounts)
Current Provider of Service	Shared Services
Current Use of Service	West Texas Division Louisiana Division Kentucky/Mid-States Division Mid-Tex Division Colorado-Kansas Division Mississippi Division Atmos Pipeline – Texas Division
Basis for allocation	Interest Expense, Interest Income and Other Non-Operating Income in shared services are allocated to each utility division based on the budget allocation percentages. The budget allocation is based on projected average net investment by rate division for the budget year. For this purpose, 'net investment' is defined as regulatory rate base + goodwill. These allocation factors are the same throughout the fiscal year. The allocation stays in the account the charge was originally booked in. Headquarter allocation of below the line accounts to rate divisions follows the same process as described above.

See page 33 for General Ledger Entries: Example Only.

Exhibit MHF-1

General Ledger Entries: Example Only

SSU BU 010
Cash
Acct. 131

	$1,000		

SSU BU 010
Accounts Receivable
Acct. 143

(1)	$1,000	$1,000	(1)

SSU BU 010
Interest and
Dividend Income
Acct. 419

(2)	$20	$1,000	(1)

Div 033
Interest and
Dividend Income
Acct. 419

		$20	

SSU BU 010
Cash
Acct. 131

		$2,000	(3)

SSU BU 010
Accounts Receivable
Acct. 143

(3)	$2,000	$2,000	(3)

SSU BU 010
Other Deductions *
Acct. 426.5

(3)	$2,000	$40	(4)

Div 033
Other Deductions
Acct. 426.5

(4)	$40		

SSU BU 010
Cash
Acct. 131

		$3,000	(5)

SSU BU 010
Accounts Receivable
Acct. 143

(5)	$3,000	$3,000	(5)

SSU BU 010
Interest Expense
Acct. 431
(Short Term)

(5)	$600	$12	(6)

Div 033
Interest Expense
Acct. 431
(Short Term)

(6)	$ 12		

SSU BU 010
Interest Expense
Acct. 431
(Long Term)

(5)	$2,400	$48	(6)

Div 033
Interest Expense
Acct. 431
(Long Term)

(6)	$ 48		

* Includes various accounts but cleared out of account 426.5

Flow of Activity

(1) Interest and Dividend Income generated
(2) Allocating Shared Services Income and Dividend Income to Div 33 only - Assume 2% allocation rate
(3) Other Income and Expenses generated
(4) Allocating Shared Services Other Deductions to Div 33 only - Assume 2% allocation rate
(5) Interest Expense generated
(6) Allocating Shared Services Interest Expense to Div 33 only - Assume 2% allocation rate

Exhibit MHF-1

Service:	**Gas cost between state jurisdictions for contiguous systems**
Description:	Gas costs that apply to contiguous systems that cross state jurisdictional boundaries are allocated between those rate jurisdictions.
Current Provider of Service	West Texas Division Colorado-Kansas Division Kentucky/Mid-States Division
Current Use of Service	West Texas Division Colorado-Kansas Division Kentucky/Mid-States Division
Basis of Allocations	Allocations are based upon throughput for the West Texas Division and the Colorado-Kansas Division's Southeast Colorado/Southwest Kansas operations. For the Colorado-Kansas Division's Kansas system and for the Kentucky/Mid-States Division, demand costs are allocated based on peak-day requirements. Commodity costs are allocated based upon throughput.

Atmos Energy Corporation
General Ledger Entries: Gas Costs between state jurisdictions for contiguous systems (Example Only)

SSU BU 010
Cash
Acct. 131

		$1,000	(1)

SSU BU 010
Accounts Payable
Acct. 232

(1)	$1,000	$1,000	(2)

Various BU's & Svc Areas
Natural Gas City Gate Purchase
Acct. 804

(2)	$1,000	

(1) Gas cost incurred
(2) Gas cost paid

Exhibit MHF-1

Service:	**Gas storage services between an operating division and an affiliate**
Description:	To the extent an operating division stores gas in a storage field owned by an affiliate, a rental fee for the use of the storage field shall be charged by the affiliate.
Current Provider of Service	UCG Storage, Inc. WKG Storage, Inc.
Current Use of Service	Kentucky/Mid-States Division
Basis for allocation	The annual demand charge between UCG Storage, Inc. and Atmos Energy Corporation (Tennessee operations only) is calculated based on fiscal year plant in service, gas inventory, actual operational costs incurred, and application of revenue and cost of capital conversion factors based on prior regulatory approval. In the calculation of the demand charge, costs not specifically related to a designated area are allocated to each affiliate based on the percentage of total plant servicing that affiliate. The annual demand charge between WKG Storage, Inc. and Atmos Energy Corporation (Kentucky operation only) is based on services provided at actual cost, market rate or as otherwise provided under tariff or contract.

General Ledger Entries: Example Only

WKG Storage BU 233
Other Gas Revenues
Acct. 495

		$100	(1)

KY/Mid-State BU 050, Div 009
Transportation to City Gate
Acct. 8580

(1)	$100		

WKG Storage BU 233, Div 002
A/R from Assoc Co.
Acct. 146

(2)	$100		

KY/Mid-State BU 050, Div 002
A/R from Assoc Co.
Acct. 146

		$100	(2)

Flow of Activity - East Diamond Storage Facility

1 Monthly demand charge for the East Diamond Storage Facility
2 Intercompany Entry generated by Oracle to keep Operating Divisions in sync

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UCG Storage BU 232
Other Gas Revenues
Acct. 495

		$100	(1)

KY/Mid-State BU 050, Div 009
Other gas supply expenses
Acct. 813

(1)	$100		

WKG Storage BU 232, Div 002
A/R from Assoc Co.
Acct. 146

(2)	$100		

KY/Mid-State BU 050, Div 002
A/R from Assoc Co.
Acct. 146

		$100	(2)

Flow of Activity - Barnsley Storage Facility

1 Monthly demand charge for the Barnsley Storage Facility
2 Intercompany Entry generated by Oracle to keep Operating Divisions in sync

Service: **Working capital funds management (Intercompany account)**

Exhibit MHF-1

Description: Funds are invested on behalf of or provided to affiliates based on operations.

Current Provider of Service:	Atmos Energy Corporation	Atmos Energy Holdings, Inc.
Current Use of Service:	Atmos Energy Holdings, Inc.	Atmos Energy Corporation
Interest Income/Expense Calculation (See Below)	A	B

Basis for allocation: Interest income or expense is recognized each month at the subsidiaries' level based on the total average outstanding balance of all intercompany receivable/payable balances using the following rates:

A (AEH is the borrower)
Expense – One month LIBOR (last day of the month) plus 300 basis points
Income – One month LIBOR (last day of the month)

B (AEC is the borrower)
Expense – The lowest outstanding CP rate or the Eurodollar rate under the AEC Credit Facility (Credit Ag), which is LIBOR plus 100
Income – One month LIBOR (last day of the month)

Atmos Energy Corporation
General Ledger Entries: Working Capital Funds Management (Example Only)

SSU BU 010
Interest and Dividend Income
Acct. 419

		$1,000 (1)

AEH BU 312
Other Interest Expense
Acct. 431

(1)	$1,000	

(1) Interest Income and/or expense is recognized each month at the subsidiaries' level

Exhibit MHF-1

Service:	**Gas storage services provided between affiliates**
Description:	To the extent an affiliate stores gas in a storage field owned by another affiliate, a fee for the use of the storage field shall be charged.
Current Provider of Service	Trans Louisiana Gas Storage, Inc.
Current Use of Service	Trans Louisiana Gas Pipeline, Inc.
Basis for allocation	The fee to the affiliate utilizing the storage service is based on services provided at actual cost, market rate or as otherwise provided under tariff.

General Ledger Entries: Example Only

BU 234

Accounts Receivable from Associated Company Acct. 146

$100	

BU 234

Revenue Transportation - Industrial Acct. 4896

	$100

BU 303

Accounts Receivable from Associated Company Acct. 146

	$100

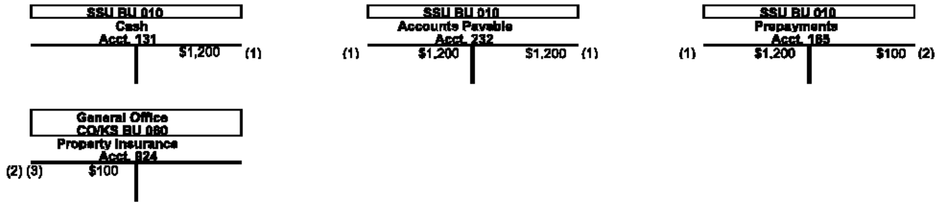
BU 303

Other Gas Supply Expense Acct. 813

$100	

Service:	**Property Insurance**
Description:	Blueflame Insurance Services, LTD provides a direct property insurance policy. The policy covers the property against all risks of direct physical loss or damage.
Current Provider of Service	Blueflame Insurance Services, LTD
Current Use of Service	Kentucky/Mid-States Division Colorado-Kansas Division Shared Services Louisiana Division Mississippi Division Mid-Tex Division West Texas Division Atmos Pipeline – Texas Division Atmos Energy Louisiana Industrial Gas, LLC Atmos Exploration & Production, Inc. Atmos Energy Services, LLC Atmos Power Systems, Inc. Trans Louisiana Gas Pipeline, Inc. Trans Louisiana Gas Storage, Inc. UCG Storage, Inc. WKG Storage, Inc. Atmos Gathering Company, LLC
Basis for allocation	Atmos Energy Corporation is invoiced by Blueflame Insurance Services. Costs are allocated based on the gross property, plant and equipment and gas stored underground balances of each affiliate at a rate division level.

General Ledger Entries: Example Only



Flow of Activity

(1) Purchase of property insurance

(2) Monthly amortization to rate divisions

(3) Amounts remaining in SSU cost centers are allocated to the divisions using the method described on pages 11 and 12.

Exhibit MHF-1

Service: **Intercompany Interest on Notes Payable**

Description:	Intercompany Interest on Notes Payable
Current Provider Of Services	Shared Services
Current Use of Service	Atmos Energy Holdings, Inc.

Current Provider of Service:	Atmos Energy Corporation	Atmos Energy Holdings, Inc.
Current Use of Service:	Atmos Energy Holdings, Inc.	Atmos Energy Corporation
Interest Income/Expense Calculation (See Below)	A	B

Basis for allocation

Interest income and expense is recognized each month at the subsidiaries' level using the following rates:

A (AEH is the borrower)
Expense – One month LIBOR (last day of the month) plus 300 basis points
Income – One month LIBOR (last day of the month)

B (AEC is the borrower)
Expense – The lowest outstanding CP rate or the Eurodollar rate under the AEC Credit Facility (Credit Ag), which is LIBOR plus 100
Income – One month LIBOR (last day of the month)

General Ledger Entries: Example Only

Shared Services

Accounts Receivable from Associated Company
Acct. 146

		$1,000	(1)

Shared Services

Interest on Debt to Associated Companies
Acct. 431

(1)	$1,000		

Atmos Energy Holdings, Inc.

Accounts Receivable from Associated Company
Acct. 146

(1)	$1,000		

Atmos Energy Holdings, Inc.

Interest and Dividend Income
Acct. 419

		$1,000	(1)

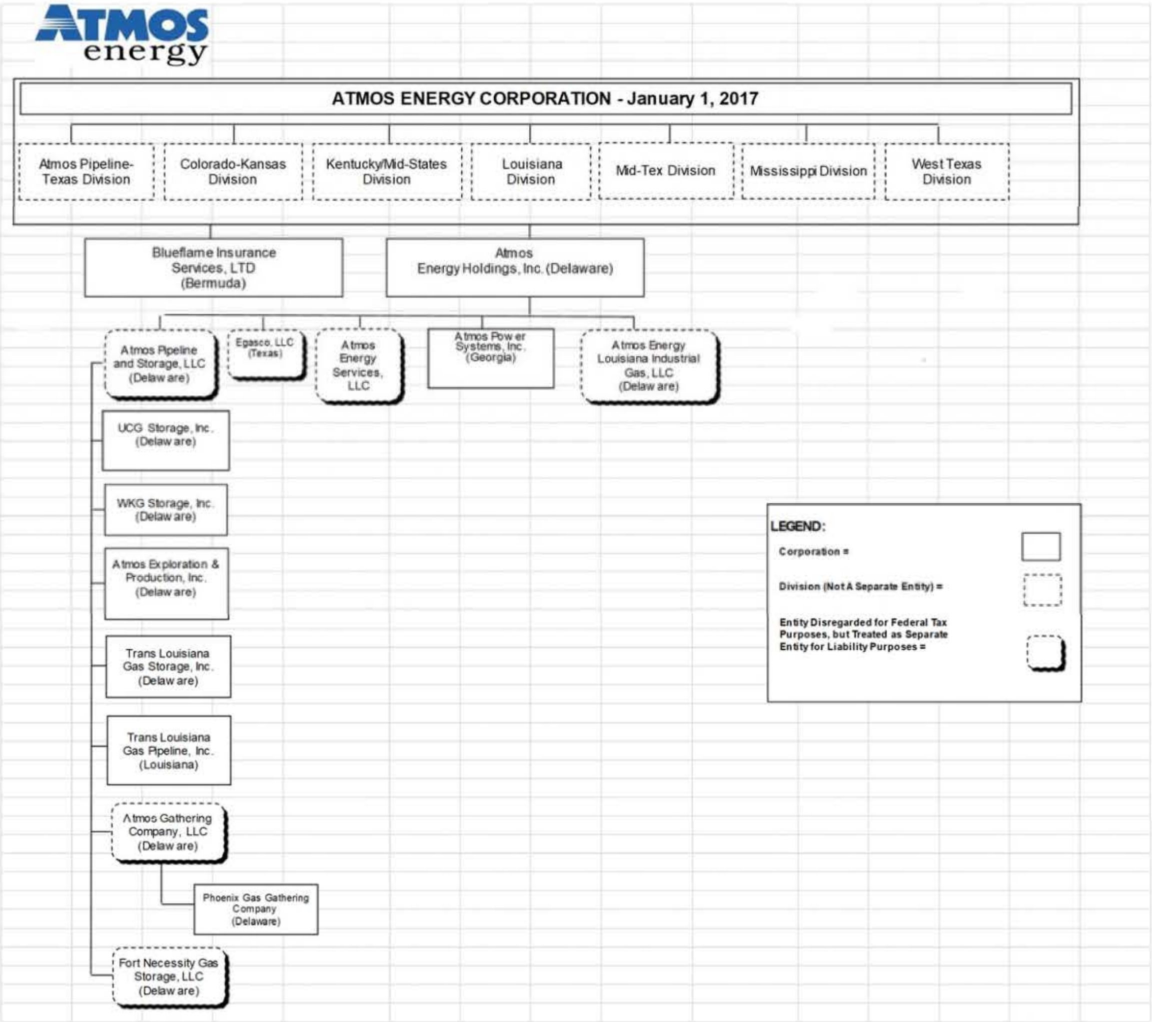
Flow of Activity

(1) Intercompany Interest on Notes Payable is recognized each month at the subsidiary level.

Exhibit MHF-1

Appendix A

Exhibit MHF-1



BEFORE THE PUBLIC SERVICE COMMISSION

COMMONWEALTH OF KENTUCKY

APPLICATION OF ATMOS ENERGY	**)**	
	)	
CORPORATION FOR AN ADJUSTMENT	**)**	**Case No. 2021-00214**
	)	
OF RATES AND TARIFF MODIFICATIONS	**)**	

TESTIMONY OF JOSH C. DENSMAN

INDEX TO THE DIRECT TESTIMONY
OF JOSH C. DENSMAN, WITNESS FOR
ATMOS ENERGY CORPORATION

I. INTRODUCTION

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

A. My name is Josh C. Densman. I am Director Strategic Planning and Analysis for Shared Services of Atmos Energy Corporation ("Atmos Energy" or the "Company"). My business address is 5420 LBJ Freeway, 1600 Lincoln Centre, Dallas, TX 75240.

Q. PLEASE BRIEFLY DESCRIBE YOUR PROFESSIONAL AND EDUCATIONAL BACKGROUND.

A. I have a Bachelor of Business Administration from Baylor University. I have worked for Atmos Energy since 2005. I have served in a variety of positions of increasing responsibility including Vice President of Finance for the Kentucky/Mid-States Division prior to assuming my current responsibility in June, 2021.

Q. HAVE YOU SUBMITTED TESTIMONY BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION ("COMMISSION")?

A. Yes. I filed testimony in Case No. 2013-00148 and Case No. 2018-00281.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY ON MATTERS BEFORE OTHER STATE REGULATORY COMMISSIONS?

A. Yes, I have filed testimony before the Tennessee Public Utility Commission in Docket No. 12-00064.

Q. ARE YOU SPONSORING ANY OF THE FILING REQUIREMENTS IN THIS CASE, AND, IF SO, WHICH REQUIREMENTS?

A. Yes. I am sponsoring the following filing requirements:

FR 16(7)(c)	Description of all factors used in preparation of the forecast test period - income statement, operation and maintenance

	expenses, employee and labor expenses, capital construction budget;
FR 16(7)(h)	Financial Forecast (Revenues)
FR 16(7)(h)1	Operating Income Statement (Revenues)
FR16(7)(h)8	Mix of Gas Supply
FR 16(7)(h)14	Customer Forecast
FR 16(7)(h)15	Mcf Sales Volume Forecast
FR 16(8)(c)	Jurisdictional operating income summary for both base and forecast period with supporting schedules which provide breakdowns by major account group and individual account
FR 16(8)(d)	Summary of jurisdictional adjustments to operating income
FR 16(8)(i)	Comparative income statements, revenue and sales statistics, base period, forecast period and two (2) years beyond
FR 16(8)(k)	Comparative Financial Data
FR 16(8)(m)	Revenue Summary for Both the Period and Forecasted Period

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring Exhibits JCD-1 - JCD-5.

Q. DO YOU ADOPT THESE FILING REQUIREMENTS AND EXHIBITS, AND THEIR ASSOCIATED SCHEDULES, AND MAKE THEM PART OF YOUR TESTIMONY?

A. Yes.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. First, I will describe the methods used to forecast Company's revenues and volumes as they relate to the base period and test period in this case. Second, I will present the test period forecast of revenues and volumes.

III. PROCESS OF FORECASTING OF REVENUES AND VOLUMES

Q. PLEASE DESCRIBE THE GOALS OF FORECASTING REVENUE AND VOLUMES.

A. The goal of revenue forecasting, fundamentally, is to determine expected revenues for business planning purposes. The primary emphasis of the "revenue" forecasting process is the estimate of the Company's gross margin, which is that portion of revenues excluding purchased gas costs. Purchased gas costs, which are recovered through the Company's Gas Cost Adjustment ("GCA") mechanism, are calculated only as a final step in the process, to forecast gross revenues.

Revenue forecasting is an essential element of Atmos Energy's financial planning and affects our level of operating and maintenance expenses, capital investment, and cash flow requirements.

Q. WHAT TYPES OF FACTORS ARE CONSIDERED IN ATMOS ENERGY'S REVENUE AND GROWTH FORECASTING PROCESS?

A. The forecast process can be segregated into two primary steps. The first step is an analysis of revenue trends over recent years to determine a baseline reference. The second step is the consideration of factors and issues expected to affect the budget period.

First, the analysis of historical revenue trends quantifies the net customer additions and Mcf requirements, by customer class. Using heating degree day ("HDD") data for the respective periods, the Mcf requirements are "weather-normalized" for residential, commercial and public authority sales customer classes. The HDD is a measure of the difference between average daily temperature and a 65 degree Fahrenheit base. Upon completing the analysis of historic data, customer growth and class usage trends may be identified.

Second, consideration is given to any factors that could either continue or alter historical trends. These factors include, but are not limited to: gas supply price outlook and consideration of its impact on the market, changing local economic conditions that could influence customer growth and major industrial additions or plant closings.

Considered individually, these factors may have either a positive or negative effect upon forecasted revenue streams.

Q. WHAT TIME PERIOD TYPICALLY FORMS THE BASIS FOR REVENUE AND VOLUME FORECASTS?

A. Forecasts are typically prepared for Atmos Energy's fiscal year, which runs from October 1 to the following September 30.

Q. WHAT IS THE BASE PERIOD FOR THIS CASE?

A. The base period is October 1, 2020 through September 30, 2021.

Q. WHAT IS THE FORECASTED TEST PERIOD FOR THIS CASE?

A. The forecasted test period for this case is January 1, 2022 to December 31, 2022.

Q. DID THE COMPANY UTILIZE ITS TYPICAL REVENUE BUDGETING PROCESS TO DEVELOP THE BASE PERIOD AND FORECASTED TEST PERIOD REVENUES?

A. No. Although the simple two-step process of historical review and consideration of forward-looking factors is the same, the annual budget process is not developed at the level necessary for determining rate design billing determinants. For example, the typical annual revenue budget is based upon financial statistics reported to the customer class level; not to the rate classification / billing block level of detail. In order to build rate case quality billing data, Atmos Energy produced bill frequency reports to isolate correct determinants of bills rendered and volumes delivered by customer class as well as by rate classification for the 12-month period ending March 31, 2021. This 12-month period serves as the "reference period" to be normalized and upon which forward-looking adjustments may be applied, ultimately resulting in a forecast of billing determinants for the test year period of January 1, 2022 to December 31, 2022.

Q. IS THE PROCESS FOR DEVELOPING THE BASE PERIOD AND FORECASTED TEST PERIOD REVENUES THE SAME AS PRIOR RATE CASE FILINGS?

A. Yes. And it is notable that the Commission found the Company's revenue forecast in Case No. 2013-00148, Case No. 2015-00343, Case No. 2017-00349 and Case No. 2018-00281 to be reasonable and accepted the normalized base-rate revenues without adjustment.

Q. HOW WAS THE DATA FOR THE REFERENCE PERIOD GATHERED?

A. The unadjusted data for the reference period reflects the actual billing units and margins for all services during the twelve months ending March 31, 2021. This data was gathered from billing system reports for that period. Exhibit JCD-1 attached hereto provides the actual monthly billing units and volumes by class of service for the reference period ending March 31, 2021.

Q. WHAT STEPS WERE TAKEN TO FORECAST THE FUTURE TEST YEAR FROM THE BASELINE REFERENCE PERIOD?

A. First, the Company assessed appropriate pro-forma adjustments to the reference period to: 1) reflect known and measurable service contract changes, load changes, new industries and industry closings, and 2) adjust firm residential, commercial and public authority volumes to correlate to normal HDD's.

Then, forward-looking adjustments were considered to account for net customer growth or losses.

A summary of annualized adjustments for each of these steps is shown on Exhibit JCD-2 attached hereto.

Q. PLEASE DESCRIBE THE ADJUSTMENTS TO THE REFERENCE PERIOD, INCLUDING KEY ASSUMPTIONS, FOR INDUSTRIAL SALES AND TRANSPORTATION SERVICES.

A. Historical volume requirements for each transportation customer were reviewed, with adjustments made to account for expected changes by service type for future periods. For example, usage for a new industrial customer added midway through the reference period would not be representative of its forecast test period requirements.

In this case, the customer's volumes would need to be "annualized" to reflect usage throughout the full twelve months. Adjustments were also made for industry closings, expansions or reductions, and contract changes altering a customer's service type or rate schedule. These adjustments ensured that known and measurable changes in industrial sales and transportation were reflected in our test period forecast. Exhibit JCD-3 attached hereto summarizes the annualized impact of industrial contract and volume changes, by service type.

Q. PLEASE DESCRIBE THE PROCESS EMPLOYED TO DETERMINE THE ADJUSTMENT FOR WEATHER VARIANCES DURING THE REFERENCE PERIOD.

A. Adjusting for variances from normal weather is a common practice. The methodology for determining composite degree days was based on a process instituted originally in Case No. 1999-070, which utilized the composite calculated weighting weather data from Paducah, Lexington and Louisville, KY, Evansville, IN and Nashville, TN. The composite normal heating degree days were based upon the same weighting of the five weather stations, applying the National Oceanic and Atmospheric Administration ("NOAA") HDD data averages for the twenty-year period ending March 31, 2021. The Company has chosen a 20-year average HDD basis based on analysis required in the Commission Order in Case No. 2013-00148 and approved in Commission Orders in Case No. 2015-00343, Case No. 2017-00349, and Case No. 2018-00281. Later, my testimony will describe this analysis. Exhibit JCD-4 attached hereto summarizes the monthly weather adjustment to the reference period resulting from the 1.34% colder than normal period. Exhibit JCD-4 also provides details of the calculations of the respective weather adjustment for the weather sensitive residential, commercial and public authority classes.

Q. HOW ARE WEATHER NORMALIZATION ADJUSTMENT ("WNA") TARIFF REVENUES FACTORED INTO THE WEATHER ADJUSTMENT?

A. For the purpose of the weather adjustment, WNA revenues are ignored. The weather adjustment calculates the normalized volumes associated with normal weather, which will be priced out to demonstrate weather normalized revenues. Actual WNA revenues compensate for only a portion of those variances; those occurring during the WNA billing months of November 1 through April 30 each winter. The weather adjustment in this Case is intended to normalize the entire 12 month period.

Q. PLEASE DESCRIBE IN DETAIL THE HISTORICAL DATA CONSIDERED IN THE REVENUE AND VOLUME FORECASTING PROCESS.

A. To assess key historical trends necessary for the forecast, financial statistics for ten years were analyzed, noting the numbers of active customers served during that time and the total volumetric requirements by customer class. Actual sales volumes each year were adjusted for variances from normal weather, based on the current HDD composite and normal basis.

Based on the historical data, trends were noted for the customer count, net annual growth and weather normalized adjusted volumes per customer for residential, commercial and public authority classes.

Q. PLEASE DISCUSS THE HISTORICAL TRENDS OBSERVED AND THE ASSUMPTIONS USED IN THE DEVELOPMENT OF THE FORECAST TEST PERIOD BUDGET STARTING WITH NET CUSTOMER GROWTH.

A. Based on the net average annual customer growth over the past three years, I forecasted residential customer growth of 600 customers per year and commercial customer growth of 75 customers per year. Based on the same analysis of public authority classes, I forecasted zero net public authority customer changes from the reference period to the test year.

Q. WHAT IS THE ASSUMPTION FOR FUTURE DECLINING USE TRENDS AS IT RELATES TO THE TEST YEAR?

A. In Case No. 1999-070 and in subsequent cases, Atmos Energy noted the long-standing trend of declining customer usage. The trend-line for the past ten years, however, shows no apparent further decline in average customer usage. Therefore, I have not forecasted a decline in residential, commercial or public authority sales usage in this Case.

Q. WHAT WERE THE ASSUMPTIONS FOR SERVICE CHARGES AND THE LATE PAYMENT FEES?

A. I forecasted the transaction-based service charges to remain flat, equal to the experience in the twelve month reference period ending March, 2021.

Late payment fees were first adopted in Case No. 1999-070, beginning in mid-2000. Since that time, we have observed that late payment fee revenue is proportionate to the total revenues billed for residential, commercial and public authority classes. Based upon the correlation for the past few years, I estimated late payment fees at a ratio equal to 0.87% of the total projected residential, commercial and public authority class revenues.

Q. HOW WERE GAS COSTS PROJECTED FOR THE TEST YEAR?

A. Based upon the sales volumes projected, projected gas supply prices as stated in current NYMEX futures, and applying the Company's seasonal plans for storage injections and withdrawals, I modeled the forward periods to estimate the gas costs to be recovered through future GCAs. This method was first created in conjunction with Case No. 1999-070 and has been refined over time to simulate interstate pipeline demand and commodity costs, retention and other items recoverable through the GCA. This model was also utilized in the determination of storage cost balances for forward periods.

Q. IS THE FORECASTING PROCESS YOU HAVE DESCRIBED THE BEST METHOD TO USE FOR THE DEVELOPMENT OF THE TEST YEAR VOLUME AND REVENUE FORECAST IN THIS CASE?

A. Yes. The method of developing the forecast ensures a solid bridge of logical and measurable adjustments, building upon the actual performance of a recent, reference period. This forecasting process has been employed in prior Kentucky cases and, in Case No. 2013-00148, Case No. 2015-00343, Case No. 2017-00349, and Case No. 2018-00281 was found by the Commission to be reasonable and accepted the normalized base-rate revenues without adjustment.

Exhibit JCD-2 attached hereto summarizes each step of the process and applies current rates to the derived billing determinants. Exhibit JCD-5 summarizes the billing determinants for each month of the test year.

Q. PLEASE DESCRIBE HOW YOUR EXHIBITS ARE UTILIZED IN DETERMING SUMMARIZING THE REVENUE AT CURRENT RATES AS WELL AS RATES PROPOSED BY ATMOS ENERGY.

A. Brannon Taylor takes the summarized billing determinants from Exhibit JCD-5 and recalculates revenue at present rates, as shown in his Exhibit BCT-1 and BCT-2. Exhibit BCT-1 replicates my Exhibit JCD-2 walking forward each set of adjustments from the reference billing determinants to those forecast for the test period and adds in the revenue at proposed rates. Exhibit BCT-2 replicates my Exhibit JDC-5 and applies the proposed rates to calculate the revenue at present rates. Mr. Taylor discusses how he developed the proposed rates in his testimony.

IV. CONCLUSION

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF)
RATE APPLICATION OF) Case No. 2021-00214
ATMOS ENERGY CORPORATION)

CERTIFICATE AND AFFIDAVIT

The Affiant, Josh C. Densman, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared direct testimony of this affiant in Case No. 2021-00214, in the Matter of the Rate Application of Atmos Energy Corporation, and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared direct pre-filed testimony.

Josh C. Den

Josh C. Densman

STATE OF TENNESSEE
COUNTY OF WILLIAMSON

SUBSCRIBED AND SWORN to before me by Josh C. Densman on this the 11th day of June, 2021.

Pamela Pleasant

Notary Public

My Commission Expires: MARCH 6, 2024

PAMELA PLEASANT

EXHIBIT JCD-1

ATMOS ENERGY CORPORATION - KENTUCKY
BILL FREQUENCY DATA
Reference Period - Twelve Months Ending 03/31/2021

Line No.	Class of Customers	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Number Of Bills	Mcf	Rate	Total Revenue
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
1	RESIDENTIAL (Rate G-1)																
2	FIRM BILLS	159,553	159,113	158,982	158,741	158,237	158,210	159,172	159,714	161,026	161,490	161,203	162,421	1,917,862		$20.68	$39,661,386
3	Sales: 1-300	800,908	537,856	239,005	179,617	154,930	158,213	256,283	605,330	1,343,016	2,017,588	2,077,198	1,705,397		10,075,342	1.3855	13,959,386
4	Sales: 301-15000	0	0	0	0	0	0	733	0	0	566	201	0		1,500	0.9578	1,437
5	Sales: Over 15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.7651	0
6	CLASS TOTAL (Mcf/month)	800,908	537,856	239,005	179,617	154,930	158,213	257,016	605,330	1,343,016	2,018,154	2,077,400	1,705,397	1,917,862	10,076,842		$53,622,209
7																	
8	FIRM COMMERCIAL (Rate G-1)																
9	FIRM BILLS	18,278	18,113	17,891	17,755	17,615	17,599	17,830	18,061	18,333	18,505	18,482	18,682	217,144		56.25	$12,214,350
10	Sales: 1-300	330,528	208,430	136,836	133,458	117,635	138,525	174,492	265,905	538,198	813,944	845,084	704,128		4,407,163	1.3855	6,106,125
11	Sales: 301-15000	35,676	9,181	9,591	8,797	17,738	53,794	78,800	42,836	64,107	125,130	127,553	89,907		663,109	0.9578	635,126
12	Sales: Over 15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.7651	0
13	CLASS TOTAL (Mcf/month)	366,204	217,611	146,426	142,255	135,373	192,319	253,293	308,741	602,305	939,074	972,637	794,035	217,144	5,070,273		$18,955,601
14																	
15	FIRM INDUSTRIAL (Rate G-1)																
16	FIRM BILLS	207	219	214	219	216	218	222	212	215	223	226	216	2,607		$56.25	$146,644
17	Sales: 1-300	28,438	18,852	8,968	9,790	8,169	11,744	12,846	19,888	37,041	42,513	44,952	40,595		283,794	1.3855	393,196
18	Sales: 301-15000	15,834	10,226	3,503	3,411	8,163	15,930	10,787	19,891	46,786	74,752	94,325	54,095		357,703	0.9578	342,608
19	Sales: Over 15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.7651	0
20	CLASS TOTAL (Mcf/month)	44,272	29,077	12,470	13,201	16,332	27,674	23,633	39,779	83,828	117,265	139,277	94,690	2,607	641,497		$882,448
21																	
22	FIRM PUBLIC AUTHORITY (Rate G-1)																
23	FIRM BILLS	1,522	1,540	1,553	1,523	1,530	1,529	1,525	1,518	1,530	1,534	1,534	1,563	18,401		$56.25	$1,035,056
24	Sales: 1-300	66,465	45,461	26,947	19,207	19,433	22,209	29,368	50,691	95,821	131,196	136,157	123,288		766,243	1.3855	1,061,630
25	Sales: 301-15000	9,489	4,959	2,033	1,213	2,005	1,742	3,028	5,475	16,696	33,762	36,542	29,949		146,895	0.9578	140,696
26	Sales: Over 15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.7651	0
27	CLASS TOTAL (Mcf/month)	75,955	50,420	28,980	20,420	21,439	23,951	32,397	56,167	112,517	164,958	172,699	153,236	18,401	913,139		$2,237,383
28																	
29	INTERRUPTIBLE COMMERCIAL (G-2)																
30	INT BILLS	4	5	2	2	2	2	3	3	3	2	4	2	34		455.56	$15,489
31	Sales: 1-15000	1,366	996	146	1	1	1	337	1,111	1,513	2,114	3,301	2,364		13,250	0.8566	11,350
32	Sales: Over 15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.6570	0
33	CLASS TOTAL (Mcf/month)	1,366	996	146	1	1	1	337	1,111	1,513	2,114	3,301	2,364	34	13,250		$26,839
34																	
35	INTERRUPTIBLE INDUSTRIAL (G-2)																
36	INT BILLS	6	6	6	5	5	5	5	5	5	5	5	5	63		455.56	$28,700
37	Sales: 1-15000	30,567	23,548	25,646	19,799	23,276	39,423	20,589	22,877	18,294	24,550	19,704	12,435		280,710	0.8566	240,456
38	Sales: Over 15000	43,752	0	0	0	0	83,567	0	0	0	0	0	0		127,320	0.6570	83,649
39	CLASS TOTAL (Mcf/month)	74,319	23,548	25,646	19,799	23,276	122,991	20,589	22,877	18,294	24,550	19,704	12,435	63	408,029		$352,805
40																	
41	TRANSPORTATION (T-4)																
42	TRANSPORTATION BILLS	120	119	119	119	119	119	119	119	119	119	119	119	1,429		458.20	$654,589
43	Trans Admin Fee	$5,950	$5,900	$5,900	$5,900	$5,900	$5,900	$5,900	$5,900	$5,900	$5,900	$5,900	$5,900				70,850
44	EFM Fee	$6,825	$6,750	$6,750	$6,750	$6,750	$6,750	$6,750	$6,750	$6,750	$6,750	$6,750	$6,750				81,075
45	Parking Fee	$30	$11	$6	$1	$0	$1	$1	$0	$0	$0	$6	$36				92
46	Firm Transport: 1-300	36,300	33,924	34,224	32,981	32,222	32,041	33,052	34,414	35,950	35,863	36,000	36,000		412,972	1.4508	599,140
47	Firm Transport: 301-15000	480,731	322,203	323,801	346,979	336,395	350,131	373,487	428,568	466,137	557,225	593,879	584,463		5,164,000	1.0030	5,179,492
48	Firm Transport: Over 15000	138,134	100,820	77,987	90,545	88,255	90,545	131,085	132,152	129,521	167,818	205,858	156,121		1,508,842	0.8012	1,208,884
49	CLASS TOTAL (Mcf/month)	655,165	456,947	436,012	470,505	456,873	472,716	537,625	595,134	631,608	760,906	835,737	776,585	1,429	7,085,814		$7,794,122
50																	
51	ECONOMIC DEV RIDER (EDR)																
52	Firm Transport: 1-300	0	0	0	0	0	0	0	0	0	0	0	0		0	1.0391	$0
53	Firm Transport: 301-15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.7184	0
54	Firm Transport: Over 15000	1,800	1,853	0	1,997	42	0	1,764	2,765	3,257	2,882	9,662	3,488		29,508	0.5738	16,932
55	CLASS TOTAL (Mcf/month)	1,800	1,853	0	1,997	42	0	1,764	2,765	3,257	2,882	9,662	3,488		29,508		$16,932
56																	

EXHIBIT JCD-1

ATMOS ENERGY CORPORATION - KENTUCKY
BILL FREQUENCY DATA
Reference Period - Twelve Months Ending 03/31/2021

Line No.	Class of Customers	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Number Of Bills	Mcf	Rate	Total Revenue
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
57	TRANSPORTATION (T-3)																
58	TRANSPORTATION BILLS	70	70	70	70	70	70	70	70	70	70	69	69	838		457.97	$383,779
59	Trans Admin Fee	$3,450	$3,450	$3,450	$3,450	$3,450	$3,450	$3,450	$3,450	$3,450	$3,450	$3,400	$3,400				41,300
60	EFM Fee	$3,900	$3,900	$3,900	$3,900	$3,900	$3,900	$3,900	$3,900	$3,900	$3,900	$3,825	$3,825				46,650
61	Parking Fee	$215	$72	$165	$71	$99	$64	$71	$228	$315	$415	$428	$430				2,573
62	Interrupt Transport: 1-15000	429,554	401,349	371,683	377,283	364,182	368,181	394,321	424,799	440,352	457,261	456,292	442,319		4,927,573	0.8760	4,316,554
63	Interrupt Transport: Over 15000	301,093	238,049	232,095	244,887	212,948	271,892	264,160	317,866	289,585	303,164	368,435	305,549		3,349,722	0.6719	2,250,678
64	CLASS TOTAL (Mcf/month)	730,646	639,397	603,778	622,170	577,130	640,073	658,480	742,665	729,937	760,425	824,726	747,867	838	8,277,296		$7,041,535
65																	
66	SPECIAL CONTRACTS																
67	TRANSPORTATION BILLS	14	14	14	14	14	13	13	13	13	13	13	13	156		435.00	$67,995
68	Trans Admin Fee	$650	$650	$650	$650	$650	$600	$600	$600	$600	$600	$600	$600				7,450
69	EFM Fee	$750	$750	$750	$750	$750	$675	$675	$675	$675	$675	$675	$675				8,475
70	Parking / Pooling Fees	$11,992	$7,869	$7,467	$10,589	$5,875	$9,801	$6,875	$11,242	$16,253	$10,788	$7,781	$8,972				115,505
71	Transported Volumes	1,272,683	1,032,957	922,519	1,072,819	1,182,650	1,298,289	1,106,733	1,213,349	1,285,650	1,456,788	1,526,998	1,325,862		14,697,297	Various	
72	Charges for Transport Volumes	$203,594	$171,271	$141,323	$169,540	$194,297	$225,014	$187,299	$201,757	$218,598	$253,501	$266,283	$224,315				2,456,792
73	CLASS TOTAL (Mcf/month)	1,272,683	1,032,957	922,519	1,072,819	1,182,650	1,298,289	1,106,733	1,213,349	1,285,650	1,456,788	1,526,998	1,325,862	156	14,697,297		$2,656,217

EXHIBIT JCD-2

ATMOS ENERGY CORPORATION - KENTUCKY
SUMMARY OF REVENUE AT PRESENT RATES
TEST YEAR ENDING DEC, 31 2022

			Reference Period - Twelve Months Ending 03/31/2021					Forward-looking Adjustments To Test Year				
Line No.	Description	Block (Mcf)	Number of Bills, Units	Volumes As Metered	Contract Adj. Bills and Volumes	Weather Adj. Volumes (NOAA 2002-2021)	Total Volumes	Customer Growth Forecast	Conservation & Efficiency Adjustments	Total Test Year Volumes	Present Margin	Present Revenue
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(i)	(j)	(k)
1	Sales											
2	Firm Sales (G-1)	Customer Chrg	1,917,862					12,600			$20.68	$39,921,954
3		Customer Chrg	238,152		0			1,575			56.25	13,484,644
4		0 - 300		15,532,542	1,500	(142,281)	15,391,761	83,277	0	15,475,038	1.3855	21,440,666
5		301 - 15,000		1,169,208	(1,500)	(29,593)	1,138,115	4,108	0	1,142,223	0.9578	1,094,021
6		Over 15,000		0	0	0	0	0	0	-	0.7651	0
7	Interruptible Sales (G-2)	Customer Chrg	97		0						455.56	44,189
8		0 - 15,000		293,960	(77,163)		216,797			216,797	0.8566	185,709
9		Over 15,000		127,320	(77,852)		49,468			49,468	0.6570	32,500
10												
11	Transportation											
12	Customer Charges (T-4)	Customer Chrg	1,429		0						458.20	654,589
13	Customer Charges (T-3)	Customer Chrg	838		0						457.97	383,779
14	Customer Charges (SpK)	Customer Chrg	156		(5)						435.00	65,820
15	Transp. Adm. Fee	Customer Chrg	2,392		(5)						50.00	119,350
16	Parked Volumes [1]			1,181,697	0						0.10	118,170
17	EFM Charges										Various	135,825
18	Firm Transportation (T-4)	0 - 300		412,972	13		412,985			412,985	1.4508	599,159
19		301 - 15,000		5,164,000	85,162		5,249,162			5,249,162	1.0030	5,264,909
20		Over 15,000		1,508,842	203,626		1,712,468			1,712,468	0.8012	1,372,029
21	Economic Dev Rider (EDR)	301 - 15,000		0	0		0			0	0.7184	0
22		Over 15,000		29,508	(6,043)		23,465			23,465	0.5738	13,465
23	Interruptible Transportation (T-3)	0 - 15,000		4,927,573	10,407		4,937,980			4,937,980	0.8760	4,325,670
24		Over 15,000		3,349,722	56,095		3,405,818			3,405,818	0.6719	2,288,369
25	Total Special Contracts [2]			14,697,297	428,246		15,125,542			15,125,542	Various	2,516,787
26												
27	Total Tariff		2,158,534	47,212,943	622,491	(171,874)	47,663,560	101,560	0	47,750,946		94,061,604
28												
29	Other Revenues											234,286
30	Late Payment Fees											1,300,280
31	Total Gross Profit											95,596,170
32												
33	Gas Costs											77,870,753
34												
35	Total Revenue											$ 173,466,924
36												
37	[1] Parked Volumes not included in Total Deliveries.											
38	[2] Based on confidential information.											

EXHIBIT JCD-3

ATMOS ENERGY CORPORATION - KENTUCKY
VOLUME AND CONTRACT ADJUSTMENTS
Reference Period - Twelve Months Ending 03/31/2021

Line No.	Class of Customers	Apr-20 (a)	May-20 (b)	Jun-20 (c)	Jul-20 (d)	Aug-20 (e)	Sep-20 (f)	Oct-20 (g)	Nov-20 (h)	Dec-20 (i)	Jan-21 (j)	Feb-21 (k)	Mar-21 (l)	Number Of Bills (m)	Mcf (n)	Rate (o)	Total Revenue (p)
1	RESIDENTIAL (Rate G-1)																
2	FIRM BILLS													0		$20.68	$0
3	Sales: 1-300	0	0	0	0	0	0	733	0	0	566	201	0		1,500	1.3855	2,078
4	Sales: 301-15000	0	0	0	0	0	0	(733)	0	0	(566)	(201)	0		(1,500)	0.9578	(1,437)
5	Sales: Over 15000						0								0	0.7651	0
6	CLASS TOTAL (Mcf/month)	0	0	0	0	0	0	0	0	0	0	0	0	0	0		$642
7																	
8	FIRM COMMERCIAL (Rate G-1)																
9	FIRM BILLS															56.25	$0
10	Sales: 1-300															1.3855	0
11	Sales: 301-15000	0	0	0	0	0	0	0	0	0	0	0	0			0.9578	0
12	Sales: Over 15000	0	0	0	0	0	0	0	0	0	0	0	0			0.7651	0
13	CLASS TOTAL (Mcf/month)	0	0	0	0	0	0	0	0	0	0	0	0	0	0		$0
14																	
15	FIRM INDUSTRIAL (Rate G-1)																
16	FIRM BILLS	0	0	0	0	0	0	0	0	0	0	0	0	0		56.25	$0
17	Sales: 1-300	0	0	0	0	0	0	0	0	0	0	0	0		0	1.3855	0
18	Sales: 301-15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.9578	0
19	Sales: Over 15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.7651	0
20	CLASS TOTAL (Mcf/month)	0	0	0	0	0	0	0	0	0	0	0	0	0	0		$0
21																	
22	FIRM PUBLIC AUTHORITY (Rate G-1)																
23	FIRM BILLS													0		56.25	$0
24	Sales: 1-300														0	1.3855	0
25	Sales: 301-15000														0	0.9578	0
26	Sales: Over 15000														0	0.7651	0
27	CLASS TOTAL (Mcf/month)	0	0	0	0	0	0	0	0	0	0	0	0	0	0		$0
28																	
29	INTERRUPTIBLE COMMERCIAL (G-2)																
30	INT BILLS													0		455.56	$0
31	Sales: 1-15000														0	0.8566	0
32	Sales: Over 15000														0	0.6570	0
33	CLASS TOTAL (Mcf/month)	0	0	0	0	0	0	0	0	0	0	0	0	0	0		$0
34																	
35	INTERRUPTIBLE INDUSTRIAL (G-2)																
36	INT BILLS	0	0	0	0	0	0	0	0	0	0	0	0	0		455.56	$0
37	Sales: 1-15000	0	(7,242)	(15,542)	(4,994)	(6,575)	(15,000)	(4,550)	(5,822)	(4,469)	(5,293)	(4,462)	(3,214)		(77,163)	0.8566	(66,098)
38	Sales: Over 15000	(27,564)	0	0	0	0	(50,288)	0	0	0	0	0	0		(77,852)	0.6570	(51,149)
39	CLASS TOTAL (Mcf/month)	(27,564)	(7,242)	(15,542)	(4,994)	(6,575)	(65,288)	(4,550)	(5,822)	(4,469)	(5,293)	(4,462)	(3,214)	0	(155,015)		($117,246)

EXHIBIT JCD-3

ATMOS ENERGY CORPORATION - KENTUCKY
VOLUME AND CONTRACT ADJUSTMENTS
Reference Period - Twelve Months Ending 03/31/2021

Line No.	Class of Customers	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Number Of Bills	Mcf	Rate	Total Revenue
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
40																	
41	TRANSPORTATION (T-4)																
42	TRANSPORTATION BILLS	0	0	0	0	0	0	0	0	0	0	0	0	0		458.20	$0
43	Trans Admin Fee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				0
44	EFM Fee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				0
45	Parking Fee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				0
46	Firm Transport: 1-300	0	13	0	0	0	0	0	0	0	0	0	0		13	1.4508	20
47	Firm Transport: 301-15000	7,113	3,891	10,501	7,239	7,537	7,902	8,505	10,500	7,547	5,788	5,496	3,144		85,162	1.0030	85,418
48	Firm Transport: Over 15000	22,172	9,420	1,569	11,104	13,069	14,129	13,637	14,634	18,998	23,874	32,744	28,276		203,626	0.8012	163,145
49	CLASS TOTAL (Mcf/month)	29,285	13,324	12,070	18,343	20,606	22,031	22,142	25,133	26,544	29,662	38,240	31,420	0	288,801		$248,582
50																	
51	ECONOMIC DEV RIDER (EDR)																
52	Firm Transport: 1-300	0	0	0	0	0	0	0	0	0	0	0	0		0	1.0391	$0
53	Firm Transport: 301-15000	0	0	0	0	0	0	0	0	0	0	0	0		0	0.7184	0
54	Firm Transport: Over 15000	0	0	0	0	0	0	0	0	0	(888)	(5,155)	0		(6,043)	0.5738	(3,468)
55	CLASS TOTAL (Mcf/month)	0	0	0	0	0	0	0	0	0	(888)	(5,155)	0		(6,043)		($3,468)
56																	
57	TRANSPORTATION (T-3)																
58	TRANSPORTATION BILLS	0	0	0	0	0	0	0	0	0	0	0	0	0		457.97	$0
59	Trans Admin Fee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				0
60	EFM Fee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				0
61	Parking Fee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				0
62	Interrupt Transport: 1-15000	(3,560)	(4,384)	(4,589)	(624)	3,387	3,713	3,411	2,586	3,646	3,819	1,581	1,421		10,407	0.8760	9,116
63	Interrupt Transport: Over 15000	5,458	2,064	2,461	4,803	4,724	5,357	4,910	5,823	5,089	3,488	6,488	5,430		56,095	0.6719	37,690
64	CLASS TOTAL (Mcf/month)	1,897	(2,320)	(2,128)	4,179	8,111	9,069	8,321	8,410	8,734	7,307	8,069	6,851	0	66,502		$46,806
65																	
66	SPECIAL CONTRACTS																
67	TRANSPORTATION BILLS	(1)	(1)	(1)	(1)	(1)	0	0	0	0	0	0	0	(5)		435.00	($2,175)
68	Trans Admin Fee	($50)	($50)	($50)	($50)	($50)	$0	$0	$0	$0	$0	$0	$0				(250)
69	EFM Fee	($75)	($75)	($75)	($75)	($75)	$0	$0	$0	$0	$0	$0	$0				(375)
70	Parking Fee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				0
71	Transported Volumes	33,084	17,232	21,059	36,145	36,361	36,761	36,917	39,063	39,893	42,856	46,205	42,672		428,246	Various	
72	Charges for Transport Volumes	3,328	1,868	3,047	4,884	5,100	5,458	4,964	5,573	5,727	6,603	6,960	6,481				59,995
73	CLASS TOTAL (Mcf/month)	33,084	17,232	21,059	36,145	36,361	36,761	36,917	39,063	39,893	42,856	46,205	42,672	(5)	428,246		$57,195

EXHIBIT JCD-4 (A)

ATMOS ENERGY CORPORATION - KENTUCKY
WEATHER ADJUSTMENT - BASE NOAA 2002-2021
Reference Period - Twelve Months Ending 03/31/2021

Line No.	Class of Customers	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Number Of Bills	Mcf	Rate	Total Revenue
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
1	RESIDENTIAL (Rate G-1)																
2	FIRM BILLS													0		$20.68	$0
3	Sales: 1-300	86,727	(123,675)	(39,266)	(22,533)	1,655	2,364	58,234	305,529	168,593	(167,759)	(72,589)	(310,694)		(113,414)	1.3855	(157,135)
4	Sales: 301-15000														0	0.9578	0
5	Sales: Over 15000														0	0.7651	0
6	CLASS TOTAL (Mcf/month)	86,727	(123,675)	(39,266)	(22,533)	1,655	2,364	58,234	305,529	168,593	(167,759)	(72,589)	(310,694)	0	(113,414)		($157,135)
7																	
8	FIRM COMMERCIAL (Rate G-1)																
9	FIRM BILLS													0		56.25	$0
10	Sales: 1-300	68,549	44,112	33,266	21,549	24,806	(19,514)	(20,577)	117,456	61,956	(118,241)	(97,432)	(140,351)		(24,421)	1.3855	(33,835)
11	Sales: 301-15000	7,399	1,943	2,332	1,420	3,741	(7,578)	(9,292)	18,921	7,380	(18,178)	(14,706)	(17,921)		(24,539)	0.9578	(23,504)
12	Sales: Over 15000														0	0.7651	0
13	CLASS TOTAL (Mcf/month)	75,948	46,055	35,598	22,969	28,547	(27,092)	(29,869)	136,377	69,336	(136,419)	(112,138)	(158,272)	0	(48,960)		($57,339)
14																	
15	FIRM PUBLIC AUTHORITY (Rate G-1)																
16	FIRM BILLS													0		-	$0
17	Sales: 1-300	3,244	(6,488)	(2,361)	2,049	1,145	(876)	2,378	22,585	13,232	(8,367)	(4,697)	(26,291)		(4,446)	1.3855	(6,160)
18	Sales: 301-15000	463	(708)	(178)	129	118	(69)	245	2,440	2,306	(2,153)	(1,260)	(6,386)		(5,054)	0.9578	(4,840)
19	Sales: Over 15000														0	0.7651	0
20	CLASS TOTAL (Mcf/month)	3,707	(7,196)	(2,539)	2,178	1,263	(945)	2,623	25,025	15,538	(10,520)	(5,957)	(32,677)	0	(9,500)		($11,001)

EXHIBIT JCD-4 (B)

Atmos Energy - Kentucky
Normalization Of Volumes For Weather
Reference Period - Twelve Months Ending 03/31/2021
(Weather Basis: 20-years ending 2021)

Line	Month	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	Lagged Actual HDDs	326	259	6	0	0	0	98	302	610	847	959	589
2	Lagged Normal HDDs	360	127	21	0	0	2	78	371	661	824	901	598
3	Calendar Normal HDDs	219	64	2	0	0	18	216	506	775	896	743	504
4													
5	RESIDENTIAL (Rate G-1)												
6													
7	Annual Customer Growth												
8	Annual Base Load Decline												
9	Annual Total Load Decline												
10													
11	Actual Constand Load	157,887	157,452	157,322	157,084	156,585	156,558	157,510	158,047	159,345	159,804	159,520	160,725
12	Actual Heat Load	643,020	380,404	81,682	22,533	(1,655)	1,655	99,506	447,283	1,183,671	1,858,350	1,917,880	1,544,672
13	Heat Load / Customer	4.030	2.391	0.514	0.142	(0.010)	0.010	0.625	2.801	7.351	11.508	11.897	9.510
14	Actual X Coefficient	0.0127	0.0127	0.0127	0.0127	0.0127	0.0127	0.0127	0.0127	0.0127	0.0127	0.0127	0.0127
15	Product	4.5737	1.6135	0.2668	0	0	0.0254	0.991	4.7135	8.3978	10.4687	11.447	7.5974
16	Base Load	0.9896	0.9896	0.9896	0.9896	0.9896	0.9896	0.9896	0.9896	0.9896	0.9896	0.9896	0.9896
17	Normal Usage / Customer	5.5633	2.6031	1.2564	0.9896	0.9896	1.0150	1.9806	5.7031	9.3874	11.4583	12.4366	8.5870
18	No. of Customers	159,553	159,113	158,982	158,741	158,237	158,210	159,172	159,714	161,026	161,490	161,203	162,421
19	Normalized Volumes	887,635	414,181	199,739	157,084	156,585	160,577	315,250	910,859	1,511,609	1,850,395	2,004,811	1,394,703
20	Actual Volumes	800,908	537,856	239,005	179,617	154,930	158,213	257,016	605,330	1,343,016	2,018,154	2,077,400	1,705,397
21	Normalized Volume Including Unbilled	601,819	286,828	161,362	157,084	156,585	192,739	594,315	1,184,786	1,744,838	1,998,121	1,681,218	1,200,740
22	Normalized Calendar Volumes	601,999	286,914	161,411	157,131	156,632	192,797	594,493	1,185,142	1,745,362	1,998,721	1,681,724	1,201,101
23													
24	Weather Adjustment	86,727	(123,675)	(39,266)	(22,533)	1,655	2,364	58,234	305,529	168,593	(167,759)	(72,589)	(310,694)
25													
26	Tier 1	86,727	(123,675)	(39,266)	(22,533)	1,655	2,364	58,234	305,529	168,593	(167,759)	(72,589)	(310,694)
27	Tier 2												
28	Tier 3												
29	Total	86,727	(123,675)	(39,266)	(22,533)	1,655	2,364	58,234	305,529	168,593	(167,759)	(72,589)	(310,694)
30													
31													

EXHIBIT JCD-4 (B)

Atmos Energy - Kentucky
Normalization Of Volumes For Weather
Reference Period - Twelve Months Ending 03/31/2021
(Weather Basis: 20-years ending 2021)

Line	Month	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	Lagged Actual HDDs	326	259	6	0	0	0	98	302	610	847	959	589
2	Lagged Normal HDDs	360	127	21	0	0	2	78	371	661	824	901	598
3	Calendar Normal HDDs	219	64	2	0	0	18	216	506	775	896	743	504
4													
32	FIRM COMMERCIAL (Rate G-1)												
33													
34	Annual Customer Growth												
35	Annual Base Load Decline												
36	Annual Total Load Decline												
37													
38	Actual Constand Load	170,090	168,555	166,489	165,224	163,921	163,772	165,922	168,071	170,602	172,203	171,989	173,850
39	Actual Heat Load	196,113	49,056	(20,063)	(22,969)	(28,547)	28,547	87,371	140,669	431,703	766,871	800,648	620,185
40	Heat Load / Customer	10.729	2.708	(1.121)	(1.294)	(1.621)	1.622	4.900	7.789	23.548	41.441	43.320	33.197
41	Actual X Coefficient	0.0413	0.0413	0.0413	0.0413	0.0413	0.0413	0.0413	0.0413	0.0413	0.0413	0.0413	0.0413
42	Product	14.8846	5.251	0.8683	0	0	0.0827	3.225	15.3395	27.3299	34.0693	37.253	24.725
43	Base Load	9.3057	9.3057	9.3057	9.3057	9.3057	9.3057	9.3057	9.3057	9.3057	9.3057	9.3057	9.3057
44	Normal Usage / Customer	24.1903	14.5567	10.1740	9.3057	9.3057	9.3884	12.5307	24.6452	36.6356	43.3750	46.5587	34.0307
45	No. of Customers	18,278	18,113	17,891	17,755	17,615	17,599	17,830	18,061	18,333	18,505	18,482	18,682
46	Normalized Volumes	442,151	263,666	182,024	165,224	163,921	165,227	223,423	445,118	671,641	802,655	860,499	635,762
47	Actual Volumes	366,204	217,611	146,426	142,255	135,373	192,319	253,293	308,741	602,305	939,074	972,637	794,035
48	Normalized Volume Including Unbilled	335,595	216,485	167,969	165,224	163,921	176,870	325,157	545,929	758,053	857,743	739,760	563,155
49	Normalized Calendar Volumes	335,959	216,720	168,151	165,403	164,099	177,062	325,511	546,522	758,877	858,676	740,565	563,767
50													
51	Weather Adjustment	75,948	46,055	35,598	22,969	28,547	(27,092)	(29,869)	136,377	69,336	(136,419)	(112,138)	(158,272)
52													
53	Tier 1	68,549	44,112	33,266	21,549	24,806	(19,514)	(20,577)	117,456	61,956	(118,241)	(97,432)	(140,351)
54	Tier 2	7,399	1,943	2,332	1,420	3,741	(7,578)	(9,292)	18,921	7,380	(18,178)	(14,706)	(17,921)
55	Tier 3	-	-	-	-	-	-	-	-	-	-	-	-
56	Total	75,948	46,055	35,598	22,969	28,547	(27,092)	(29,869)	136,377	69,336	(136,419)	(112,138)	(158,272)
57													
58													

Atmos Energy - Kentucky
Normalization Of Volumes For Weather
Reference Period - Twelve Months Ending 03/31/2021
(Weather Basis: 20-years ending 2021)

Line	Month	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	Lagged Actual HDDs	326	259	6	0	0	0	98	302	610	847	959	589
2	Lagged Normal HDDs	360	127	21	0	0	2	78	371	661	824	901	598
3	Calendar Normal HDDs	219	64	2	0	0	18	216	506	775	896	743	504
4													
59	FIRM PUBLIC AUTHORITY (Rate G-1)												
60													
61	Annual Customer Growth												
62	Annual Base Load Decline												
63	Annual Total Load Decline												
64													
65	Actual Constand Load	22,583	22,850	23,043	22,598	22,702	22,687	22,628	22,524	22,702	22,761	22,761	23,192
66	Actual Heat Load	53,371	27,570	5,937	(2,178)	(1,263)	1,263	9,769	33,643	89,815	142,197	149,938	130,045
67	Heat Load / Customer	35.067	17.903	3.823	(1.430)	(0.826)	0.826	6.406	22.163	58.703	92.697	97.743	83.202
68	Actual X Coefficient	0.1042	0.1042	0.1042	0.1042	0.1042	0.1042	0.1042	0.1042	0.1042	0.1042	0.1042	0.1042
69	Product	37.5023	13.23	2.1876	0	0	0.2083	8.1255	38.6482	68.8583	85.8385	93.8598	62.2954
70	Base Load	14.8379	14.8379	14.8379	14.8379	14.8379	14.8379	14.8379	14.8379	14.8379	14.8379	14.8379	14.8379
71	Normal Usage / Customer	52.3402	28.0679	17.0255	14.8379	14.8379	15.0462	22.9634	53.4861	83.6962	100.6764	108.6977	77.1333
72	No. of Customers	1,522	1,540	1,553	1,523	1,530	1,529	1,525	1,518	1,530	1,534	1,534	1,563
73	Normalized Volumes	79,662	43,225	26,441	22,598	22,702	23,006	35,019	81,192	128,055	154,438	166,742	120,559
74	Actual Volumes	75,955	50,420	28,980	20,420	21,439	23,951	32,397	56,167	112,517	164,958	172,699	153,236
75	Normalized Volume Including Unbilled	57,306	33,118	23,367	22,598	22,702	25,554	56,942	102,540	146,225	165,943	141,494	105,254
76	Normalized Calendar Volumes	57,344	33,140	23,382	22,613	22,717	25,571	56,980	102,608	146,321	166,053	141,587	105,323
77													
78	Weather Adjustment	3,707	(7,196)	(2,539)	2,178	1,263	(945)	2,623	25,025	15,538	(10,520)	(5,957)	(32,677)
79													
80	Tier 1	3,244	(6,488)	(2,361)	2,049	1,145	(876)	2,378	22,585	13,232	(8,367)	(4,697)	(26,291)
81	Tier 2	463	(708)	(178)	129	118	(69)	245	2,440	2,306	(2,153)	(1,260)	(6,386)
82	Tier 3	-	-	-	-	-	-	-	-	-	-	-	-
83	Total	3,707	(7,196)	(2,539)	2,178	1,263	(945)	2,623	25,025	15,538	(10,520)	(5,957)	(32,677)

EXHIBIT JCD-5

ATMOS ENERGY CORPORATION - KENTUCKY
BILL FREQUENCY WITH KNOWN & MEASURABLE ADJUSTMENTS
TEST YEAR ENDING DEC, 31 2022
CURRENT RATES

Line No.	Class of Customers	Rate	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total Billing Units
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	RESIDENTIAL (Rate G-1)														
2	FIRM BILLS	$20.68	162,090	161,803	163,021	160,753	160,313	160,182	159,941	159,437	159,410	160,372	160,914	162,226	1,930,462
3	Sales: 1-300	1.3855	1,857,318	2,012,321	1,399,888	894,359	417,321	201,246	158,271	157,773	161,795	317,627	917,735	1,522,955	10,018,608
4	Sales: 301-15000	0.9578	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Sales: Over 15000	0.7651	0	0	0	0	0	0	0	0	0	0	0	0	0
6	CLASS TOTAL (Mcf/month)		1,857,318	2,012,321	1,399,888	894,359	417,321	201,246	158,271	157,773	161,795	317,627	917,735	1,522,955	10,018,608
7	Gas Charge per Mcf		$4.87	$4.49	$4.49	$4.49	$4.68	$4.68	$4.68	$4.69	$4.69	$4.69	$4.67	$4.67	
8	Gas Costs		$9,045,217	$9,030,639	$6,282,236	$4,013,590	$1,954,228	$942,396	$741,153	$739,225	$758,071	$1,488,202	$4,286,120	$7,112,697	$46,393,776
9															
10	FIRM COMMERCIAL (Rate G-1)														
11	FIRM BILLS	56.25	18,580	18,557	18,757	18,428	18,263	18,041	17,905	17,765	17,749	17,980	18,211	18,483	218,719
12	Sales: 1-300	1.3855	698,561	750,728	566,070	402,387	254,646	171,530	156,316	143,655	120,025	155,217	386,577	605,127	4,410,839
13	Sales: 301-15000	0.9578	107,392	113,312	72,279	43,432	11,216	12,022	10,303	21,661	46,610	70,095	62,275	72,079	642,678
14	Sales: Over 15000	0.7651	0	0	0	0	0	0	0	0	0	0	0	0	0
15	CLASS TOTAL (Mcf/month)		805,953	864,039	638,349	445,819	265,862	183,552	166,620	165,316	166,636	225,312	448,853	677,207	5,053,517
16	Gas Charge per Mcf		$4.87	$4.49	$4.49	$4.49	$4.68	$4.68	$4.68	$4.69	$4.69	$4.69	$4.67	$4.67	
17	Gas Costs		$3,925,025	$3,877,525	$2,864,700	$2,000,688	$1,244,979	$859,538	$780,246	$774,570	$780,752	$1,055,674	$2,096,288	$3,162,776	$23,422,762
18															
19	FIRM INDUSTRIAL (Rate G-1)														
20	FIRM BILLS	$56.25	223	226	216	207	219	214	219	216	218	222	212	215	2,607
21	Sales: 1-300	1.3855	42,513	44,952	40,595	28,438	18,852	8,968	9,790	8,169	11,744	12,846	19,888	37,041	283,794
22	Sales: 301-15000	0.9578	74,752	94,325	54,095	15,834	10,226	3,503	3,411	8,163	15,930	10,787	19,891	46,786	357,703
23	Sales: Over 15000	0.7651	0	0	0	0	0	0	0	0	0	0	0	0	0
24	CLASS TOTAL (Mcf/month)		117,265	139,277	94,690	44,272	29,077	12,470	13,201	16,332	27,674	23,633	39,779	83,828	641,497
25	Gas Charge per Mcf		$4.87	$4.49	$4.49	$4.49	$4.68	$4.68	$4.68	$4.69	$4.69	$4.69	$4.67	$4.67	
26	Gas Costs		$571,083	$625,029	$424,937	$198,678	$136,163	$58,395	$61,816	$76,520	$129,663	$110,729	$185,782	$391,503	$2,970,298
27															
28	FIRM PUBLIC AUTHORITY (Rate G-1)														
29	FIRM BILLS	$56.25	1,534	1,534	1,563	1,522	1,540	1,553	1,523	1,530	1,529	1,525	1,518	1,530	18,401
30	Sales: 1-300	1.3855	122,829	131,460	96,997	69,709	38,973	24,586	21,255	20,578	21,333	31,746	73,277	109,053	761,797
31	Sales: 301-15000	0.9578	31,609	35,282	23,562	9,953	4,251	1,855	1,343	2,123	1,673	3,274	7,915	19,002	141,842
32	Sales: Over 15000	0.7651	0	0	0	0	0	0	0	0	0	0	0	0	0
33	CLASS TOTAL (Mcf/month)		154,438	166,742	120,559	79,662	43,224	26,441	22,598	22,702	23,006	35,020	81,192	128,055	903,639
34	Gas Charge per Mcf		$4.87	$4.49	$4.49	$4.49	$4.68	$4.68	$4.68	$4.69	$4.69	$4.69	$4.67	$4.67	
35	Gas Costs		$752,119	$748,285	$541,031	$357,496	$202,411	$123,818	$105,823	$106,365	$107,790	$164,080	$379,193	$598,059	$4,186,470
36															
37	INTERRUPTIBLE COMMERCIAL (G-2)														
38	INT BILLS	455.56	2	4	2	4	5	2	2	2	2	3	3	3	34
39	Sales: 1-15000	0.8566	2,114	3,301	2,364	1,366	996	146	1	1	1	337	1,111	1,513	13,251
40	Sales: Over 15000	0.6570	0	0	0	0	0	0	0	0	0	0	0	0	1
41	CLASS TOTAL (Mcf/month)		2,114	3,301	2,364	1,366	996	146	1	1	1	337	1,111	1,513	13,252
42	Gas Charge per Mcf		$3.60	$3.22	$3.22	$3.22	$3.41	$3.41	$3.41	$3.42	$3.42	$3.42	$3.40	$3.40	
43	Gas Costs		$7,610	$10,622	$7,607	$4,397	$3,399	$499	$3	$2	$3	$1,152	$3,782	$5,152	$44,227
44															

EXHIBIT JCD-5

ATMOS ENERGY CORPORATION - KENTUCKY
BILL FREQUENCY WITH KNOWN & MEASURABLE ADJUSTMENTS
TEST YEAR ENDING DEC, 31 2022
CURRENT RATES

Line No.	Class of Customers	Rate	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total Billing Units
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
45	INTERRUPTIBLE INDUSTRIAL (G-2)														
46	INT BILLS	455.56	5	5	5	6	6	6	5	5	5	5	5	5	63
47	Sales: 1-15000	0.8566	19,258	15,242	9,221	30,567	16,305	10,104	14,805	16,702	24,423	16,040	17,055	13,825	203,548
48	Sales: Over 15000	0.6570	0	0	0	16,188	0	0	0	0	33,279	0	0	0	49,468
49	CLASS TOTAL (Mcf/month)		19,258	15,242	9,221	46,756	16,305	10,104	14,805	16,702	57,703	16,040	17,055	13,825	253,016
50	Gas Charge per Mcf		$3.60	$3.22	$3.22	$3.22	$3.41	$3.41	$3.41	$3.42	$3.42	$3.42	$3.40	$3.40	
51	Gas Costs		$69,331	$49,047	$29,671	$150,451	$55,649	$34,485	$50,528	$57,046	$197,086	$54,783	$58,071	$47,072	$853,220
52															
53	TRANSPORTATION (T-4)														
54	TRANSPORTATION BILLS	$458.20	119	119	119	120	119	119	119	119	119	119	119	119	1,429
55	Trans Admin Fee		5,900	5,900	5,900	5,950	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	$70,850
56	EFM Fee		6,750	6,750	6,750	6,825	6,750	6,750	6,750	6,750	6,750	6,750	6,750	6,750	$81,075
57	Parking Fee		0	6	36	30	11	6	1	0	1	1	0	0	$92
58	Firm Transport: 1-300	1.4508	35,863	36,000	36,000	36,300	33,938	34,224	32,981	32,222	32,041	33,052	34,414	35,950	412,985
59	Firm Transport: 301-15000	1.0030	563,013	599,375	587,607	487,844	326,094	334,303	354,218	343,932	358,032	381,992	439,067	473,684	5,249,162
60	Firm Transport: Over 1500	0.8012	191,692	238,603	184,398	160,305	110,240	79,556	101,649	101,324	104,674	144,723	146,786	148,519	1,712,468
61	CLASS TOTAL (Mcf/month)		790,569	873,978	808,005	684,449	470,271	448,083	488,848	477,478	494,747	559,767	620,267	658,152	7,374,615
62															
63	ECONOMIC DEV RIDER (EDR)														
64	Firm Transport: 1-300	1.039125	0	0	0	0	0	0	0	0	0	0	0	0	0
65	Firm Transport: 301-15000	0.7184	0	0	0	0	0	0	0	0	0	0	0	0	0
66	Firm Transport: Over 15000	0.5738	1,993	4,507	3,488	1,800	1,853	0	1,997	42	0	1,764	2,765	3,257	23,465
67	CLASS TOTAL (Mcf/month)		1,993	4,507	3,488	1,800	1,853	0	1,997	42	0	1,764	2,765	3,257	23,465
68															
69	TRANSPORTATION (T-3)														
70	TRANSPORTATION BILLS	457.97	70	69	69	70	70	70	70	70	70	70	70	70	838
71	Trans Admin Fee		3,450	3,400	3,400	3,450	3,450	3,450	3,450	3,450	3,450	3,450	3,450	3,450	$41,300
72	EFM Fee		3,900	3,825	3,825	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	$46,650
73	Parking Fee		415	428	430	215	72	165	71	99	64	71	228	315	$2,573
74	Interrupt Transport: 1-15000	0.8760	461,080	457,872	443,740	425,993	396,964	367,093	376,659	367,569	371,894	397,732	427,385	443,997	4,937,981
75	Interrupt Transport: Over 15000	0.6719	306,652	374,923	310,979	306,551	240,113	234,556	249,690	217,672	277,249	269,069	323,690	294,674	3,405,818
76	CLASS TOTAL (Mcf/month)		767,732	832,795	754,719	732,544	637,077	601,649	626,349	585,241	649,142	666,802	751,075	738,672	8,343,799
77															
78	SPECIAL CONTRACTS														
79	TRANSPORTATION BILLS	435.00	13	13	13	13	13	13	13	13	13	13	13	13	151
80	Trans Admin Fee		600	600	600	600	600	600	600	600	600	600	600	600	$7,200
81	EFM Fee		675	675	675	675	675	675	675	675	675	675	675	675	$8,100
82	Parking Fee		10,788	7,781	8,972	11,992	7,869	7,467	10,589	5,875	9,801	6,875	11,242	16,253	$115,505
83	Transported Volumes	Various	1,499,644	1,573,203	1,368,534	1,305,767	1,050,189	943,578	1,108,964	1,219,010	1,335,049	1,143,650	1,252,412	1,325,543	15,125,542
84	Charges for Transport Volumes		260,105	273,244	230,796	206,922	173,139	144,370	174,424	199,397	230,472	192,263	207,329	224,325	$2,516,787
85	CLASS TOTAL (Mcf/month)		1,499,644	1,573,203	1,368,534	1,305,767	1,050,189	943,578	1,108,964	1,219,010	1,335,049	1,143,650	1,252,412	1,325,543	15,125,542
86															
87	OTHER REVENUE														
88	Service Charges		$13,265	$12,790	$11,209	$25,716	$22,720	$22,154	$24,641	$21,821	$25,606	$21,842	$14,779	$17,743	$234,286
89	Late Payment Fees		$164,748	$191,837	$193,882	$149,225	$111,035	$76,826	$60,068	$56,586	$56,303	$56,497	$68,652	$114,622	$1,300,280
90															
91	**TOTAL GROSS PROFIT**		$10,436,527	$10,913,204	$9,544,524	$8,258,280	$6,900,036	$6,311,008	$6,288,465	$6,238,487	$6,374,126	$6,709,467	$8,108,026	$9,514,021	$95,596,170
92	Gas Costs		$14,370,386	$14,341,146	$10,150,182	$6,725,300	$3,596,828	$2,019,132	$1,739,569	$1,753,729	$1,973,365	$2,874,621	$7,009,235	$11,317,260	$77,870,753
93	**TOTAL REVENUE**		$24,806,913	$25,254,350	$19,694,706	$14,983,580	$10,496,864	$8,330,140	$8,028,033	$7,992,216	$8,347,491	$9,584,088	$15,117,261	$20,831,281	$173,466,923

BEFORE THE PUBLIC SERVICE COMMISSION

COMMONWEALTH OF KENTUCKY

APPLICATION OF ATMOS ENERGY	**)**	
	)	
CORPORATION FOR AN ADJUSTMENT	**)**	**Case No. 2021-00214**
	)	
OF RATES AND TARIFF MODIFICATIONS	**)**	

TESTIMONY OF T. RYAN AUSTIN

INDEX TO THE DIRECT TESTIMONY
OF T. RYAN AUSTIN, WITNESS FOR
ATMOS ENERGY CORPORATION

EXHIBITS

Exhibit TRA-1	**ADB-2021-01 – PHMSA Advisory Bulletin, Statutory Mandate To Update Inspection and Maintenance Plans To Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas From Pipeline Facilities**
Exhibit TRA-2	**ADB-2007-01 – PHMSA Advisory Bulletin, Pipeline Safety: Updated Notification of the Susceptibility to Premature Brittle-Like Cracking of Older Plastic Pipe**

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS AND AN EXECUTIVE SUMMARY OF THE PURPOSE AND CONTENT OF YOUR TESTIMONY.

A. My name is T. Ryan Austin. My business address is 3275 Highland Pointe Drive, Owensboro, KY 42303.

II. EXECUTIVE SUMMARY AND PURPOSE OF TESTIMONY

Atmos Energy continuously strives to improve the safety and reliability of its pipeline system. Vital steps in this process include (1) proactively identifying assets where the risk of failure is high and then (2) designing and implementing a plan to mitigate those risks. Through that process, Atmos Energy has identified a need to continue its Pipeline Replacement Program ("PRP") in Kentucky and modify that program to include projects that target a certain type and generation of polyethylene ("PE") pipe known as Aldyl-A, in addition to the bare steel pipe that is already the focus of our program. This modification to Atmos Energy's PRP in Kentucky is supported by federal pipeline safety regulations, advisories and guidance, industry standards, and Atmos Energy's own experience with its Kentucky system. I have outlined all of these aspects as well as the specific projects that have been identified for completion in my testimony in support of this filing.

The goal of pipeline safety regulation in the natural gas industry is to set operational standards that advance the safe transportation and delivery of natural gas to each utility's customers. The Pipeline and Hazardous Materials Safety

Administration ("PHMSA") has carefully developed a rigorous set of *minimum* standards, which are codified in Title 49 CFR Parts 191-199. The Kentucky Public Service Commission is the agency authorized to enforce these standards in Kentucky. Through this regulatory framework, Atmos Energy receives guidance and is accountable to operate and maintain its system safely. Atmos Energy diligently works to meet and surpass the requirements of these regulations through its own proactive efforts as well as cooperation with the Commission in maintaining compliance. In this way, we can build upon the standards set forth by our regulatory bodies to remain steadfast in our commitment to the safety of our customers, and the oversight of our regulators continuously confirms that we are meeting these standards for a safe natural gas transmission and distribution system. This level of commitment requires continual investment.

Today, Atmos Energy's Kentucky system has approximately 118 miles remaining of bare steel pipe in its system, most of which has been in place since before the 1960s. In addition, of the early generation plastic pipe in Atmos Energy's Kentucky system, there are approximately 205 miles of Aldyl-A. The natural gas industry has determined that these materials are no longer appropriate for use in the construction of natural gas distribution systems. Bare steel and early generation plastic pipes deteriorate with age and are prone to leaks, which impacts both the safety and reliability of the pipeline system. In order to effectively promote the safety of natural gas systems (and ultimately the safety of the communities served by those systems), a variety of factors must be taken into account to maximize the benefit of integrity management programs, including replacement of obsolete material types. The mitigation of these threats is paramount to Atmos Energy's continued system safety and reliability.

Accelerated replacement of this aging pipeline infrastructure is necessary to continue to maintain the safety and reliability of the system, given the increasing risk of leakage posed by this pipe. The Company believes that its Pipeline Replacement Program ("PRP") continues to be an appropriate means to manage and fund the necessary investments to update Atmos Energy's gas distribution system and to help ensure the system remains safe and reliable for customers over the long term.

Utilizing the PRP, Atmos Energy is proposing to continue to emphasize and complete replacement projects using a combination of risk analysis, industry-identified risk information, and input from its operational leadership whereby it can analyze, prioritize, and sequence the accelerated replacement based on the most crucial factors that impact customers and the community. In its PRP filing, the Company submits each project, project description, services and estimated costs by mains, service and meters where the Commission is able to have full transparency to review, issue discovery, and approve proposed projects before they begin.

While the safety and reliability of our system is a paramount goal for Atmos Energy, the Company understands the Commission's obligation to balance safety and cost. Atmos Energy believes that proactive replacement of bare steel and Aldyl-A projects reviewed and approved by the Commission at a flexible spending level that is deemed appropriate will strike the right balance between increased safety for the community, our customers, and property while ensuring rates continue to be reasonable for customers.

III. INTRODUCTION OF WITNESS

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am the Vice President of Technical Services for Atmos Energy Corporation's Kentucky/Mid-States Division (hereinafter "Atmos Energy" or the "Company").

Q. WHAT ARE YOUR JOB RESPONSIBILITIES?

A. My current responsibilities for the Company include oversight of engineering, geographic information systems, measurement, compliance, safety, related information technology, and procurement. My department is responsible for execution of Projects within our Pipeline Integrity Plan, Annual DOT filings, Contracting, and Project Management for planned system growth, improvement, and replacement projects. I previously served as the Program Manager for the Kentucky Pipeline Replacement Program ("PRP") from 2015 through 2017.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I earned a Bachelor of Science degree in Civil Engineering from The University of Evansville in 2000. I am a Registered Professional Engineer in the Commonwealth of Kentucky. I have been employed by Atmos Energy for 11 years. During my time at Atmos Energy I have held engineering positions of increasing responsibility (Engineer 1 – Senior 2009-2015) in Owensboro, Manager of Engineering Services with responsibilities of the Kentucky Bare Steel Pipe Replacement Program (2015-

2017) and VP of Operations for Kentucky (2017-2019) - before moving to my current role as Vice President of Technical Services in June of 2019.

Q. ARE YOU A MEMBER OF ANY PROFESSIONAL ORGANIZATIONS?

A. Yes, I am a member of the American Gas Association. Currently I also serve as a member on the Operations and Engineering Committee of the Kentucky Gas Association.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION OR OTHER REGULATORY ENTITIES?

A. No.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring the following exhibits, which are attached to my testimony:

Exhibit TRA-1	ADB-2021-01 – PHMSA Advisory Bulletin, Statutory Mandate to Update Inspection and Maintenance Plans to Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas From Pipeline Facilities;
Exhibit TRA-2	ADB-2007-01 – PHMSA Advisory Bulletin, Pipeline Safety: Updated Notification of the Susceptibility to Premature Brittle-Like Cracking of Older Plastic Pipe.

IV. PIPELINE SAFETY REGULATIONS

Q. IN YOUR POSITION, ARE YOU FAMILIAR WITH FEDERAL AND STATE REGULATIONS REGARDING PIPELINE SAFETY AND INTEGRITY?

A. Yes.

Q. IS ATMOS ENERGY SUBJECT TO THE PHMSA'S RULES AND REGULATIONS REGARDING GAS DISTRIBUTION PIPELINE SAFETY?

A. Yes. Atmos Energy is subject to the PHMSA rules and regulations as those are promulgated by the U.S. Department of Transportation ("DOT") and adopted by the Commission for Kentucky natural gas local distribution companies.

Q. DO PIPELINE SAFETY REGULATIONS SPECIFY THE FULL EXTENT OF ACTIONS A PRUDENT OPERATOR IS EXPECTED TO UTILIZE WHEN OPERATING THEIR SYSTEM?

A. No. A major challenge of developing uniform ways to address safety of natural gas pipelines is that the majority of this critical infrastructure is underground, making threats not easily observable or known. As a result, it is impossible for regulations in this area to be completely prescriptive. The pipeline safety regulations, or code (including the federal code and complementary codes adopted by the states), must therefore provide the minimum that should be done to construct, operate, and maintain a natural gas system, which serves as a framework in which operators must use their discretion to implement those standards in a manner that maximizes safety on its system given the constraints inherent in the process. Because of this, though an operator may not be able to point to a specific regulatory requirement to complete a project, it is still an operator's job to identify projects that will potentially address the highest risks and work with state regulators to strike a balance of the appropriate pace of undertaking those investments.

Q. PLEASE PROVIDE AN EXAMPLE OF HOW PHMSA REGULATIONS DIRECT OPERATORS TO USE THEIR DISCRETION IN MAKING SAFETY DECISIONS.

A. An illustrative example is 49 C.F.R. Part 192 subpart P, "Gas Distribution Pipeline Integrity Management." Each operator is required to develop and implement its own unique Distribution Integrity Management Plan ("DIMP") to mitigate risks on its system. While this subpart sets up a framework of general requirements, it leaves to the operator the duty of designing its own plan that is specific to its system that will calculate and address risk. For example, Part 192.1007(c) requires the operator to evaluate and rank risk: "An operator must evaluate the risks associated with its distribution pipeline. In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline. This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a failure." In this way, the regulation leaves to the operator the decisions of the factors and methodology that should be used to identify and address risk and the pace at which such identified risks should be addressed.

Q. PLEASE FURTHER DESCRIBE THE DIM PROGRAM.

A. The Distribution Integrity Management Program specifies how the utility will identify, assess, prioritize, and evaluate risks to the integrity of distribution lines and the manner in which those risks will be mitigated or eliminated.

Per Department of Transportation ("DOT") Part 192 Subpart P regulations, every distribution operator is required to have a Distribution Integrity Management Program (DIMP) plan in place. The seven key elements of a DIMP plan are:

1. Knowledge of distribution system
2. Identify threats
3. Evaluate relative risk
4. Identify and implement measures to reduce risk
5. Measure performance, monitor results, and evaluate effectiveness
6. Periodic evaluation and improvement
7. Report results

Through the DIM process, assets on the Kentucky system have been identified as relatively high risk and sequenced for replacement, including bare steel, low pressure, and Aldyl-A assets.

Q. WHEN THE PHMSA PIPELINE SAFETY RULEMAKING PROCESS WAS INITIATED, DID IT PROVIDE ANY INSIGHT INTO THE STATES' ROLES IN DISTRIBUTION PIPELINE SAFETY MEASURES?

A. Yes. PHMSA emphasized the importance of oversight performed directly by the States. PHMSA stated specifically:

> States must implement the minimum standards established by PHMSA but have a variety of ways in which they can oversee

> distribution pipeline safety. They can simply mirror the Federal pipeline safety program; they can impose additional requirements, beyond the Federal minimum; they can engage in special oversight programs with individual operators or groups of operators; <u>or finally, they can provide incentives for safety improvements, often through their rate-setting authority</u>. (emphasis added)
>
> It is appropriate that the principal actions for regulating distribution pipeline safety rest with the States. States need to balance safety and affordability. They need to ensure that the particular needs of their citizenry are fulfilled....[1]

Q. HAVE THE FEDERAL AND STATE PIPELINE SAFETY CHANGES DISCUSSED PREVIOUSLY IMPACTED THE WAY THAT NATURAL GAS COMPANIES MONITOR AND MANAGE THE SAFETY OF THEIR DISTRIBUTION SYSTEMS?

A. Absolutely. The federal changes and the Call to Action[2] have resulted in an increasingly proactive approach to pipeline safety.

Q. HOW HAVE THE CHANGES AND CALL TO ACTION IMPACTED ATMOS ENERGY?

A. Atmos Energy is also implementing a more proactive approach to pipeline safety. Atmos Energy's intention is not only to repair identified leaks but also to proactively identify pipes where the risks of leaks or failure are more prevalent and to then design and implement a plan to mitigate those risks. As a result, Atmos Energy is investing capital into our system at a much higher annual rate than we have historically done to address safety and integrity issues identified through the risk assessment process.

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[1] Notice of Proposed Rulemaking, 73 Fed. Reg. 36015 at 36017.

[2] PHMSA Call to Action Letter to National Association of Regulatory Utility Commissioners, Dec. 19, 2011, https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/PHMSA%20111011-002%20NARUC.pdf.

Q. HAVE THERE BEEN CHANGES TO PIPELINE SAFETY LAWS AND REGULATIONS SINCE ATMOS ENERGY'S LAST RATE CASE THAT SUPPORT ATMOS ENERGY'S COMMITMENT TO AND PLANS FOR PIPELINE REPLACEMENT?

A. Yes. In 2016 PHMSA published a Notice of Proposed Rulemaking ("NPRM") in response to the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 and related federal mandates and recommendations. The proposed rules in this NPRM have been collectively termed the "Mega Rule." On October 1, 2019, PHMSA submitted three major rules to the federal register focused on pipeline safety. Included was the first of three parts of the Mega Rule that focuses on the safety of gas transmission pipelines. The gas transmission rule requires operators of gas transmission pipelines constructed before 1970 to determine the material strength of their lines by reconfirming the Maximum Allowable Operating Pressure ("MAOP"). In addition, the rule updates reporting and records retention standards for gas transmission pipelines. PHMSA indicated that the Mega Rule will be rolled out in three separate parts. Atmos Energy anticipates that two remaining parts of the Mega Rule will require replacement of identified legacy pipeline system in order to meet traceable, verifiable, and complete record requirements.

Even more recently, on December 27, 2020, Congress signed into effect the Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020 ("PIPES Act of 2020"), which outlines provisions intended to continue to enhance safety, increase transparency, and refine the existing rulemaking process. One provision was a directive for natural gas operators to, within one year, evaluate their existing plans and take into consideration measures which would contribute to public safety and protect the environment. In advisory bulletin ADB-2021-01 dated June 4, 2021, PHMSA outlined its intention to begin performing inspections in 2022 on the adequacy of operators updated plans to meet the intent of Section 114 of the PIPES Act of 2020, including the requirement that "**Operators must also revise their plans to address the replacement or remediation of pipeline facilities that are known to leak based on their material, design, or past operating and maintenance history.**"[3] Advisory Bulletin ADB-2021-01 is attached to my direct testimony as Exhibit TRA-1.

This requirement reinforces Atmos Energy's proactive assessment of existing Aldyl-A piping and the need to immediately begin replacement.

V. ATMOS ENERGY'S PRP IS IN THE PUBLIC INTEREST

Q. IS ATMOS ENERGY'S PRP AND ASSOCIATED RATE RECOVERY MECHANISM A JUST AND REASONABLE WAY TO ADDRESS PIPELINE SAFETY AND SERVE THE PUBLIC INTEREST?

A. Yes. Inherent in the federal regulations, the integrity rules, and the associated directives, is the requirement that pipeline operators do what is reasonably necessary for the public good. The assessment, rehabilitation and proactive replacement of aging infrastructure are essential to enhancing the safety and integrity of the system. In light of the changes in the approach to federal and state

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[3] https://public-inspection.federalregister.gov/2021-12155.pdf

safety regulation and industry standards, replacement projects are essential and reasonable to ensure the continued safe and reliable operation of our system.

It is in the public interest to promote safety and investment in the integrity of our system in a systematic manner that enables diligent regulatory oversight in the areas of both safety regulation and rate regulation. In addition, implementing and funding a safety and reliability program in a manner consistent with the federal requirements and directives will afford our customers and the public the continued security and benefits associated with a safe and reliable natural gas distribution system.

Q. DO FEDERAL REGULATORS AGREE THAT ALTERNATE RATE RECOVERY MECHANISMS LIKE THE PRP ARE IN THE PUBLIC INTEREST?

A. Yes. In December of 2011, in connection with the introduction of a White Paper on State Pipeline Infrastructure Replacement Programs sponsored by the PHMSA, the PHMSA Administrator promoted the public's interest in infrastructure replacement programs in a letter to the President of the National Association of Regulatory Utility Commissioners ("NARUC"), stating:

> "[Pipeline infrastructure replacement] programs play a vital role in protecting the public by ensuring the prompt rehabilitation, repair, or replacement of high-risk gas distribution infrastructure."

Q. HAS THE FEDERAL ENERGY REGULATORY COMMISSION (FERC) ADDRESSED THIS ISSUE?

A. Yes. On April 16, 2015, FERC issued a Policy Statement addressing cost recovery mechanisms for modernization of interstate natural gas facilities in FERC Docket

No. PL15-1-000. The Policy Statement states that FERC has established a policy allowing interstate natural gas pipelines to seek recovery of certain capital expenditures made to replace infrastructure through a surcharge mechanism. On page 1 of its Policy Statement, FERC stated that its intent is to "provide greater certainty regarding the ability of interstate natural gas pipelines to recover the costs of modernizing their facilities and infrastructure to enhance the efficient and safe operations of their systems."

The FERC's Policy Statement outlined the standards that FERC will require interstate pipelines (whose rates are regulated by FERC rather than state commissions) to satisfy to establish alternate ratemaking mechanisms such as surcharges or trackers to allow them to recover the costs of replacing obsolete infrastructure and thereby enhance the efficient and safe operations of their pipeline systems.

Q. DID FERC'S POLICY STATEMENT ADDRESS THE ISSUE OF SAFETY AS A DRIVER FOR THE NEED TO REPLACE AGING INFRASTRUCTURE?

A. Yes. In Paragraph 26 of the Policy Statement, FERC stated:

> With regard to safety and reliability . . . recent pipeline accidents, including the September 2010 pipeline rupture in San Bruno, California, demonstrate the potential consequence of aging pipeline facilities that are not properly repaired, rehabilitated or replaced. OPS states that 59% of existing natural gas pipelines were built before 1970 and 69% of existing natural gas pipelines were built before 1980. DOE notes that more than half of the country's natural gas and gathering infrastructure is over 40 years old. As OPS points out, while aging pipelines are not inherently risky, older facilities have been exposed to more threats and were likely constructed without the benefit of today's safety standards or quality materials.

Q. HAS NARUC RECOGNIZED THIS NEED FOR ACCELERATED INVESTMENT IN GAS INFRASTRUCTURE?

A. Yes. In response to PHMSA's letter, NARUC issued a resolution on July 24, 2013 encouraging state commissions to "consider adopting alternative rate recovery mechanisms as necessary to accelerate the modernization, replacement and expansion of the nation's natural gas pipeline systems."

Q. IS THERE ANY REASON FOR ATMOS ENERGY TO CONTINUE REPLACING PIPE IN KENTUCKY?

A. Absolutely. As this Commission recognized and acted upon by establishing the PRP for Atmos Energy and other operators, the historic approach to integrity management is no longer sufficient, which is evident in the shift in regulations and rate recovery across the U.S. in the past decade. Prudent integrity management now means operators must more proactively identify and invest in risk control measures beyond minimum requirements. Atmos Energy's proposed amendment to its PRP is an example of such a proactive measure. The data, research, and experience of the industry have provided us with invaluable information that we can use to take a systematic approach to address and mitigate relative risk ***before*** those risks mount to the level of pipeline failure. Atmos Energy's PRP is a prudent approach to use that industry expertise and information for the benefit of our Kentucky customers and communities.

Q. HAS THE COMPANY'S PRP FUNCTIONED WELL?

A. Yes. As Company witness Gregory W. Smith testified in Case No. 2017-00349 and 2018-00281, the Company's most fundamental objective is to provide safe and reliable gas service to all customers. The PRP has enabled the Company to begin a systematic, long-term strategy of expediting the replacement of older and no longer industry-standard materials with safer, modern piping materials installed to current industry specifications.

Q. IS THE PRP ESTABLISHED IN CASE NO. 2009-00354 COMPLETE?

A. No, the Company's replacement of bare steel pipe is not complete. However, it has progressed pursuant to the schedule set by the Commission's Order in Case No. 2017-00349. As the Commission stated, "the original 15-year PRP time period should be extended and that annual ratepayer-funded PRP investment should be limited to $28 million, barring the identification of a PRP eligible pipeline-related hazard that could not have been reasonably foreseen. $28 million in annual investment should cause the remaining PRP for bare steel replacement to be complete in 6 - 7 years with estimated completion in 2027, adding two years to the originally approved 15-year timeframe."[4]

Q. HOW MUCH PROGRESS HAS BEEN MADE ON THE REPLACEMENT OF BARE STEEL PURSUANT TO THE PRP?

A. The Company had proposed to accelerate the replacement of bare steel in a manner that would have resulted in the replacement of all bare steel by 2022 as proposed in Case No. 2017-00349. However, in compliance with the Commission's final order in that proceeding, the Company has reduced the annual rate of replacement of bare steel to target completion of bare steel replacement by 2027 rather than 2022. By

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[4] *In the Matter of Electronic Application of Atmos Energy Corporation for An Adjustment of Rates and Tariff Modifications*, Case No. 2017-00349, May 3, 2018.

the end of CY2021, the Company will have approximately 118 miles of the original 345 miles of bare steel remaining in Kentucky.

Q. IS THE PRP ONLY MEANT TO ADDRESS THE REPLACEMENT OF BARE STEEL?

A. It is my understanding that, based on the Commission's decision in Case No. 2017-00349, with the exception of certain specific projects that were included in the past, the Commission considered the scope of the PRP to be solely to address the accelerated replacement of natural gas systems containing bare steel and related infrastructure.

Q. DO YOU ADVOCATE THE ACCELERATED REPLACEMENT OF MORE THAN JUST BARE STEEL?

A. Yes. As Company witnesses testified in Case Nos. 2017-00349 and 2018-00281, there are other types of pipeline materials that the industry has identified that warrant accelerated replacement. While the industry recognizes bare steel as one of the leading risk types, utilities need to have appropriate replacement cycles for <u>all</u> of their pipeline infrastructure.

I also note that the federal legislation and rulemaking activity described above are expected to result in further mitigation requirements as they reach their effective dates.

Q. WHAT DO YOU MEAN BY "REPLACEMENT CYCLES?"

A. In Kentucky, Atmos Energy has approximately 4200 miles of natural gas distribution and transmission pipeline (plus associated service lines). If we were to replace 42 miles of pipe per year (1%), it would take 100 years to renew the entire system, and at the end of that 100 years we would still have a system with some segments that were 100 years old. The reality is that the age and vintage technology of our system must be taken into account to adjust our replacement rate accordingly. For example, a majority of our bare steel systems were installed in the 1930s-1950s, already making them 70-90 years old and requiring a replacement rate that is significantly more accelerated.

Q. IN CASE NO. 2017-00349, ATMOS ENERGY TESTIFIED THAT THE ATMOS ENERGY PIPLINE SYSTEM IN KENTUCKY WAS SAFE. IS IT STILL SAFE?

A. Yes. Atmos Energy has an excellent safety record in Kentucky, which reflects our dedication to being the safest provider of natural gas through our commitment to operational excellence and proactive capital investment in the integrity of our system. The Company has been able to continue to replace aged and antiquated pipeline materials since Gregory W. Smith testified in Case Nos. 2017-00349 and 2018-00281.As noted in a recent article in S&P Global, gas distribution pipeline incidents nationwide have fallen since 2009 when PHMSA enacted rules for gas distribution systems that required pipeline operators to “continually assess, evaluate, repair, and validate" the integrity of gas distribution systems and take steps to fix threats and concerns.[5] To the extent that the Commission has facilitated implementation of those rules and guidelines in Kentucky, our customers in Kentucky have reaped those benefits. Reducing bare steel has reduced the occurrence of pipe failure and discovered leaks. Reducing leaks reduces risks to the

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[5] Smith, Sarah. *Gas Distribution Pipe Incidents Down After 2009 Safety Rule, Study Shows.* S&P Global, August 27, 2018.

public and enhances safety. As the following chart demonstrates, the rate of leaks in Kentucky has fallen steadily since the PRP began, which is strong evidence that the accelerated replacement has been effective thus far.

Table TRA-1 – Number of Active Leak Orders on Kentucky System in January of Each Year

Date	# Leaks
Jan, 2011	1,127
Jan, 2012	1,308
Jan, 2013	1,354
Jan, 2014	1,169
Jan, 2015	1,076
Jan, 2016	677
Jan, 2017	600
Jan, 2018	489
Jan, 2019	405
Jan, 2020	313
Jan, 2021	230

VI. NECESSITY TO REPLACE RELATIVELY HIGHER-RISK ASSETS

Q. HAS THE COMMISSION RECOGNIZED THE NEED FOR ACCELERATED PIPELINE REPLACEMENT IN KENTUCKY?

A. Yes. The Commission understands the importance of having a regulatory structure in place for utilities to mitigate pipeline safety risks. As mentioned previously, the Commission in Atmos Energy’s last rate case reiterated “[t]o the extent that the pipeline eligible for recovery poses a safety risk to the utility's customers, service areas, and employees, the Commission has proven itself to be in favor of accelerated replacement.”[6] In its Final Order in Case No. 2018-00086, the Commission commented specifically on Aldyl-A replacement:

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[6] *In the Matter of Electronic Application of Atmos Energy Corporation for An Adjustment of Rates and Tariff Modifications*, Case No. 2018-00281, May 7, 2019, Final Order at p. 14.

> *The Commission is aware of the risk associated with Aldyl-A pipe. As Delta states in its application, Aldyl-A is subject to slow crack growth that leads to eventual rupture of the pipe. Furthermore, Aldyl-A has been the subject of several PHMSA bulletins, the most recent of which is attached hereto as Appendix B. Due to the significant amount of pre-1983 Aldyl-A pipe that exists in the Delta system, the Commission finds that the Aldyl-A pipe should be replaced in a 15-year time frame. As of the date of this Order, the newest of the Aldyl-A pipe on Delta's system is at least 35 years old. At the conclusion of Delta's proposed PRP, the newest of the Aldyl-A pipe will be at least 50 years old. Given that Aldyl-A pipe was installed on Delta's system as early as 1965, and some has already been in service nearly 55 years, the Commission finds that now is an appropriate time to plan for the replacement of Aldyl-A pipe. The Commission expects Delta to continue to prioritize its PRP to replace pipe based on risk, and pipe in high-consequence areas, whether it be bare steel or Aldyl-A pipe.*[7]

Q. PLEASE DESCRIBE THE VARIOUS PIPE MATERIALS THAT ARE UTILIZED IN ATMOS ENERGY'S KENTUCKY GAS DISTRIBUTION SYSTEM.

A. The U.S. Department of Transportation ("DOT") uses the following categories to classify main and service line materials: steel, ductile iron, copper/wrought iron, plastic PVC, plastic polyethylene ("PE"), plastic ABS[8], plastic other and other. Steel pipe has been used in the natural gas industry since the 1800s and the use of plastic pipes began in the 1960s. As improved materials are developed, older materials are discontinued or phased out by the industry. As a result, the Company has many miles of pipe in our distribution system in Kentucky that are made of materials that are no longer used by Atmos Energy in new natural gas pipeline construction.

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[7] *Electronic Adjustment of the Pipe Replacement Program Rider of Delta Natural Gas Company, Inc.*, Case No. 2018-00086, *Order* at p. 3-4 (Ky. PSC August 21, 2018).

[8] Acrylonitrile butadiene styrene.

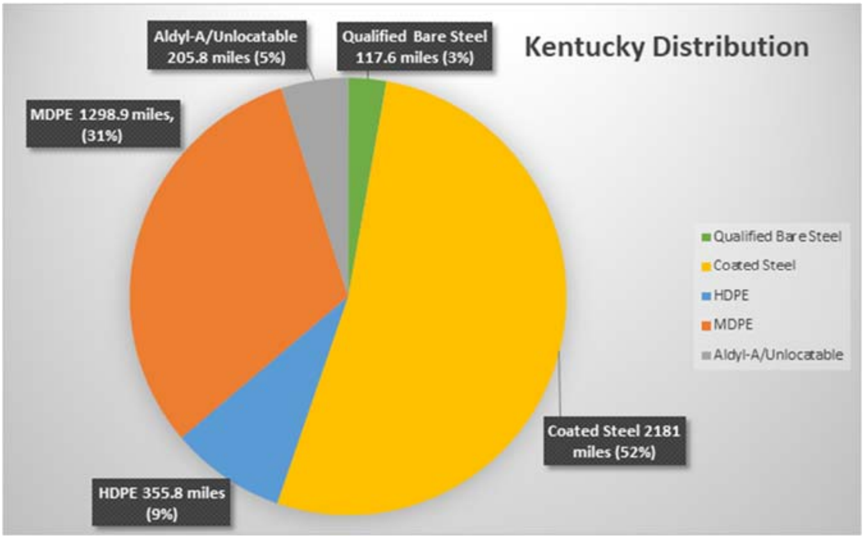
Steel pipe is categorized as bare steel or coated steel. In addition, each of those categories can be further broken down as cathodically protected or unprotected. Bare steel pipe is the oldest pipe in Atmos Energy's Kentucky system. Currently there are approximately 118 miles of bare steel mains in Atmos Energy's Kentucky system.

Similar to steel pipe, plastic pipe has undergone significant technological advancements over the past several decades. In Atmos Energy's Kentucky system, the early generation plastic categories consist of Aldyl-A pipe.

Aldyl-A is an early generation PE pipe installed by the natural gas industry from the 1960s through the 1980s. Technological advancements led the natural gas industry to discontinue the use of Aldyl-A and adopt medium density PE (MDPE) pipe. Currently, there are approximately 205 miles of Aldyl-A main in service in Atmos Energy's Kentucky gas distribution system.

Atmos Energy's Kentucky pipeline mains by material is shown on Table TRA-1 below.

Table TRA-2 – Atmos Energy Kentucky Distribution Pipeline by Material



Q. WHAT PARAMETERS OF THE PRP IS ATMOS ENERGY PROPOSING IN THIS CASE?

A. In this case, Atmos Energy is requesting authority to amend its PRP tariff for inclusion projects to begin the targeted replacement of Aldyl-A, in addition to the currently authorized bare steel. The projects identified are expected to include all bare steel and Aldyl-A over a period determined to be prudent through the implementation of Atmos Energy's approved DIMP. In order to recover the costs of these investments between rate cases and reduce the need for frequent general rate case filings, Atmos Energy is requesting authority to amend its PRP tariff. The amended PRP, if approved, will facilitate the complete retirement or replacement of the two material types posing the highest relative risk to safety and reliability based upon industry guidance and Atmos Energy's expertise and experience in Kentucky. The assessment of the likelihood of failure includes information regarding materials that are prone to failure over time from the threat of corrosion (for bare steel) and brittle cracking (for Aldyl-A). Atmos Energy believes these assets should be replaced on a more accelerated basis than the pace currently in place with a long-term view in mind of the safety and reliability of the Company's gas distribution system.

Q. IS ATMOS ENERGY PROPOSING IN THIS RATE CASE TO INCLUDE IN ITS PRP PROJECTS MATERIALS OTHER THAN BARE STEEL AND ALDYL-A?

A. No. Atmos Energy will continue to monitor and comply with PHMSA's Distribution Integrity Management Program rules and other applicable rules and regulations. If Atmos Energy develops concerns about other materials, through insight of our own, or industry bulletins or safety concerns, Atmos Energy will inform the Commission and include the potential threats posed by those materials in its continuous evaluation of relative risk.

A. BARE STEEL PIPELINE REPLACEMENT

Q. WHAT ARE THE MAIN CAUSES OF LEAKS ON BARE STEEL PIPE?

A. The most frequent cause of leaks on bare steel pipe is corrosion. Excluding excavation damage, approximately 84% of all below ground leaks repaired on Atmos Energy's bare steel system in Kentucky over the past four years were caused by corrosion.

Q. CAN CORROSION ON BARE STEEL PIPE BE EXPECTED TO CONTINUE IN THE FUTURE?

A. Yes. Once the corrosion process has started on bare steel pipe, it will continue until the pipe fails or is replaced.

Q. DOES CATHODIC PROTECTION ELIMINATE THE DETERIORATION OF BARE STEEL PIPE?

A. No. Cathodic protection is a technique used to control the corrosion rate of a metal surface. Properly applied cathodic protection reduces the rate of corrosion but does not eliminate corrosion from occurring.

Q. WHY IS THAT A CONCERN?

A. The majority of the remaining 118 miles of Atmos Energy's bare steel pipe has been in the ground since before the 1960s. As the bare steel pipe continues to age, it deteriorates and develops leaks. Allowing bare steel pipe to remain in the ground increases the risk to public safety and the reliability of our system.

Q. WHAT TYPES OF MATERIALS IS ATMOS ENERGY USING TO REPLACE THE BARE STEEL PIPE?

A. Depending on the system maximum allowable operating pressure, Atmos Energy is replacing bare steel pipe with either High Density PE or coated steel pipe.

B. ALDYL-A REPLACEMENT

Q. PLEASE PROVIDE ADDITIONAL DETAIL ABOUT ATMOS ENERGY'S ALDYL-A PIPE.

A. Atmos Energy's Kentucky gas distribution system still contains approximately 205 miles of Aldyl-A pipe. While this pipe is not generally as old as the bare steel pipe in Atmos Energy's Kentucky distribution system, it is nonetheless made of materials that are considered obsolete and no longer used in the natural gas industry. Following bare steel pipe, the Company considers Aldyl-A the next most significant risks on its system and has been studying the change in leakage rates of Aldyl-A systems as PRP has progressed.

Q. WHAT ARE THE MAIN CAUSES OF LEAKS ON ALDYL-A PIPE?

A. As these materials age, the structure of the pipe weakens, becomes brittle and eventually cracks. In 2007, PHMSA issued an Advisory Bulletin ADB-07-01 for updated notification of the susceptibility of older plastic pipes to premature brittle-like cracking. The older pipes listed included Aldyl-A. The advisory bulletin noted that:

> Brittle-like cracking refers to crack initiation in the pipe wall not immediately resulting a full break followed by stable crack growth

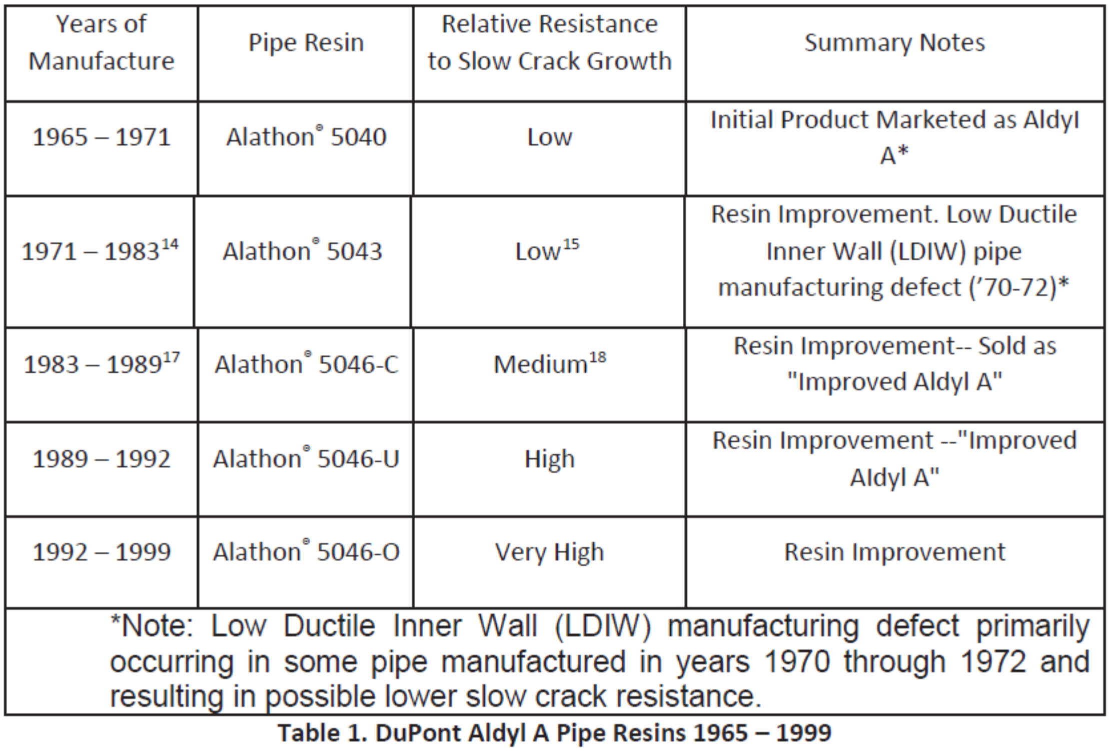
> at stress levels much lower than the stress required for yielding. This results in very tight, slit-like, openings and gas leaks. Although significant cracking may occur at point of stress concentration and near improperly designed or installed fittings, small brittle-like cracks may be difficult to detect until a significant amount of gas leaks out of the pipe, and potentially migrates into an enclosed space such as a basement.

A copy of the Advisory Bulletin is included as Exhibit TRA-2. The brittle-like cracking characteristic could cause a leak on an early vintage plastic pipeline such as Aldyl-A to grow and release additional natural gas than would normally be released, increasing the risk of natural gas gathering and igniting.

Q. DOES PHMSA BULLETIN ADB-07-01 MAKE A DISTINCTION AMONG TYPES OF ALDYL-A PIPE?

A. Yes. PHMSA Advisory Bulletin ADB-07-01 follows up on Advisory Bulletins ADB-99-01, ADB-99-02, and ADB-02-07 and provides updated notification of the susceptibility of older plastic pipes to premature brittle-like cracking. Among older polyethylene pipe materials these included, but are not limited, to Aldyl-A manufactured before 1973. The American Gas Association has also produced a technical document that expands on the pipe manufactured between 1971 and 1983. This pipe still has issues with brittle cracking and should be replaced as well. Table TRA-3 below is a summary of the American Gas Association documents highlighting the risks of cracking associated with various types of Aldyl-A pipe:

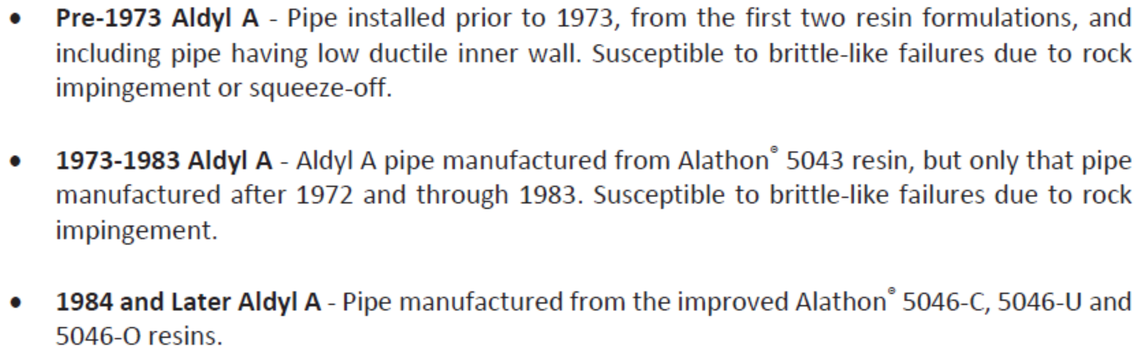
Table TRA-3



Years of Manufacture	Pipe Resin	Relative Resistance to Slow Crack Growth	Summary Notes
1965 – 1971	Alathon® 5040	Low	Initial Product Marketed as Aldyl A*
1971 – 1983[14]	Alathon® 5043	Low[15]	Resin Improvement. Low Ductile Inner Wall (LDIW) pipe manufacturing defect ('70-72)*
1983 – 1989[17]	Alathon® 5046-C	Medium[18]	Resin Improvement-- Sold as "Improved Aldyl A"
1989 – 1992	Alathon® 5046-U	High	Resin Improvement --"Improved Aldyl A"
1992 – 1999	Alathon® 5046-O	Very High	Resin Improvement

*Note: Low Ductile Inner Wall (LDIW) manufacturing defect primarily occurring in some pipe manufactured in years 1970 through 1972 and resulting in possible lower slow crack resistance.

Table 1. DuPont Aldyl A Pipe Resins 1965 – 1999



- **Pre-1973 Aldyl A** - Pipe installed prior to 1973, from the first two resin formulations, and including pipe having low ductile inner wall. Susceptible to brittle-like failures due to rock impingement or squeeze-off.

- **1973-1983 Aldyl A** - Aldyl A pipe manufactured from Alathon® 5043 resin, but only that pipe manufactured after 1972 and through 1983. Susceptible to brittle-like failures due to rock impingement.

- **1984 and Later Aldyl A** - Pipe manufactured from the improved Alathon® 5046-C, 5046-U and 5046-O resins.

Q. IS ATMOS ENERGY'S EXPERIENCE WITH ALDYL-A IN ITS KENTUCKY SYSTEM CONSISTENT WITH THIS INFORMATION FROM PHMSA?

A. Yes. Over the past ten years, in Kentucky leaks on Aldyl-A within our system have averaged 35% higher per 100 miles of pipe than leaks on other types of PE pipe.

When compared with leaks on coated steel, the rate is over 250% higher per 100 miles of pipe.

Atmos Energy's system in Cadiz, Kentucky is a good example of how we see the susceptibility to cracking of Aldyl-A. The Cadiz system was installed in the mid-1960's and is entirely Aldyl-A pipe. The system has had a history of leaks caused by the rocky bedding conditions impinging on the Aldyl-A pipe which has proven to lead to increased cracking. This area also has tracer wire on the pipe that has deteriorated with time which make it difficult to locate.

Q. HAVE YOU IDENTIFIED OPERATIONAL ISSUES RELATED TO ALDYL-A THROUGHOUT YOUR SYSTEM IN KENTUCKY, IN ADDITION TO LEAKS?

A. Yes. Most of our Aldyl-A within the system is unlocatable or difficult to accurately locate due to deterioration of the type of tracer wire installed during the 1960's and 1970's. In recent years, there has been an increase in directional boring and the installation of fiber into neighborhoods throughout our state. In our Mayfield and Paducah offices, we have needed to keep 2 to 3 technicians locating and watching these contractors full time just to keep up with the demand due to the effort it takes to try to locate the lines to try to prevent damages and potential outages for our customers.

In addition, as communities we serve within the state grew, the systems that were Aldyl-A were extended to serve the new growth areas. It has been our experience that the tie-in locations for extensions on Aldyl-A pipe are more prone to develop cracking and eventually failures.

Aldyl-A tap tees in our Kentucky system also have a history of failure on the screw-on caps. The caps crack and even break off which creates leaks. The rate is of failure has been substantial enough that the industry has developed electrofusion repair kits to repair or replace the caps on the tap tees.

Q. IS REPLACEMENT OF THIS PIPE THE ONLY POSSIBLE REMEDY?

A. Yes, replacement is the only remedy for these pipes over time. As stated above, Aldyl-A pipe is no longer used for new installations. There is no remedial action that will reverse the brittle cracking of this early generation plastic pipe.

Q. DOES ALL OF THE COMPANY'S ALDYL-A NEED TO BE REPLACED IMMEDIATELY?

A. No. Consistent with the principles of Distribution Integrity Management, the Company intends to prioritize replacement by examining the facts of the Aldyl-A sections in its system. The prioritization of replacement takes into account factors such as age of material, location of the pipe in relation to population, and relative risk from third party damage. Based on consideration of these risk factors, the Company has identified specific sections of Aldyl-A that should be replaced immediately, and under its current proposal would anticipate the longer-term replacement of the remainder of Aldyl-A in its system by 2030.

Q. SHOULD THE COMMISSION ALLOW THE COMPANY TO INCLUDE ALDYL-A IN ITS PRP, HOW LONG DOES THE COMPANY PLAN THE REPLACEMENT TO LAST?

A. The Company would begin to incrementally add in Aldyl-A projects in FY22 in addition to its approximately $28 million of bare steel projects that the Company has discussed. As we complete more of the bare steel projects, we would begin to transition the crews working on bare steel to focus on the Aldyl-A projects. At this rate, the estimated completion of the known Aldyl A would be approximately by 2030.

Q. PLEASE DISCUSS HOW THE COMPANY WOULD STRATEGICALLY APPROACH THE REPLACMENT OF ALDYL-A IN ITS KENTUCKY DISTRIBUTION SYSTEM UNDER ITS PROPOSED PRP AMENDMENT?

A. The Company would systematically decide which projects need to be prioritized in the early years of the program based on age of material, location of the pipe in relation to population, and relative risk from third party damage. As mentioned above, the system in Cadiz, Kentucky was installed in the mid-1960's and is entirely Aldyl-A pipe. The system has had a history of leaks caused by the rocky bedding conditions impinging on the Aldyl-A pipe which has proven to lead to increased cracking. This area also has tracer wire on the pipe that has deteriorated with time which make it difficult to locate. The Cadiz area is one of the areas we would target first for replacement because of the knowledge we have from the historical records of the system and the risk factors involved. As the older and higher relative risk portions are replaced the Company would then move on to the later generations of Aldyl-A. The Company would also be mindful in its balancing of the work load of the projects by area to minimize the impacts to local towns and other utilities not to overwhelm available resources.

Q. DO YOU KNOW THE VINTAGES OF ALDYL-A IN YOUR SYSTEM?

A. Yes. Please see Table TRA-4 below.

Table TRA-4

Kentucky Aldyl-A System (in miles)	
Unknown Install Year	**33.5**
Pre 1973	**124.4**
1973 to 1983	**41.0**
Post 1983	**6.9**

Q. ARE YOUR INITIAL ALDYL-A PROJECTS PROPOSED PRE-1973 ALDYL-A PIPE?

A. Mostly. The Company's Aldyl-A projects it is initially targeting for replacement are pre-1973 Aldyl-A pipe with the exception of some smaller sections identified that we feel warrant the replacement ahead of others due to additional risk factors or operational synergies. For example, there may be a small section of post-1973 Aldyl-A pipe in the near vicinity of a project of older vintage already identified for replacement. While this relatively newer section of Aldyl-A may not have been identified as a standalone project, it may be included because of the operational efficiencies of replacing it simultaneously with the adjacent sections and/or because there are risk factors other than age that influence the priority of the project, such as location in a highly populated or growing area with high probability of construction.

Q. WHAT ARE THE ESTIMATED CAPITAL COSTS OF THE COMPANY'S INITIALLY PROPOSED ALDYL-A PROJECTS?

A. The Company would plan to include the additional Aldyl-A projects in its FY22 timeframe in addition to its projected $28 million of bare steel replacement. The costs of the incremental Aldyl-A projects for FY22 are currently projected at $2.79 million. For FY23 the Aldyl-A projects are currently projected at $5.22 million.

The graph below lists each Aldyl-A project the Company would propose to do in FY22 and FY23:

Table TRA-5 – Proposed PRP Projects for Fiscal Year 2022

Project Name	Project Description
Aldyl.2635.Hillview Dr	Replace 2,176' of 2" PE, 2581' of 2" Aldyl A and 2,453' of 1.25" Aldyl A with 7,209' of 2" HDPE. 59 Services
Aldyl.2635.Sunset Circle	Replace 11' of 2" PE, 20' of 1.25" PE, 3,155' of 2" Aldyl A, and 2,585' of 1.25" Aldyl A with 5,777 of 2" HDPE. 70 Services
Aldyl.2635.Westend St	Replace 1,636' of 2" PE and 4,060' of 2" Aldyl A with 5,696' of 2" HDPE. 47 Services
Aldyl.2635.2nd St	Replace 149' of 1.25" PE, 1,340' of 2" Aldyl A, 1,488' of 1.25" Aldyl A, 1,145' of 2" PE, with 4,645' of 2" HDPE. 64 services

Table TRA-6 – Proposed PRP Projects for Fiscal Year 2023

Project Name	Project Description
Aldyl.2636.KY 181	Replace 85' of 2" Fusion Bond Epoxy, 6,898' of 2" Aldyl A, 5' of unknown coating or size, 242' of 2" PE with 2" HDPE. 40 Services
Aldyl .2635.Lincoln Ave Cadiz	Replace 2,599' of 2" Aldyl A, 3,407' of 2" PE, 1,002' of 1" Aldyl A, with 7,008' of 2" HDPE. 53 services
Aldyl .2635.Lafayette St Cadiz	Replace 99' of 1.25" PE, 4,678' of 2" Aldyl A, 819' of 1.25' Aldyl A, 832' of 2" PE, 10' of unknown size or coating, 134' of 1" Aldyl A, with 6,579' of 2" HDPE. 54 services
Aldyl Monterey Rd	Replace 2,371' of 2" PE, 5,605' of 2" Aldyl A, with 7,975' of 2" HDPE. 65 services

Aldyl Spence Ln	Replace 1,212' of 2" PE, 2,634' of 2" Aldyl A, with 3,846' of 2" HDPE. 40 services
Aldyl.2734.Walnut St	Replace 101' of 1.25" Steel unknown coating, 3' of 1.25" PE, 3,054' of 2" Aldyl A, 5,682' of 1.25" Aldyl A, with 8,194' of 2" HDPE, 61 services
Aldyl.2734.N High St	Replace 5' of 2" PE, 4,249' of 2" Aldyl, 769' of 1.25" Aldyl A, with 5,023' of 2" HDPE. 70 services
Aldyl.2734.Fugate Ave	Replace 1,094' of 2" PE, 481' of 2" Aldyl A, 3,124' of 1.25" Aldyl A, with 4,699' of 2" HDPE. 41 services

Q. WOULD THE COMMISSION HAVE THE OPPORTUNITY TO REVIEW THE COMPANY'S PROPOSED ALDYL-A PROJECTS UNDER THE PROPOSED AMENDMENT TO THE PRP TARIFF?

A. Yes, the Commission would have the opportunity to review the project details of the Company's Aldyl-A projects each year under the Company's annual PRP filings.

C. THE BENEFITS OF ACCELERATED PIPELINE REPLACEMENT

Q. BASED ON HISTORICAL SPENDING TRENDS, WOULD ATMOS ENERGY BE ABLE TO MAKE SIGNIFICANT PROGRESS IN THE REPLACEMENT OF THE ALDYL-A PIPE IN KENTUCKY IF THE REPLACEMENT IS NOT ACCELERATED WITHIN PRP?

A. No. Based on the current rate the Company would replace all bare steel by 2028 at which time pipeline replacement focus would shift to Aldyl-A. By expanding the PRP to include Aldyl-A the Company would start targeted replacement of Aldyl-A beginning in 2022 – six years earlier – and expect the life of the Aldyl-A replacement under PRP by 2030. Without the inclusion of Aldyl-A in its PRP it would be much more difficult to make a significant impact with current capital constraints and to replace Aldyl-A in the Company's system by the 2030 timeframe.

Q. WHY IS THE ACCELERATED REPLACEMENT OF THESE PIPELINES APPROPRIATE?

A. It is both reasonable and prudent for the Company to pursue the accelerated replacement of pipe comprised of materials with known and documented risks. Replacement of these pipes allows Atmos Energy to mitigate the risk of incidents that can result in death, injury, or significant property damage. It would be in the public interest to allow Atmos Energy to utilize the PRP to accelerate the replacement of this infrastructure.

Q. ULTIMATELY, WHAT ARE THE BENEFITS TO CUSTOMERS OF THE ACCELERATED REPLACEMENT OF THIS INFRASTRUCTURE?

A. Accelerated replacement will improve system safety and reliability. Replacing the Aldyl-A pipe will also provide the opportunity to update the associated service lines and meter sets to customers' homes. This action brings furthers safety and reliability such as installing Excess Flow Valves in the new service lines to reduce the potential for gas escaping the pipe if the service line is cut or damaged, installing more section valves to be able to isolate certain parts of the system which could reduce the number of customers impacted by third party damages, as well as allowing improved up-to-date records and mapping to assist with locating and reducing third party damages.

The proposed tariff amendment to PRP will also reduce the inconvenience to the public by taking a proactive approach to project identification and execution rather than a reactive approach. Historically, many projects are identified and executed to eliminate an immediate hazardous threat to public safety and customer reliability. Since our concern is typically a single immediate threat, we often narrowly define the project scope to quickly eliminate only that threat. This narrow approach necessitated by the immediate hazardous threat approach can lead to missed opportunities for efficiency by expanding the scope of a retirement or replacement project to include adjacent facilities that do not yet pose an immediate threat but nevertheless pose risks to the system. Expanding the PRP mechanism will facilitate Atmos Energy's replacement of bare steel and Aldyl-A pipe in an area prior to the detection of an immediate hazardous threat so each project can be more efficient in both size and scope.

VII. AFFIRM COMMITMENT

Q. IN LIGHT OF THE PROPOSED EXPANSION TO INCLUDE INDUSTRY-IDENTIFIED MATERIALS TO THE COMPANY'S PRP TARIFF, HAS THE IMPORTANCE OF PROACTIVELY REPLACING BARE STEEL CHANGED?

A. No. As I said earlier, replacing bare steel lines is a high priority and the Company will still be replacing bare steel at the ordered spending rate as affirmed by the Commission in Case No. 2018-00281.[9]

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[9] Case No. 2018-00281, *Electronic Application of Atmos Energy Corporation for an Adjustment of Rates* (Ky. PSC May 7, 2019), final Order at 15-16.

Q. WILL THE COMPANY STILL PREPARE AND FILE THE SAME INFORMATION AS IT DOES UNDER THE PRP FOR ITS PROPOSED PRP TARIFF AMENDMENT?

A. Yes. The Company will provide the same level of detail as it always does in its PRP filings, including all forecasted projects.

VIII. CONCLUSION

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF)
RATE APPLICATION OF) Case No. 2021-00214
ATMOS ENERGY CORPORATION)

CERTIFICATE AND AFFIDAVIT

The Affiant, Timothy (Ryan) Austin, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared direct testimony of this affiant in Case No. 2021-00214, in the Matter of the Rate Application of Atmos Energy Corporation, and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared direct pre-filed testimony.

Timothy R. Austin

STATE OF KENTUCKY

COUNTY OF DAVIESS

SUBSCRIBED AND SWORN to before me by Timothy R. Austin on this the 25 day of June, 2021.

CLARY HOWARD
Notary Public, Kentucky - State at Large
Notary ID KYNP2030
My Commission Expires February 19, 2024

Clary Howard
Notary Public

My Commission Expires: 2-19-24

Exhibit TRA-1

SMALL BUSINESS ADMINISTRATION

National Small Business Development Center Advisory Board

AGENCY: Small Business Administration.

ACTION: Notice of open Federal Advisory Committee meeting.

SUMMARY: The SBA is issuing this notice to announce the date, time and agenda for a meeting of the National Small Business Development Center Advisory Board. The meeting will be open to the public; however, advance notice of attendance is required.

DATES: Wednesday, July 28, 2021 at 2:00 p.m. EDT.

ADDRESSES: Meeting will be held via Microsoft Teams.

FOR FURTHER INFORMATION CONTACT: Rachel Karton, Office of Small Business Development Centers, U.S. Small Business Administration, 409 Third Street SW, Washington, DC 20416; *Rachel.newman-karton@sba.gov;* 202–619–1816.

If anyone wishes to be a listening participant or would like to request accommodations, please contact Rachel Karton at the information above.

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a) of the Federal Advisory Committee Act (5 U.S.C. Appendix 2), the SBA announces the meetings of the National SBDC Advisory Board. This Board provides advice and counsel to the SBA Administrator and Associate Administrator for Small Business Development Centers.

Purpose

The purpose of the meeting is to discuss the following issues pertaining to the SBDC Program:

- Cybersecurity
- Outreach to underserved communities
- Strategies for getting Small Business back to normal

Andrienne Johnson,

Committee Management Officer.

[FR Doc. 2021–12222 Filed 6–9–21; 8:45 am]

BILLING CODE P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA–2021–0050]

Pipeline Safety: Statutory Mandate To Update Inspection and Maintenance Plans To Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas From Pipeline Facilities

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION: Notice; issuance of advisory bulletin.

SUMMARY: PHMSA is issuing this advisory bulletin to remind each owner and operator of a pipeline facility that the ‘‘Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020’’ (PIPES Act of 2020) contains a self-executing mandate requiring operators to update their inspection and maintenance plans to address eliminating hazardous leaks and minimizing releases of natural gas (including intentional venting during normal operations) from their pipeline facilities. Operators must also revise their plans to address the replacement or remediation of pipeline facilities that are known to leak based on their material, design, or past operating and maintenance history. The statute requires pipeline operators to complete these updates by December 27, 2021.

FOR FURTHER INFORMATION CONTACT: Sayler Palabrica, by phone at 202–366–0559 or by email at *Sayler.Palabrica@dot.gov.*

SUPPLEMENTARY INFORMATION: Natural gas is composed primarily of methane, therefore leaks and other releases of natural gas emit methane gas into the atmosphere. According to the U.S. Environmental Protection Agency (EPA), methane is a potent greenhouse gas with a global warming potential (GWP) of 28–36 over 100 years.[1] Compared to carbon dioxide, methane gas has a stronger warming effect, but a shorter lifespan in the atmosphere. Due to the high GWP and short lifespan of methane gas in the atmosphere, minimizing releases of natural gas (both fugitive and vented emissions) has relatively near-term benefits to mitigating the consequences of climate change. Likewise, remediation or replacement of pipeline facilities that are known to leak based on material, design or past operating and maintenance history can result in enhanced public safety, environmental protection, and economic benefits.

The ‘‘Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020’’ (Pub. L. 116–260, Division R; ‘‘PIPES Act of 2020’’) was signed into law on December 27, 2020. This law contains several provisions that specifically address the elimination of hazardous leaks and minimization of releases of natural gas from pipeline facilities. Section 114(b) of the PIPES Act of 2020 contains self-executing provisions that apply directly to pipeline operators. This section requires each pipeline operator to update its inspection and maintenance plan required under 49 U.S.C. 60108(a) no later than one year after the date of enactment of the PIPES Act of 2020 (*i.e.,* by December 27, 2021) to address the elimination of hazardous leaks and minimization of releases of natural gas (including, and not limited to, intentional venting during normal operations) from the operators’ pipeline facilities (49 U.S.C. 60108(a)(2)(D)). The PIPES Act of 2020 also requires those plans to address the replacement or remediation of pipelines that are known to leak due to their material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past operating and maintenance history (49 U.S.C. 60108(a)(2)(E)). In addition, 49 U.S.C. 60108(a)(2) requires that operators continue updating these plans to meet the requirements of any future regulations related to leak detection and repair that are promulgated under 49 U.S.C. 60102(q).

Advisory Bulletin (ADB–2021–01)

To: Owners and Operators of Gas and Hazardous Liquid Pipeline Facilities.

Subject: Statutory Mandate to Update Inspection and Maintenance Plans to Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas from Pipeline Facilities.

Advisory: The PIPES Act of 2020 contains self-executing provisions requiring pipeline facility operators to update their inspection and maintenance plans to address the elimination of hazardous leaks and minimization of releases of natural gas (including, and not limited to, intentional venting during normal operations) from their systems before December 27, 2021. PHMSA expects that operators will comply with the inspection and maintenance plan revisions required in the PIPES Act of 2020 by revising their operations and

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[1] ‘‘Understanding Global Warming Potentials,’’ U.S. EPA, available at *https://www.epa.gov/ghgemissions/understanding-global-warming-potentials.*

Exhibit TRA-1

maintenance (O&M) plans required under 49 CFR 192.605, 193.2017, and 195.402, to address the elimination of hazardous leaks and minimize releases of natural gas from pipeline facilities. The plans must also address the replacement or remediation of pipelines that are known to leak due to their material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past O&M history. The plans must in be in writing, tailored to the operator's pipeline facilities, supported by technical analysis where necessary, and sufficiently detailed to clearly describe the manner in which each requirement is met. For additional guidance on O&M plans for hazardous liquid and natural gas pipeline facilities, see ''Operations & Maintenance Enforcement Guidance,'' part 192 subparts L and M, page 17, available at *https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/regulatory-compliance/pipeline/enforcement/5776/o-m-enforcement-guidance-part-192-7-21-2017.pdf;* and ''Operations & Maintenance Enforcement Guidance,'' part 195 subpart F, page 18, available at *https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/regulatory-compliance/pipeline/enforcement/5781/o-m-enforcement-guidance-part-195-7-21-2017.pdf.*

Pursuant to 49 U.S.C. 60108(a)(3), as amended by section 114(a) of the PIPES Act of 2020, PHMSA and state authorities with a certification under 49 U.S.C. 60105 will inspect operators' revised O&M plans in calendar year 2022, and such inspections must be completed by December 27, 2022. During these inspections, PHMSA, or the relevant state authority, is required to evaluate whether the plans adequately address items listed in section 114 of the PIPES Act of 2020.

Operators need to consider the following items as they update their plans to comply with section 114 of the PIPES Act of 2020:

- O&M plans must be detailed to address the elimination of hazardous leaks and minimization of releases of natural gas from the operators' pipeline facilities; meaning pipeline operators must update their plans to minimize, among other things, fugitive emissions and vented emissions from pipeline facilities. PHMSA and state inspections, therefore, will evaluate the steps taken to prevent and mitigate both unintentional, fugitive emissions as well as intentional, vented emissions. Fugitive emissions include any unintentional leaks from equipment such as pipelines, flanges, valves, meter sets, or other equipment. Vented emissions include any release of natural gas to the atmosphere due to equipment design or operations and maintenance procedures. Common sources of vented emissions include pneumatic device bleeds, blowdowns, incomplete combustion, or overpressure protection venting (*e.g.,* relief valves).
- O&M plans must address the replacement or remediation of pipelines that are known to leak based on the material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past operating and maintenance history of the pipeline. PHMSA and state inspections will include an evaluation of how the material present in the pipeline system, design of the system, as well as the past O&M history of the system, contribute to the leaks that occur on the system. PHMSA and states will evaluate whether the plans adequately address reducing leaks on operators' pipeline systems due to the aforementioned factors.
- Operators must carry out a current, written O&M plan to address public safety and the protection of the environment. In addition to the new statutory requirement that PHMSA and state inspections consider the extent to which the plans will contribute to the elimination of hazardous leaks and minimizing releases of natural gas from pipeline facilities, PHMSA's inspections will continue to include an evaluation of the extent to which the plans contribute to both public safety and the protection of the environment.

Developing and implementing comprehensive written O&M plans is an effective way to eliminate hazardous leaks and minimize the release of natural gas from pipeline systems. PHMSA anticipates these self-executing statutory mandates will result in enhanced public safety and reductions in pipeline emissions thereby reducing impact on the environment.

Issued in Washington, DC, on June 4, 2021, under authority delegated in 49 CFR 1.97.

Alan K. Mayberry,

Associate Administrator for Pipeline Safety.

[FR Doc. 2021–12155 Filed 6–9–21; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF THE TREASURY

Office of the Comptroller of the Currency

[Docket ID OCC–2021–0010]

Mutual Savings Association Advisory Committee

AGENCY: Department of the Treasury, Office of the Comptroller of the Currency (OCC).

ACTION: Notice of federal advisory committee meeting.

SUMMARY: The OCC announces a meeting of the Mutual Savings Association Advisory Committee (MSAAC).

DATES: A virtual public meeting of the MSAAC will be held on Tuesday, June 29, 2021, beginning at 9:00 a.m. Eastern Daylight Time (EDT).

ADDRESSES: The OCC will host the June 29, 2021 meeting of the MSAAC virtually.

FOR FURTHER INFORMATION CONTACT: Michael R. Brickman, Deputy Comptroller for Thrift Supervision, (202) 649–5420, Office of the Comptroller of the Currency, Washington, DC 20219. You also may access prior MSAAC meeting materials on the MSAAC page of the OCC's website at Mutual Savings Association Advisory Committee.

SUPPLEMENTARY INFORMATION: Under the authority of the Federal Advisory Committee Act, 5 U.S.C. App. 2, and the regulations implementing the Act at 41 CFR part 102–3, the OCC is announcing that the MSAAC will convene a virtual meeting on Tuesday, June 29, 2021. The meeting is open to the public and will begin at 9:00 a.m. EDT. The purpose of the meeting is for the MSAAC to advise the OCC on regulatory or other changes the OCC may make to ensure the health and viability of mutual savings associations. The agenda includes a discussion of current topics of interest to the industry.

Members of the public may submit written statements to the MSAAC. The OCC must receive written statements no later than 5:00 p.m. EDT on Thursday, June 24, 2021. Members of the public may submit written statements to *MSAAC@occ.treas.gov.*

Members of the public who plan to attend the virtual meeting should contact the OCC by 5:00 p.m. EDT on Thursday, June 24, 2021, to inform the OCC of their desire to attend the meeting and to obtain information about participating in the meeting. Members of the public may contact the OCC via email at *MSAAC@OCC.treas.gov* or by

Exhibit TRA-2

safety procedures used for filling, operating, and discharging MATs to determine whether additional safety procedures should be implemented. To this end, we request that persons who use such transportation systems to provide us with information on the effectiveness of the current DOT regulations, consensus standards, and industry best practices. We are also interested in any other procedures utilized to ensure that operations related to the transportation of acetylene on MATs are performed safely.

We would also like to work with shippers, carriers, and facilities that receive shipments of acetylene in MATs to develop and implement a pilot program to test the effectiveness of current or alternative procedures or methods designed to enhance the safety of transportation operations involving acetylene on MATs. As part of this program, we will assist individual companies or facilities to evaluate the effectiveness of their current procedures and to identify additional measures that should be implemented. We welcome suggestions concerning how such a program should be structured and the entities that should participate.

To ensure that our message reaches all stakeholders affected by these risks, we plan to communicate this advisory through our public affairs notification and outreach processes. For additional visibility, we have made this advisory available on the PHMSA homepage at *http://www.phmsa.dot.gov* and the DOT electronic docket site at *http://dms.dot.gov*. In addition, if you are aware of other companies that are involved in the charging, operating, and discharging MATs, please share this advisory notice with them and, if possible, identify them in your correspondence with this agency. We believe a collaborative effort involving an integrated and cooperative approach will help us to address safety risks, reduce incidents, enhance safety, and protect the public.

Issued in Washington, DC on August 30, 2007.

Theodore L. Willke,

Associate Administrator for Hazardous Materials Safety.

[FR Doc. 07–4355 Filed 9–5–07; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA–2004–19856]

Pipeline Safety: Updated Notification of the Susceptibility to Premature Brittle-Like Cracking of Older Plastic Pipe

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION: Notice; Issuance of Advisory Bulletin.

SUMMARY: PHMSA is issuing this updated advisory bulletin to owners and operators of natural gas pipeline distribution systems concerning the susceptibility of older plastic pipe to premature brittle-like cracking. PHMSA previously issued three advisory bulletins on this subject: Two on March 11, 1999 and one on November 26, 2002. This advisory bulletin expands on the information provided in the three prior bulletins by listing two additional pipe materials with poor performance histories relative to brittle-like cracking and by updating pipeline owners and operators on the ongoing voluntary efforts to collect and analyze data on plastic pipe performance. Owners and operators of natural gas pipeline distribution systems are encouraged to review the three previous advisory bulletins in their entirety.

FOR FURTHER INFORMATION CONTACT: Richard Sanders at (405) 954–7214, or by e-mail at *richard.sanders@dot.gov.*

SUPPLEMENTARY INFORMATION:

I. National Transportation Safety Board (NTSB) Investigation

On April 23, 1998, the National Transportation Safety Board (NTSB) issued its Special Investigation Report, *Brittle-Like Cracking in Plastic Pipe for Gas Service,* NTSB/SIR–98/01. The report described the results of the NTSB's special investigation of polyethylene gas service pipe, which addressed three major safety issues: (1) Vulnerability of plastic piping to premature failures due to brittle-like cracking; (2) adequacy of available guidance relating to the installation and protection of plastic piping connections to steel mains; and, (3) effectiveness of performance monitoring of plastic pipeline systems to detect unacceptable performance in piping systems.

(1) *Vulnerability of plastic piping to premature failures due to brittle-like cracking:* The NTSB found that failures in polyethylene pipe in actual service are frequently brittle-like, slit failures, not ductile failures. It concluded the number and similarity of plastic pipe accident and non-accident failures indicate past standards used to rate the long-term strength of plastic pipe may have overrated the strength and resistance to brittle-like cracking for much of the plastic pipe manufactured and used for gas service from the 1960s through the early 1980s. The NTSB also concluded any potential public safety hazards from these failures are likely to be limited to locations where stress intensification exists. The NTSB went on to state that more durable modern plastic piping materials and better strength testing have made the strength ratings of modern plastic piping more reliable.

(2) *Adequacy of available guidance relating to the installation and protection of plastic piping connections to steel mains:* The NTSB concluded that gas pipeline operators had insufficient notification of the brittle-like failure potential for plastic pipe manufactured and used for gas service from the 1960s to the early 1980s. The NTSB also concluded this may not have allowed companies to implement adequate surveillance and replacement programs for older plastic piping. The NTSB explained the Gas Research Institute (GRI) developed a significant amount of data on older plastic pipe but the data was published in codified terms making it insufficient for use by pipeline system operators. The NTSB recommended that manufacturers of resin and pipe, industry trade groups and the Federal government do more to alert pipeline operators to the role played by stress intensification from external forces in the premature failure of plastic pipe due to brittle-like cracking.

(3) *Effectiveness of performance monitoring of plastic pipeline systems as a way of detecting unacceptable performance in piping systems:* The NTSB's analysis noted that Federal regulations require pipeline operators to have an ongoing program to monitor the performance of their pipeline systems. However, the NTSB investigation revealed some gas pipeline operators' performance monitoring programs did not effectively collect and analyze data to determine the extent of possible hazards associated with plastic pipeline systems. The NTSB pointed out, ‘‘such a program must be adequate to detect trends as well as to identify localized problem areas, and it must be able to relate poor performance to specific factors such as plastic piping brands, dates of manufacture (or installation dates), and failure conditions.’’

Exhibit TRA-2

Copies of this report may be obtained by searching the NTSB Web site at *www.ntsb.gov.*

II. Advisory Bulletins Previously Issued by PHMSA

The NTSB made several recommendations to PHMSA and to trade organizations in its 1998 special investigation report. In response, PHMSA issued three advisory bulletins. The first advisory bulletin, ADB–99–01, *Potential Failure Due to Brittle-Like Cracking of Certain Polyethylene Plastic Pipe Manufactured by Century Utility Products Inc,* was published in the **Federal Register** (FR) on March 11, 1999 (64 FR 12211) to advise natural gas pipeline distribution system operators that brittle-like cracking may occur on certain polyethylene pipe manufactured by Century Utility Products, Inc.

The second advisory bulletin, ADB–99–02, *Potential Failures Due to Brittle-Like Cracking of Older Plastic Pipe in Natural Gas Distribution Systems,* was also published in the **Federal Register** on March 11, 1999 (64 FR 12212) to advise natural gas pipeline distribution system operators of the potential for brittle-like cracking of plastic pipes installed between the 1960s and early 1980s.

The third advisory bulletin, ADB–02–07, *Notification of the Susceptibility To Premature Brittle-Like Cracking of Older Plastic Pipe,* was published in the **Federal Register** on November 26, 2002 (67 FR 70806) to reiterate to natural gas pipeline distribution system operators the susceptibility of older plastic pipe to premature brittle-like cracking. The older polyethylene pipe materials specifically identified in ADB–02–07 included, but were not limited to:

- Century Utility Products, Inc. products;
- Low-ductile inner wall ''Aldyl A'' piping manufactured by DuPont Company before 1973; and
- Polyethylene gas pipe designated PE 3306.

This third advisory bulletin also listed several environmental, installation and service conditions in which plastic piping is used that could lead to premature brittle-like cracking failure. PHMSA also described six recommended practices for polyethylene gas pipeline system operators to aid them with identifying and managing brittle-like cracking problems.

III. Plastic Pipe Studies

Beginning January 25, 2001, the American Gas Association (AGA) began to collect data on in-service plastic piping material failures with the objective of identifying trends in the performance of these materials. The resulting leak survey data, collected from 2001 to present, on the county's natural gas distribution systems includes both actual failure information and negative reports (reports of no leads) submitted voluntarily by participating pipeline operating companies.

The AGA, PHMSA, and other industry and state organizations continue to collect and analyze the data. Unfortunately, the data cannot be correlated with the quantities of each plastic pipe material that may be in service across the United States. Therefore, the data does not assess the failure rates of individual plastic pipe materials on a linear basis (i.e. per foot, per mile, etc.). However, the failure data reinforces what is historically known about certain older plastic piping and components. The data also indicates the susceptibility of additional specific materials to brittle-like cracking.

IV. Advisory Bulletin ADB–07–01

To: Owners and Operators of Natural Gas Pipeline Distribution Systems.

Subject: Updated Notification of the Susceptibility of Older Plastic Pipes to Premature Brittle-Like Cracking.

Advisory: All owners and operators of natural gas distribution systems who have installed and operate plastic piping are reminded of the phenomenon of brittle-like cracking. Brittle-like cracking refers to crack initiation in the pipe wall not immediately resulting in a full break followed by stable crack growth at stress levels much lower than the stress required for yielding. This results in very tight, slit-like, openings and gas leaks. Although significant cracking may occur at points of stress concentration and near improperly designed or installed fittings, small brittle-like cracks may be difficult to detect until a significant amount of gas leaks out of the pipe, and potentially migrates into an enclosed space such as a basement. Premature brittle-like cracking requires relatively high localized stress intensification that may result from geometrical discontinuities, excessive bending, improper installation of fittings, dents and/or gouges. Because this failure mode exhibits no evidence of gross yielding at the failure location, the term brittle-like cracking is used. This phenomenon is different from brittle fracture, in which the pipe failure causes fragmentation of the pipe.

All owners and operators of natural gas distribution systems are future advised to review the three earlier advisory bulletins on this issue. In addition to being available in the **Federal Register**, these advisory bulletins are available in the docket, and on PHMSA's Web site at *http://phmsa.dot.gov/* under Pipeline Safety Regulations.

In the first advisory bulletin, ADB–99–01, published on March 11, 1999 (64 FR 12211), PHMSA advises natural gas distribution system operators of the potential for poor resistance to brittle-like cracking of certain polyethylene pipe manufactured by Century Utility Products, Inc. In the second advisory bulletin, ADB–99–02, published on March 11, 1999 (64 FR 12212), PHMSA advises natural gas distribution system operators of the potential for brittle-like cracking of plastic pipes installed between the 1960s and early 1980s.

In the third advisory bulletin, ADB–02–07, published on November 26, 2002 (67 FR 70806), PHMSA reiterates to pipeline operators the susceptibility of some older plastic pipe to premature brittle-like cracking which could substantially reduce the service life of natural gas distribution systems and to explain the mission of the Plastic Pipe Database Committee (PPDC) ''to develop and maintain a voluntary data collection process that supports the analysis of the frequency and causes of in-service plastic piping material failures.'' The advisory bulletin also lists several environmental, installation and service conditions under which plastic piping is used which is used which could lead to premature brittle-like cracking failure. PHMSA also describes six recommended practices for polyethylene gas pipeline system operators to aid them with identifying and managing brittle-like cracking problems.

Lastly, the susceptibility of some polyethylene pipes to brittle-like cracking is dependent on the resin, pipe processing, and service conditions. As noted in ADB–02–07, these older polyethylene pipe materials include, but are not limited to:

- Century Utility Products, Inc. products;
- Low-ductile inner wall ''Aldyl A'' piping manufactured by DuPont Company before 1973; and
- Polyethylene gas pipe designated PE 3306.

The data now supports adding the following pipe materials to this list:

- Delrin insert tap tees; and,
- Plexco service tee Celcon (polyacetal) caps.

Authority: 49 U.S.C. chapter 601 and 49 CFR 1.53.

Exhibit TRA-2

Issued in Washington, DC, on August 28, 2007.

Jeffrey D. Wiese,

Associate Administrator for Pipeline Safety.

[FR Doc. 07–4309 Filed 9–5–07; 8:45 am]

BILLING CODE 4910–60–M

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA–2007–28993]

Pipeline Safety: Adequacy of Internal Corrosion Regulations for Hazardous Liquid Pipelines

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), U.S. Department of Transportation (DOT).

ACTION: Notice of availability of materials; request for comments.

SUMMARY: This notice announces the availability of materials, including a briefing paper prepared for PHMSA's Technical Hazardous Liquid Pipeline Safety Standards Committee (THLPSSC) and data on risks posed by internal corrosion on hazardous liquid pipelines. PHMSA is preparing a report to Congress on the adequacy of the internal corrosion regulations for hazardous liquid pipelines. Participants at a meeting of the THLPSSC discussed issues involved in examining the adequacy of the regulations and requested additional data. PHMSA requests public comment on these matters.

DATES: Submit comments by October 9, 2007.

ADDRESSES: Comments should reference Docket No. PHMSA–2007–28993 and may be submitted in the following ways:

- *E-Gov Web site: http://www.regulations.gov.* This Web site allows the public to enter comments on any **Federal Register** notice issued by any agency. Follow the instructions for submitting comments.
- *Fax:* 1–202–493–2251.
- *Mail:* Docket Management System: U.S. Department of Transportation, Docket Operations, M–30, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001.
- *Hand Delivery:* DOT Docket Management System, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001 between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Instructions: Identify the docket number, PHMSA–2007–28993, at the beginning of your comments. If you submit your comments by mail, submit two copies. To receive confirmation that PHMSA received your comments, include a self-addressed stamped postcard. Internet users may submit comments at *http://www.regulations.gov.*

Note: Comments are posted without changes or edits to *http://www.regulations.gov*, including any personal information provided. There is a privacy statement published on *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Barbara Betsock at (202) 366–4361, or by e-mail at *barbara.betsock@dot.gov.*

SUPPLEMENTARY INFORMATION: The Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006 directs PHMSA to review the internal corrosion regulations in subpart H of 49 CFR part 195 to determine if they are adequate to ensure adequate protection of the public and environment and to report to Congress on the results of the review. As an initial step in the review, PHMSA consulted the THLPSSC at its meeting on July 24, 2007. The briefing paper prepared for the committee members contains preliminary data on risk history as well as questions relating to the internal corrosion regulations. This briefing paper is posted on PHMSA's pipeline Web site (*http://ops.dot.gov*) and has been placed in the docket.

At the meeting, PHMSA officials committed to gathering additional data responding to questions posed by the committee members. PHMSA has updated the data and included data responsive to the committee members. This data is also posted on the pipeline Web site and contained in the docket.

PHMSA requests comments on the adequacy of the internal corrosion regulations and answers to the questions posed in the briefing paper. PHMSA will use these comments in its review of the internal corrosion regulations.

Authority: 49 U.S.C. 60102, 60115, 60117: Sec. 22, Pub. L. 109–468, 120 Stat. 3499.

Issued in Washington, DC on August 27, 2007.

Jeffrey D. Wiese,

Associate Administrator for Pipeline Safety.

[FR Doc. E7–17538 Filed 9–5–07; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0675]

Proposed Information Collection Activity: Proposed Collection; Comment Request

AGENCY: Center for Veterans Enterprise, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: The Center for Veterans Enterprise (CVE), Department of Veterans Affairs (VA), is announcing an opportunity for public comment on the proposed collection of certain information by the agency. Under the Paperwork Reduction Act (PRA) of 1995, Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of a currently approved collection, and allow 60 days for public comment in response to the notice. This notice solicits comments for information needed to identify veteran-owned businesses.

DATES: Written comments and recommendations on the proposed collection of information should be received on or before November 5, 2007.

ADDRESSES: Submit written comments on the collection of information through *http://www.Regulations.gov;* or Gail Wegner (00VE), Department of Veterans Affairs, 810 Vermont Avenue, NW., Washington, DC 20420 or e-mail: *gail.wegner@va.gov.* Please refer to "OMB Control No. 2900–0675" in any correspondence. During the comment period, comments may be viewed online through the Federal Docket Management System (FDMS) at *http://www.Regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Gail Wegner at (202) 303–3296 or FAX (202) 254–0238.

SUPPLEMENTARY INFORMATION: Under the PRA of 1995 (Pub. L. 104–13; 44 U.S.C. 3501–3521), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. This request for comment is being made pursuant to section 3506(c)(2)(A) of the PRA.

With respect to the following collection of information, CVE invites comments on: (1) Whether the proposed collection of information is necessary for the proper performance of CVE's functions, including whether the information will have practical utility; (2) the accuracy of CVE's estimate of the burden of the proposed collection of

BEFORE THE PUBLIC SERVICE COMMISSION

COMMONWEALTH OF KENTUCKY

APPLICATION OF ATMOS ENERGY	**)**	
	)	
CORPORATION FOR AN ADJUSTMENT	**)**	**Case No. 2021-00214**
	)	
OF RATES AND TARIFF MODIFICATIONS	**)**	

DIRECT TESTIMONY OF DYLAN W. D'ASCENDIS

RATE OF RETURN

TABLE OF CONTENTS

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Dylan W. D'Ascendis. My business address is 3000 Atrium Way, Suite 241, Mount Laurel, NJ 08054.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a Partner at ScottMadden, Inc.

Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND.

A. I have offered expert testimony on behalf of investor-owned utilities before over 25 state regulatory commissions in the United States, the Federal Energy Regulatory Commission, the Alberta Utility Commission, and one American Arbitration Association panel on issues including, but not limited to, common equity cost rate, rate of return, valuation, capital structure, class cost of service, and rate design.

On behalf of the American Gas Association ("AGA"), I calculate the AGA Gas Index, which serves as the benchmark against which the performance of the American Gas Index Fund ("AGIF") is measured on a monthly basis. The AGA Gas Index and AGIF are a market capitalization weighted index and mutual fund, respectively, comprised of the common stocks of the publicly traded corporate members of the AGA.

I am a member of the Society of Utility and Regulatory Financial Analysts ("SURFA"). In 2011, I was awarded the professional designation "Certified Rate of Return Analyst" by SURFA, which is based on education, experience, and the successful completion of a comprehensive written examination.

I am also a member of the National Association of Certified Valuation Analysts ("NACVA") and was awarded the professional designation "Certified Valuation Analyst" by the NACVA in 2015.

I am a graduate of the University of Pennsylvania, where I received a Bachelor of Arts degree in Economic History. I have also received a Master of Business Administration with high honors and concentrations in Finance and International Business from Rutgers University.

The details of my educational background and expert witness appearances are shown in Appendix A.

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

A. The purpose of my testimony is to present evidence and provide a recommendation regarding Atmos Energy Corporation's ("Atmos Energy" or the "Company") return on common equity ("ROE") for its natural gas distribution operations in Kentucky.

Q. HAVE YOU PREPARED AN EXHIBIT IN SUPPORT OF YOUR RECOMMENDATION?

A. Yes. I have prepared Exhibit No. DWD-1, consisting of Schedules DWD-1 through DWD-8, which were prepared by me or under my direction.

Q. WHAT IS YOUR RECOMMENDED ROE FOR ATMOS ENERGY?

A. I recommend that the Commission authorize Atmos Energy the opportunity to earn an ROE of 10.35% on its rate base. The ratemaking capital structure and cost of long-term debt is sponsored by Company Witness Christian. The overall rate of return is summarized on page 1 of Schedule DWD-1 and in Table 1 below:

Table 1: Summary of Recommended Weighted Average Cost of Capital

Type of Capital	Ratios	Cost Rate	Weighted Cost Rate
Long-Term Debt	42.77%	4.00%	1.71%
Short-Term Debt	0.18%	25.17%	0.05%
Common Equity	57.05%	10.35%	5.90%
Total	100.00%		7.66%

II. SUMMARY OF TESTIMONY

Q. PLEASE SUMMARIZE YOUR RECOMMENDED COMMON EQUITY COST RATE.

A. My recommended common equity cost rate of 10.35% is summarized on page 2 of Schedule DWD-1. I have assessed the market-based common equity cost rates of companies of relatively similar, but not necessarily identical, risk to Atmos Energy. Using companies of relatively comparable risk as proxies is consistent with the principles of fair rate of return established in the *Hope*[1] and *Bluefield*[2] decisions. No proxy group can be identical in risk to any single company. Consequently, there must be an evaluation of relative risk between the company and the proxy group to determine if it is appropriate to adjust the proxy group's indicated rate of return.

My recommendation results from applying several cost of common equity models, specifically the Discounted Cash Flow ("DCF") model, the Risk Premium Model ("RPM"), and the Capital Asset Pricing Model ("CAPM"), to the market data of a proxy group of seven natural gas distribution utilities ("Utility Proxy Group") whose selection criteria will be discussed below. In addition, I applied the DCF model, RPM, and CAPM to a proxy group of 48 domestic, non-price regulated

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[1] *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

[2] *Bluefield Water Works Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679 (1922).

companies comparable in total risk to the Utility Proxy Group ("Non-Price Regulated Proxy Group"). The results derived from each are as follows:

Table 2: Summary of Common Equity Cost Rates

Discounted Cash Flow Model	9.44%
Risk Premium Model	10.96%
Capital Asset Pricing Model	11.75%
Cost of Equity Models Applied to Comparable Risk, Non-Price Regulated Companies	12.42%
Indicated Range	9.44% - 12.42%
Size Adjustment	0.20%
Credit Risk Adjustment	-0.10%
Flotation Cost Adjustment	0.04%
Recommended Range	9.58% - 12.66%
Recommended Cost of Common Equity	10.35%

The indicated range of common equity cost rates applicable to the Utility Proxy Group is between 9.44% and 12.42% before any Company-specific adjustments. As ROE models are based on market data, the indicated results of the models would reflect current and expected capital markets, including the impacts of COVID-19. I then adjusted the indicated range by 0.20% and negative 0.10% to reflect the Company's smaller relative size and lower credit risk, as compared to the Utility Proxy Group companies, and by 0.04% for flotation costs.[3] These adjustments resulted in a Company-specific indicated range of common equity cost rates between 9.58% and 12.66%.

The wide range of model results may reflect increased uncertainty related to the COVID-19 pandemic and unknown timeframe for when economic conditions

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[3] *See* Section VII for a detailed discussion of my cost of common equity adjustments.

will normalize as vaccinations ramp up and the public health crises subsides. Because of this uncertainty, I recommend an ROE for the Company toward the lower end of my Company-specific range, specifically 10.35%.

Q. HOW IS THE REMAINDER OF YOUR DIRECT TESTIMONY ORGANIZED?

A. The remainder of my Direct Testimony is organized as follows:

- Section III – Provides a summary of financial theory and regulatory principles pertinent to the development of the cost of common equity;
- Section IV – Explains my selection of the Utility Proxy Group used to develop my Cost of Common Equity analytical results;
- Section V – Describes the analyses on which my Cost of Common Equity recommendation is based;
- Section VI – Summarizes my common equity cost rate before adjustments to reflect Company-specific factors;
- Section VII – Explains my adjustments to my common equity cost rate to reflect Company-specific factors; and
- Section VIII – Presents my conclusions.

III. GENERAL PRINCIPLES

Q. WHAT GENERAL PRINCIPLES HAVE YOU CONSIDERED IN ARRIVING AT YOUR RECOMMENDED COMMON EQUITY COST RATE OF 10.35%?

A. In unregulated industries, marketplace competition is the principal determinant of the price of products or services. For regulated public utilities, regulation must act as a substitute for marketplace competition. Assuring that the utility can fulfill its obligations to the public, while providing safe and reliable service at all times, requires a level of earnings sufficient to maintain the integrity of presently invested capital. Sufficient earnings also permit the attraction of needed new capital at a reasonable cost, for which the utility must compete with other firms of comparable risk, consistent with the fair rate of return standards established by the U.S. Supreme Court in the previously cited *Hope* and *Bluefield* cases.

The U.S. Supreme Court affirmed the fair rate of return standards in *Hope*, when it stated:

> The rate-making process under the Act, *i.e.,* the fixing of 'just and reasonable' rates, involves a balancing of the investor and the consumer interests. Thus we stated in the Natural Gas Pipeline Co. case that 'regulation does not insure that the business shall produce net revenues.' 315 U.S. at page 590, 62 S.Ct. at page 745. But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. Cf. Chicago & Grand Trunk R. Co. v. Wellman, 143 U.S. 339, 345, 346 12 S.Ct. 400,402. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[4]

Consistent with the findings in *Hope*, the Commission's decision in this proceeding should provide the Company with the opportunity to earn a return that is: (1) adequate to attract capital at reasonable cost and terms; (2) sufficient to

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[4] *Hope*, 320 U.S. 591 (1944), at 603.

ensure their financial integrity; and (3) commensurate with returns on investments in enterprises having corresponding risks.

Also, the required return for a regulated public utility is established on a stand-alone basis, i.e., for the utility operating company at issue in a rate case. When funding is provided by a corporate entity to an operating division or business unit within the entity, the allowed return still must be sufficient to provide an incentive to allocate equity capital to the business unit rather than other internal or external investment opportunities. That is, the regulated operating division must compete for capital with all the operating divisions within the corporate entity, and with other, similarly situated companies. In that regard, investors value corporate entities on a sum-of-the-parts basis and expect each division within the parent company to provide an appropriate risk-adjusted return.

It therefore is important that the authorized ROE reflects the risks and prospects of the utility's operations and supports the utility's financial integrity from a stand-alone perspective as measured by their combined business and financial risks. Consequently, the ROE authorized in this proceeding should be sufficient to support the operational (*i.e.,* business risk) and financing (*i.e.,* financial risk) of the Company's Kentucky utility operations on a stand-alone basis.

Q. WITHIN THAT BROAD FRAMEWORK, HOW IS THE COST OF CAPITAL ESTIMATED IN REGULATORY PROCEEDINGS?

A. Regulated utilities primarily use common stock and long-term debt to finance their permanent property, plant, and equipment (*i.e.*, rate base). The fair rate of return for a regulated utility is based on its weighted average cost of capital, in which, as noted earlier, the costs of the individual sources of capital are weighted by their respective book values.

The cost of capital is the return investors require to make an investment in a firm. Investors will provide funds to a firm only if the return that they *expect* is equal to, or greater than, the return that they *require* to accept the risk of providing funds to the firm.

The cost of capital (that is, the combination of the costs of debt and equity) is based on the economic principle of "opportunity costs." Investing in any asset (whether debt or equity securities) represents a forgone opportunity to invest in alternative assets. For any investment to be sensible, its expected return must be at least equal to the return expected on alternative, comparable risk investment opportunities. Because investments with like risks should offer similar returns, the opportunity cost of an investment should equal the return available on an investment of comparable risk.

Whereas the cost of debt is contractually defined and can be directly observed as the interest rate or yield on debt securities, the cost of common equity must be estimated based on market data and various financial models. Because the cost of common equity is premised on opportunity costs, the models used to determine it are typically applied to a group of "comparable" or "proxy" companies.

In the end, the estimated cost of capital should reflect the return that investors require in light of the subject company's business and financial risks, and the returns available on comparable investments.

Q. IS THE AUTHORIZED RETURN SET IN REGULATORY PROCEEDINGS GUARANTEED?

A. No, it is not. Consistent with the *Hope* and *Bluefield* standards, the rate-setting process should provide the utility a reasonable opportunity to recover its return of, and return on, its prudently incurred investments, but it does not guarantee that return. While a utility may have control over some factors that affect the ability to earn its authorized return (*e.g.*, management performance, operating and maintenance expenses, etc.), there are several factors beyond a utility's control that affect its ability to earn its authorized return. Those may include factors such as weather, the economy, and the prevalence and magnitude of regulatory lag.

A. <u>Business Risk</u>

Q. PLEASE DEFINE BUSINESS RISK AND EXPLAIN WHY IT IS IMPORTANT FOR DETERMINING A FAIR RATE OF RETURN.

A. The investor-required return on common equity reflects investors' assessment of the total investment risk of the subject firm. Total investment risk is often discussed in the context of business and financial risk.

Business risk reflects the uncertainty associated with owning a company's common stock without the company's use of debt and/or preferred stock financing. One way of considering the distinction between business and financial risk is to view the former as the uncertainty of the expected earned return on common equity, assuming the firm is financed with no debt.

Examples of business risks <u>generally</u> faced by utilities include, but are not limited to, the regulatory environment, mandatory environmental compliance requirements, customer mix and concentration of customers, service territory economic growth, market demand, risks and uncertainties of supply, operations, capital intensity, size, the degree of operating leverage, and the like, all of which have a direct bearing on earnings. Although analysts, including rating agencies, may categorize business risks individually, as a practical matter, such risks are interrelated and not wholly distinct from one another. Therefore, it is difficult to specifically and numerically quantify the effect of any individual risk on investors' required return, *i.e.*, the cost of capital. For determining an appropriate return on common equity, the relevant issue is where investors see the subject company as falling within a spectrum of risk. To the extent investors view a company as being exposed to high risk, the required return will increase, and vice versa.

For regulated utilities, business risks are both long-term and near-term in nature. Whereas near-term business risks are reflected in year-to-year variability in earnings and cash flow brought about by economic or regulatory factors, long-term business risks reflect the prospect of an impaired ability of investors to obtain both a fair rate of return on, and return of, their capital. Moreover, because utilities accept the obligation to provide safe, adequate and reliable service at all times (in exchange for a reasonable opportunity to earn a fair return on their investment), they generally do not have the option to delay, defer, or reject capital investments. Because those investments are capital-intensive, utilities generally do not have the option to avoid raising external funds during periods of capital market distress, if necessary.

Because utilities invest in long-lived assets, long-term business risks are of paramount concern to equity investors. That is, the risk of not recovering the return on their investment extends far into the future. The timing and nature of events that may lead to losses, however, also are uncertain and, consequently, those risks and their implications for the required return on equity tend to be difficult to quantify. Regulatory commissions (like investors who commit their capital) must review a variety of quantitative and qualitative data and apply their reasoned judgment to determine how long-term risks weigh in their assessment of the market-required return on common equity.

B. Financial Risk

Q. PLEASE DEFINE FINANCIAL RISK AND EXPLAIN WHY IT IS IMPORTANT IN DETERMINING A FAIR RATE OF RETURN.

A. Financial risk is the additional risk created by the introduction of debt and preferred stock into the capital structure. The higher the proportion of debt and preferred stock in the capital structure, the higher the financial risk to common equity owners (*i.e.,* failure to receive dividends due to default or other covenants). Therefore, consistent with the basic financial principle of risk and return, common equity investors demand higher returns as compensation for bearing higher financial risk.

Q. CAN BOND AND CREDIT RATINGS BE A PROXY FOR A FIRM'S COMBINED BUSINESS AND FINANCIAL RISKS TO EQUITY OWNERS (*I.E.*, INVESTMENT RISK)?

A. Yes, similar bond ratings/issuer credit ratings reflect, and are representative of, similar combined business and financial risks (*i.e.*, total risk) faced by bond investors.[5] Although specific business or financial risks may differ between

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[5] Risk distinctions within S&P's bond rating categories are recognized by a plus or minus, e.g., within the A category, an S&P rating can by at A+, A, or A-. Similarly, risk distinction for

companies, the same bond/credit rating indicates that the combined risks are roughly similar from a debtholder perspective. The caveat is that these debtholder risk measures do not translate directly to risks for common equity.

Q. DO RATING AGENCIES ACCOUNT FOR COMPANY SIZE IN THEIR BOND RATINGS?

A. No. Neither Standard & Poor's ("S&P") nor Moody's have minimum company size requirements for any given rating level. This means, all else equal, a relative size analysis must be conducted for equity investments in companies with similar bond ratings.

IV. ATMOS ENERGY'S KENTUCKY OPERATIONS AND THE UTILITY PROXY GROUP

Q. ARE YOU FAMILIAR WITH ATMOS ENERGY'S OPERATIONS?

A. Yes. Atmos Energy's Kentucky operations serve approximately 183,000 customers.[6] Atmos Energy's Kentucky gas operations are not publicly-traded as they comprise an operating division of Atmos Energy Corporation ("ATO" or the "Company"), which operates in eight states[7] and serves approximately 3.3 million gas[8] and is publicly-traded under symbol ATO.

Q. PLEASE EXPLAIN HOW YOU CHOSE THE COMPANIES IN THE UTILITY PROXY GROUP.

A. The companies selected for the Utility Proxy Group met the following criteria:

Moody's ratings are distinguished by numerical rating gradations, e.g., within the A category, a Moody's rating can be A1, A2 and A3.

[6] Atmos Energy Corporation, 2020 SEC Form 10-K, at 4.

[7] *Ibid.,* In addition to Kentucky, ATO also serves customers in Texas, Louisiana, Mississippi, Virginia, Colorado, Kansas, and Tennessee.

[8] *Ibid.*

(i) They were included in the Natural Gas Utility Group of *Value Line's Standard Edition* (*Value Line*) (May 28, 2021);

(ii) They have 60% or greater of fiscal year 2020 total operating income derived from, and 60% or greater of fiscal year 2020 total assets attributable to, regulated gas distribution operations;

(iii) At the time of preparation of this testimony, they had not publicly announced that they were involved in any major merger or acquisition activity (*i.e.*, one publicly-traded utility merging with or acquiring another);

(iv) They have not cut or omitted their common dividends during the five years ended 2020 or through the time of preparation of this testimony;

(v) They have *Value Line* and Bloomberg Professional Services ("Bloomberg") adjusted betas;

(vi) They have positive *Value Line* five-year dividends per share ("DPS") growth rate projections; and

(vii) They have *Value Line*, Zacks, Yahoo! Finance, or Bloomberg consensus five-year earnings per share ("EPS") growth rate projections.

The following seven companies met these criteria: Atmos Energy Corporation, New Jersey Resources Corp., Northwest Natural Holding Company, One Gas, Inc., South Jersey Industries, Inc., Southwest Gas Holdings, Inc., and Spire, Inc.

Q. WHY IS IT NECESSARY TO DEVELOP A PROXY GROUP WHEN ESTIMATING THE ROE FOR THE COMPANY?

A. Because the Company is not publicly traded and does not have publicly traded equity securities, it is necessary to develop groups of publicly traded, comparable companies to serve as "proxies" for the Company. In addition to the analytical necessity of doing so, the use of proxy companies is consistent with the *Hope* and *Bluefield* comparable risk standards, as discussed above. I have selected two proxy groups that, in my view, are fundamentally risk-comparable to the Company: a Utility Proxy Group and a Non-Price Regulated Proxy Group, which is comparable in total risk to the Utility Proxy Group.[9]

Even when proxy groups are carefully selected, it is common for analytical results to vary from company to company. Despite the care taken to ensure comparability, because no two companies are identical, market expectations regarding future risks and prospects will vary within the proxy group. It therefore is common for analytical results to reflect a seemingly wide range, even for a group of similarly situated companies. At issue is how to estimate the ROE from within that range. That determination will be best informed by employing a variety of sound analyses that necessarily must consider the sort of quantitative and qualitative information discussed throughout my Direct Testimony. Additionally, a relative risk analysis between the Company and the Utility Proxy Group must be made to determine whether or not explicit Company-specific adjustments need to be made to the Utility Proxy Group indicated results.

V. <u>COMMON EQUITY COST RATE MODELS</u>

Q. IS IT IMPORTANT THAT COST OF COMMON EQUITY MODELS BE MARKET BASED?

A. Yes. A public utility must compete for equity in capital markets along with all other companies of comparable risk, which includes non-utilities. The cost of common equity is thus determined based on equity market expectations for the returns of those comparable risk companies. If an individual investor is choosing to invest

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[9] The development of the Non-Price Regulated Proxy Group is explained in more detail in Section V.

their capital among companies of comparable risk, they will choose a company providing a higher return over a company providing a lower return.

Q. ARE YOUR COST OF COMMON EQUITY MODELS MARKET BASED?

A. Yes. The DCF model uses market prices in developing the model's dividend yield component. The RPM uses bond ratings and expected bond yields that reflect the market's assessment of bond/credit risk. In addition, beta coefficients (β), which reflect the market/systematic risk component of equity risk premium, are derived from regression analyses of market prices. The Predictive Risk Premium Model ("PRPM") uses monthly market returns in addition to expectations of the risk-free rate. The CAPM is market based for many of the same reasons that the RPM is market based (*i.e.*, the use of expected bond yields and betas). Selection criteria for comparable risk non-price regulated companies are based on regression analyses of market prices and reflect the market's assessment of total risk.

Q. WHAT ANALYTICAL APPROACHES DID YOU USE TO DETERMINE THE COMPANY'S ROE?

A. As discussed earlier, I have relied on the DCF model, the RPM, and the CAPM, which I apply to the Utility Proxy Group described above. I also applied these same models to a Non-Price Regulated Proxy Group described later in this section.

I rely on these models because reasonable investors use a variety of tools and do not rely exclusively on a single source of information or single model. Moreover, the models on which I rely focus on different aspects of return requirements, and provide different insights to investors' views of risk and return. The DCF model, for example, estimates the investor-required return assuming a constant expected dividend yield and growth rate in perpetuity, while Risk Premium-based methods (*i.e.,* the RPM and CAPM approaches) provide the ability to reflect investors' views of risk, future market returns, and the relationship between interest rates and the cost of common equity. Just as the use of market data for the Utility Proxy Group adds the reliability necessary to inform expert judgment in arriving at a recommended common equity cost rate, the use of multiple generally accepted common equity cost rate models also adds reliability and accuracy when arriving at a recommended common equity cost rate.

A. Discounted Cash Flow Model

Q. WHAT IS THE THEORETICAL BASIS OF THE DCF MODEL?

A. The theory underlying the DCF model is that the present value of an expected future stream of net cash flows during the investment holding period can be determined by discounting those cash flows at the cost of capital, or the investors' capitalization rate. DCF theory indicates that an investor buys a stock for an expected total return rate, which is derived from the cash flows received from dividends and market price appreciation. Mathematically, the dividend yield on market price plus a growth rate equals the capitalization rate; *i.e.*, the total common equity return rate expected by investors as shown below:

$$K_e = (D_0\,(1+g))/P + g$$

where:

K_e = the required Return on Common Equity;
D_0 = the annualized Dividend Per Share;
P = the current stock price; and
g = the growth rate.

Q. WHICH VERSION OF THE DCF MODEL DID YOU USE?

A. I used the single-stage constant growth DCF model in my analyses.

Q. PLEASE DESCRIBE THE DIVIDEND YIELD YOU USED IN APPLYING THE CONSTANT GROWTH DCF MODEL.

A. The unadjusted dividend yields are based on the proxy companies' dividends as of May 28, 2021, divided by the average closing market price for the 60 trading days ended May 28, 2021.[10]

Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO THE DIVIDEND YIELD.

A. Because dividends are paid periodically (*e.g.* quarterly), as opposed to continuously (daily), an adjustment must be made to the dividend yield. This is often referred to as the discrete, or the Gordon Periodic, version of the DCF model.

DCF theory calls for using the full growth rate, or D_1, in calculating the model's dividend yield component. Since the companies in the Utility Proxy Group increase their quarterly dividends at various times during the year, a reasonable assumption is to reflect one-half the annual dividend growth rate in the dividend yield component, or $D_{1/2}$. Because the dividend should be representative of the next 12-month period, this adjustment is a conservative approach that does not overstate the dividend yield. Therefore, the actual average dividend yields in Column 1, page 1 of Schedule DWD-2 have been adjusted upward to reflect one-half the average projected growth rate shown in Column 6.

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[10] *See*, column 1, page 1 of Schedule DWD-2.

Q. PLEASE EXPLAIN THE BASIS FOR THE GROWTH RATES YOU APPLY TO THE UTILITY PROXY GROUP IN YOUR CONSTANT GROWTH DCF MODEL.

A. Investors are likely to rely on widely available financial information services, such as *Value Line*, Zacks, Yahoo! Finance, and Bloomberg. Investors realize that analysts have significant insight into the dynamics of the industries and individual companies they analyze, as well as companies' ability to effectively manage the effects of changing laws and regulations, and ever-changing economic and market conditions. For these reasons, I used analysts' five-year forecasts of EPS growth in my DCF analysis.

Over the long run, there can be no growth in DPS without growth in EPS. Security analysts' earnings expectations have a more significant influence on market prices than dividend expectations. Thus, using earnings growth rates in a DCF analysis provides a better match between investors' market price appreciation expectations and the growth rate component of the DCF.

Q. PLEASE SUMMARIZE THE CONSTANT GROWTH DCF MODEL RESULTS.

A. As shown on page 1 of Schedule DWD-2, for the Utility Proxy Group, the mean result of applying the single-stage DCF model is 9.57%, the median result is 9.30%, and the average of the two is 9.44%. In arriving at a conclusion for the constant growth DCF-indicated common equity cost rate for the Utility Proxy Group, I relied on an average of the mean and the median results of the DCF. This approach considers all the proxy utilities' results, while mitigating the high and low outliers of those individual results.

B. The Risk Premium Model

Q. PLEASE DESCRIBE THE THEORETICAL BASIS OF THE RPM.

A. The RPM is based on the fundamental financial principle of risk and return; namely, that investors require greater returns for bearing greater risk. The RPM recognizes that common equity capital has greater investment risk than debt capital, as common equity shareholders are behind debt holders in any claim on a company's assets and earnings. As a result, investors require higher returns from common stocks than from bonds to compensate them for bearing the additional risk.

While it is possible to directly observe bond returns and yields, investors' required common equity returns cannot be directly determined or observed. According to RPM theory, one can estimate a common equity risk premium over bonds (either historically or prospectively) and use that premium to derive a cost rate of common equity. The cost of common equity equals the expected cost rate for long-term debt capital, plus a risk premium over that cost rate, to compensate common shareholders for the added risk of being unsecured and last-in-line for any claim on the corporation's assets and earnings upon liquidation.

Q. PLEASE EXPLAIN HOW YOU DERIVED YOUR INDICATED COST OF COMMON EQUITY BASED ON THE RPM.

A. To derive my indicated cost of common equity under the RPM, I used two risk premium methods. The first method was the PRPM and the second method was a risk premium model using a total market approach. The PRPM estimates the risk-return relationship directly, while the total market approach indirectly derives a risk premium by using known metrics as a proxy for risk.

1. The Predictive Risk Premium Model

Q. PLEASE EXPLAIN THE PRPM.

A. The PRPM, published in the *Journal of Regulatory Economics,*[11] was developed from the work of Robert F. Engle, who shared the Nobel Prize in Economics in 2003 "for methods of analyzing economic time series with time-varying volatility ("ARCH")".[12] Engle found that volatility changes over time and is related from one period to the next, especially in financial markets. Engle discovered that volatility of prices and returns cluster over time and is therefore highly predictable and can be used to predict future levels of risk and risk premiums.

The PRPM estimates the risk-return relationship directly, as the predicted equity risk premium is generated by predicting volatility or risk. The PRPM is not based on an estimate of investor behavior, but rather on an evaluation of the results of that behavior (*i.e.*, the variance of historical equity risk premiums).

The inputs to the model are the historical returns on the common shares of each Utility Proxy Group company minus the historical monthly yield on long-term U.S. Treasury securities through May 2021. Using a generalized form of ARCH, known as GARCH, I calculated each Utility Proxy Group company's projected equity risk premium using Eviews© statistical software. When the GARCH model is applied to the historical return data, it produces a predicted GARCH variance

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[11] Autoregressive conditional heteroscedasticity. See "A New Approach for Estimating the Equity Risk Premium for Public Utilities", Pauline M. Ahern, Frank J. Hanley and Richard A. Michelfelder, Ph.D. The Journal of Regulatory Economics (December 2011), 40:261-278.

[12] www.nobelprize.org.

series[13] and a GARCH coefficient[14]. Multiplying the predicted monthly variance by the GARCH coefficient and then annualizing it[15] produces the predicted annual equity risk premium. I then added the forecasted 30-year U.S. Treasury bond yield of 2.88%[16] to each company's PRPM-derived equity risk premium to arrive at an indicated cost of common equity. The 30-year U.S. Treasury bond yield is a consensus forecast derived from Blue Chip Financial Forecasts (*Blue Chip)*.[17] The mean PRPM indicated common equity cost rate for the Utility Proxy Group is 11.67%, the median is 11.19%, and the average of the two is 11.43%. Consistent with my reliance on the average of the median and mean results of the DCF models, I relied on the average of the mean and median results of the Utility Proxy Group PRPM to calculate a cost of common equity rate of 11.43%.

Q. PLEASE DESCRIBE YOUR SELECTION OF A RISK-FREE RATE OF RETURN.

A. As shown in Schedules DWD-3 and 4, the risk-free rate adopted for applications of the RPM and CAPM is 2.88%. This risk-free rate is based on the average of the *Blue Chip* consensus forecast of the expected yields on 30-year U.S. Treasury bonds for the six quarters ending with the third calendar quarter of 2022, and long-term projections for the years 2023 to 2027 and 2028 to 2032.

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[13] Illustrated on Columns 1 and 2, page 2 of Schedule DWD-3.

[14] Illustrated on Column 4, page 2 of Schedule DWD-3.

[15] Annualized Return = (1 + Monthly Return) ^12 - 1

[16] See Column 6, page 2 of Schedule DWD-3.

[17] *Blue Chip Financial Forecasts*, June 1, 2021, at page 2 and 14.

Q. WHY DO YOU USE THE PROJECTED 30-YEAR TREASURY YIELD IN YOUR ANALYSES?

A. The yield on long-term U.S. Treasury bonds is almost risk-free and its term is consistent with the long-term cost of capital to public utilities measured by the yields on Moody's A2-rated public utility bonds; the long-term investment horizon inherent in utilities' common stocks; and the long-term life of the jurisdictional rate base to which the allowed fair rate of return (*i.e.*, cost of capital) will be applied. In contrast, short-term U.S. Treasury yields are more volatile and largely a function of Federal Reserve monetary policy.

2. The Total Market Risk Premium Approach

Q. PLEASE EXPLAIN THE TOTAL MARKET APPROACH RPM.

A. The total market approach RPM adds a prospective public utility bond yield to an average of: 1) an equity risk premium that is derived from a beta-adjusted total market equity risk premium, 2) an equity risk premium based on the S&P Utilities Index, and 3) an equity risk premium based on authorized ROEs for gas distribution utilities.

Q. PLEASE EXPLAIN THE BASIS OF THE EXPECTED BOND YIELD OF 3.99% APPLICABLE TO THE UTILITY PROXY GROUP.

A. The first step in the total market approach RPM analysis is to determine the expected bond yield. Because both ratemaking and the cost of capital, including common equity cost rate, are prospective in nature, a prospective yield on similarly-rated long-term debt is essential. I relied on a consensus forecast of about 50 economists of the expected yield on Aaa-rated corporate bonds for the six calendar quarters ending with the third calendar quarter of 2022, and *Blue Chip's* long-term projections for 2023 to 2027, and 2028 to 2032. As shown on line 1, page 3 of Schedule DWD-3, the average expected yield on Moody's Aaa-rated corporate bonds is 3.56%. To derive an expected yield on Moody's A2-rated public utility bonds, I made an upward adjustment of 0.39%, which represents a recent spread between Aaa-rated corporate bonds and A2-rated public utility bonds, in order to adjust the expected Aaa-rated corporate bond yield to an equivalent A2-rated public utility bond yield.[18] Adding that recent 0.39% spread to the expected Aaa-rated corporate bond yield of 3.56% results in an expected A2-rated public utility bond yield of 3.95%.

I then reviewed the average credit rating for the Utility Proxy Group from Moody's to determine if an adjustment to the estimated A2-rated public utility bond was necessary. Since the Utility Proxy Group's average Moody's long-term issuer rating is A2/A3, another adjustment to the expected A2-rated public utility bond is needed to reflect the difference in bond ratings. An upward adjustment of 0.04%, which represents one-sixth of a recent spread between A2-rated and Baa2-rated public utility bond yields, is necessary to make the A2 prospective bond yield applicable to an A2/A3-rated public utility bond.[19] Adding the 0.04% to the 3.96% prospective A2-rated public utility bond yield results in a 3.99% expected bond yield applicable to the Utility Proxy Group.

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[18] As shown on line 2 and explained in note 2, page 3 of Schedule DWD-3.

[19] As shown on line 4 and explained in note 3, page 3 of Schedule DWD-3. Moody's does not provide public utility bond yields for A2/A3-rated bonds. As such, it was necessary to estimate the difference between A2-rated and A2/A3-rated public utility bonds. Because there are three steps between Baa2 and A2 (Baa2 to Baa1, Baa1 to A3, and A3 to A2) I assumed an adjustment of one-sixth of the difference between the A2-rated and Baa2-rated public utility bond yield was appropriate.

Table 3: Summary of the Calculation of the Utility Proxy Group Projected Bond Yield[20]

Prospective Yield on Moody's Aaa-Rated Corporate Bonds (*Blue Chip)*	3.56%
Adjustment to Reflect Yield Spread Between Moody's Aaa-Rated Corporate Bonds and Moody's A2-Rated Utility Bonds	0.39%
Adjustment to Reflect the Utility Proxy Group's Average Moody's Bond Rating of A2/A3	0.04%
Prospective Bond Yield Applicable to the Utility Proxy Group	3.99%

To develop the indicated ROE using the total market approach RPM, this prospective bond yield is then added to the average of the three different equity risk premiums described below.

a. The Beta-Derived Risk Premium

Q. PLEASE EXPLAIN HOW THE BETA-DERIVED EQUITY RISK PREMIUM IS DETERMINED.

A. The components of the beta-derived risk premium model are: 1) an expected market equity risk premium over corporate bonds, and 2) the beta coefficient. The derivation of the beta-derived equity risk premium that I applied to the Utility Proxy Group is shown on lines 1 through 9, page 8 of Schedule DWD-3. The total beta-derived equity risk premium I applied is based on an average of three historical market data-based equity risk premiums, two *Value Line*-based equity risk premiums, and a Bloomberg-based equity risk premium. Each of these is described below.

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[20] As shown on page 3 of Schedule DWD-3.

Q. HOW DID YOU DERIVE A MARKET EQUITY RISK PREMIUM BASED ON LONG-TERM HISTORICAL DATA?

A. To derive a historical market equity risk premium, I used the most recent holding period returns for the large company common stocks from the Stocks, Bonds, Bills, and Inflation (SBBI) Yearbook 2021 (SBBI - 2021)[21] less the average historical yield on Moody's Aaa/Aa-rated corporate bonds for the period 1928 to 2020. Using holding period returns over a very long time is appropriate because it is consistent with the long-term investment horizon presumed by investing in a going concern, *i.e.*, a company expected to operate in perpetuity.

SBBI's long-term arithmetic mean monthly total return rate on large company common stocks was 11.94%, and the long-term arithmetic mean monthly yield on Moody's Aaa/Aa-rated corporate bonds was 6.02%.[22] As shown on line 1, page 8 of Schedule DWD-3, subtracting the mean monthly bond yield from the total return on large company stocks results in a long-term historical equity risk premium of 5.92%.

I used the arithmetic mean monthly total return rates for the large company stocks and yields (income returns) for the Moody's Aaa/Aa corporate bonds, because they are appropriate for the purpose of estimating the cost of capital as noted in SBBI - 2021.[23] Using the arithmetic mean return rates and yields is appropriate because historical total returns and equity risk premiums provide insight into the variance and standard deviation of returns needed by investors in

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[21] SBBI Appendix A Tables: Morningstar Stocks, Bonds, Bills, & Inflation 1926-2020.

[22] As explained in note 1, page 9 of Schedule DWD-3.

[23] SBBI - 2021, at 10-22 and 10-23.

estimating future risk when making a current investment. If investors relied on the geometric mean of historical equity risk premiums, they would have no insight into the potential variance of future returns, because the geometric mean relates the change over many periods to a <u>constant</u> rate of change, thereby obviating the year-to-year fluctuations, or variance, which is critical to risk analysis.

Q. PLEASE EXPLAIN THE DERIVATION OF THE REGRESSION-BASED MARKET EQUITY RISK PREMIUM.

A. To derive the regression-based market equity risk premium of 8.69% shown on line 2, page 8 of Schedule DWD-3, I used the same monthly annualized total returns on large company common stocks relative to the monthly annualized yields on Moody's Aaa/Aa-rated corporate bonds as mentioned above. I modeled the relationship between interest rates and the market equity risk premium using the observed monthly market equity risk premium as the dependent variable, and the monthly yield on Moody's Aaa/Aa-rated corporate bonds as the independent variable. I then used a linear Ordinary Least Squares ("OLS") regression, in which the market equity risk premium is expressed as a function of the Moody's Aaa/Aa-rated corporate bonds yield:

$$RP = \alpha + \beta \left(R_{Aaa/Aa}\right)$$

Q. PLEASE EXPLAIN THE DERIVATION OF THE PRPM EQUITY RISK PREMIUM.

A. I used the same PRPM approach described above to the PRPM equity risk premium. The inputs to the model are the historical monthly returns on large company common stocks minus the monthly yields on Moody's Aaa/Aa-rated corporate bonds during the period from January 1928 through May 2021.[24] Using the previously discussed generalized form of ARCH, known as GARCH, the projected equity risk premium is determined using Eviews© statistical software. The resulting PRPM predicted a market equity risk premium of 9.02%.[25]

Q. PLEASE EXPLAIN THE DERIVATION OF A PROJECTED EQUITY RISK PREMIUM BASED ON *VALUE LINE* DATA FOR YOUR RPM ANALYSIS.

A. As noted above, because both ratemaking and the cost of capital are prospective, a prospective market equity risk premium is needed. The derivation of the forecasted or prospective market equity risk premium can be found in note 4, page 9 of Schedule DWD-3. Consistent with my calculation of the dividend yield component in my DCF analysis, this prospective market equity risk premium is derived from an average of the three- to five-year median market price appreciation potential by *Value Line* for the 13 weeks ended May 28, 2021, plus an average of the median estimated dividend yield for the common stocks of the 1,700 firms covered in *Value Line*'s *Standard Edition*.[26]

The average median expected price appreciation is 28%, which translates to a 6.37% annual appreciation, and, when added to the average of *Value Line's* median expected dividend yields of 1.79%, equates to a forecasted annual total return rate on the market of 8.16%. The forecasted Moody's Aaa-rated corporate bond yield of 3.56% is deducted from the total market return of 8.16%, resulting in an equity risk premium of 4.60%, as shown on line 4, page 8 of Schedule DWD-3.

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[24] Data from January 1928 to December 2020 is from SBBI - 2021. Data from January 2021 to May 2021 is from Bloomberg.

[25] Shown on line 3, page 8 of Schedule DWD-3.

[26] As explained in detail in note 1, page 2 of Schedule DWD-4.

Q. PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM BASED ON THE S&P 500 COMPANIES.

A. Using data from *Value Line*, I calculated an expected total return on the S&P 500 companies using expected dividend yields and long-term growth estimates as a proxy for capital appreciation. The expected total return for the S&P 500 is 14.32%. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.56% results in an 10.76% projected equity risk premium.

Q. PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM BASED ON BLOOMBERG DATA.

A. Using data from Bloomberg, I calculated an expected total return on the S&P 500 using expected dividend yields and long-term growth estimates as a proxy for capital appreciation, identical to the method described above. The expected total return for the S&P 500 is 16.34%. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.56% results in a 12.78% projected equity risk premium.

Q. WHAT IS YOUR CONCLUSION OF A BETA-DERIVED EQUITY RISK PREMIUM FOR USE IN YOUR RPM ANALYSIS?

A. I gave equal weight to all six equity risk premiums based on each source - historical, *Value Line*, and Bloomberg - in arriving at a 8.63% equity risk premium.

Table 4: Summary of the Calculation of the Equity Risk Premium Using Total Market Returns[27]

Historical Spread Between Total Returns of Large Stocks and Aaa and Aa2-Rated Corporate Bond Yields (1928 – 2020)	5.92%
Regression Analysis on Historical Data	8.69%
PRPM Analysis on Historical Data	9.02%
Prospective Equity Risk Premium using Total Market Returns from *Value Line* Summary & Index less Projected Aaa Corporate Bond Yields	4.60%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P 500 less Projected Aaa Corporate Bond Yields	10.76%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P 500 less Projected Aaa Corporate Bond Yields	12.78%
Average	8.63%

After calculating the average market equity risk premium of 8.63%, I adjusted it by the beta coefficient to account for the risk of the Utility Proxy Group. As discussed below, the beta coefficient is a meaningful measure of prospective relative risk to the market as a whole, and is a logical way to allocate a company's, or proxy group's, share of the market's total equity risk premium relative to corporate bond yields. As shown on page 1 of Schedule DWD-4, the average of the mean and median beta coefficient for the Utility Proxy Group is 0.93. Multiplying the 0.93 average by the market equity risk premium of 8.63% results in a beta-adjusted equity risk premium for the Utility Proxy Group of 8.03%.

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[27] As shown on page 8 of Schedule DWD-3.

b. The S&P Utility Index Derived Risk Premium

Q. HOW DID YOU DERIVE THE EQUITY RISK PREMIUM BASED ON THE S&P UTILITY INDEX AND MOODY'S A-RATED PUBLIC UTILITY BONDS?

A. I estimated three equity risk premiums based on S&P Utility Index holding period returns, and two equity risk premiums based on the expected returns of the S&P Utilities Index, using *Value Line* and Bloomberg data, respectively. Turning first to the S&P Utility Index holding period returns, I derived a long-term monthly arithmetic mean equity risk premium between the S&P Utility Index total returns of 10.65%, and monthly Moody's A-rated public utility bond yields of 6.49% from 1928 to 2020, to arrive at an equity risk premium of 4.16%.[28] I then used the same historical data to derive an equity risk premium of 6.37% based on a regression of the monthly equity risk premiums. The final S&P Utility Index holding period equity risk premium involved applying the PRPM using the historical monthly equity risk premiums from January 1928 to May 2021 to arrive at a PRPM-derived equity risk premium of 5.41% for the S&P Utility Index.

I then derived expected total returns on the S&P Utilities Index of 11.40% and 9.77% using data from *Value Line* and Bloomberg, respectively, and subtracted the prospective Moody's A2-rated public utility bond yield of 3.95%[29], which resulted in equity risk premiums of 7.45% and 5.82%, respectively. As with the market equity risk premiums, I averaged each risk premium based on each source

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[28] As shown on line 1, page 12 of Schedule DWD-3.

[29] Derived on line 3, page 3 of Schedule DWD-3.

(*i.e.*, historical, *Value Line*, and Bloomberg) to arrive at my utility-specific equity risk premium of 5.84%.

Table 5: Summary of the Calculation of the Equity Risk Premium Using S&P Utility Index Holding Returns[30]

Historical Spread Between Total Returns of the S&P Utilities Index and A2-Rated Utility Bond Yields (1928 – 2020)	4.16%
Regression Analysis on Historical Data	6.37%
PRPM Analysis on Historical Data	5.41%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P Utilities Index less Projected A2 Utility Bond Yields	7.45%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P Utilities Index less Projected A2 Utility Bond Yields	5.82%
Average	5.84%

c. Authorized Return-Derived Equity Risk Premium

Q. HOW DID YOU DERIVE AN EQUITY RISK PREMIUM OF 5.64% BASED ON AUTHORIZED ROES FOR GAS DISTRIBUTION UTILITIES?

A. The equity risk premium of 5.64% shown on line 3, page 7 of Schedule DWD-3 is the result of a regression analysis based on regulatory awarded ROEs related to the yields on Moody's A-rated public utility bonds. That analysis is shown on page 13 of Schedule DWD-3 which contains the graphical results of a regression analysis of 800 rate cases for gas distribution utilities which were fully litigated during the period from January 1, 1980 through May 28, 2021. It shows the implicit equity risk premium relative to the yields on A-rated public utility bonds immediately prior to the issuance of each regulatory decision. It is readily discernible that there is an inverse relationship between the yield on A-rated public utility bonds and equity risk premiums. In other words, as interest rates decline, the equity risk premium

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[30] As shown on page 12 of Schedule DWD-3.

rises and vice versa, a result consistent with financial literature on the subject.[31] I used the regression results to estimate the equity risk premium applicable to the projected yield on Moody's A2-rated public utility bonds of 3.95%. Given the expected A-rated utility bond yield of 3.95%, it can be calculated that the indicated equity risk premium applicable to that bond yield is 5.64%, which is shown on line 3, page 7 of Schedule DWD-3.

Q. WHAT IS YOUR CONCLUSION OF AN EQUITY RISK PREMIUM FOR USE IN YOUR TOTAL MARKET APPROACH RPM ANALYSIS?

A. The equity risk premium I apply to the Utility Proxy Group is 6.50%, which is the average of the beta-adjusted equity risk premium for the Utility Proxy Group, the S&P Utilities Index, and the authorized return utility equity risk premiums of 8.03%, 5.84%, and 5.64%, respectively.[32]

Q. WHAT IS THE INDICATED RPM COMMON EQUITY COST RATE BASED ON THE TOTAL MARKET APPROACH?

A. As shown on line 7, page 3 of Schedule DWD-3, I calculated a common equity cost rate of 10.49% for the Utility Proxy Group based on the total market approach RPM.

Table 6: Summary of the Total Market Return Risk Premium Model[33]

Prospective Moody's A2/A3-Rated Utility Bond Applicable to the Utility Proxy Group	3.99%
Prospective Equity Risk Premium	6.50%
Indicated Cost of Common Equity	10.49%

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[31] *See*, *e.g.*, Robert S. Harris and Felicia C. Marston, *The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts*, Journal of Applied Finance, Vol. 11, No. 1, 2001, at pages 11 to 12; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at pages 33 to 45.

[32] As shown on page 7 of Schedule DWD-3.

[33] As shown on page 3 of Schedule DWD-3.

Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE PRPM AND THE TOTAL MARKET APPROACH RPM?

A. As shown on page 1 of Schedule DWD-3, the indicated RPM-derived common equity cost rate is 10.96%, which gives equal weight to the PRPM (11.43%) and the adjusted-market approach results (10.49%).

C. The Capital Asset Pricing Model

Q. PLEASE EXPLAIN THE THEORETICAL BASIS OF THE CAPM.

A. CAPM theory defines risk as the co-variability of a security's returns with the market's returns as measured by the beta coefficient (β). A beta coefficient less than 1.0 indicates lower variability than the market as a whole, while a beta coefficient greater than 1.0 indicates greater variability than the market.

The CAPM assumes that all non-market or unsystematic risk can be eliminated through diversification. The risk that cannot be eliminated through diversification is called market, or systematic, risk. In addition, the CAPM presumes that investors only require compensation for systematic risk, which is the result of macroeconomic and other events that affect the returns on all assets. The model is applied by adding a risk-free rate of return to a market risk premium, which is adjusted proportionately to reflect the systematic risk of the individual security relative to the total market as measured by the beta coefficient. The traditional CAPM model is expressed as:

$$R_s = R_f + \beta\,(R_m - R_f)$$

Where: R_s = Return rate on the common stock

R_f = Risk-free rate of return

R_m = Return rate on the market as a whole

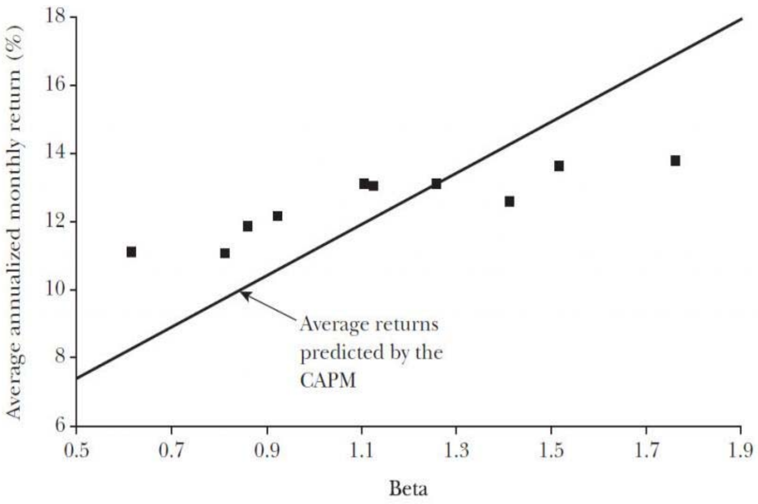
β = Adjusted beta coefficient (volatility of the security relative to the market as a whole)

Numerous tests of the CAPM have measured the extent to which security returns and beta coefficients are related as predicted by the CAPM, confirming its validity. The empirical CAPM ("ECAPM") reflects the reality that while the results of these tests support the notion that the beta coefficient is related to security returns, the empirical Security Market Line ("SML") described by the CAPM formula is not as steeply sloped as the predicted SML.[34]

The ECAPM reflects this empirical reality. Fama and French clearly state regarding Figure 2, below, that "[t]he returns on the low beta portfolios are too high, and the returns on the high beta portfolios are too low."[35]

Figure 2 http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430

Average Annualized Monthly Return versus Beta for Value Weight Portfolios Formed on Prior Beta, 1928–2003



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[34] Roger A. Morin, New Regulatory Finance (Public Utility Reports, Inc., 2006), at 175. (Morin)

[35] Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and Evidence", *Journal of Economic Perspectives*, Vol. 18, No. 3, Summer 2004 at 33 (Fama & French).

In addition, Morin observes that while the results of these tests support the notion that beta is related to security returns, the empirical SML described by the CAPM formula is not as steeply sloped as the predicted SML. Morin states:

> With few exceptions, the empirical studies agree that … low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted.[36]
>
> * * *
>
> Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:
>
> $$K = R_F + x\,\beta(R_M - R_F) + (1\text{-}x)\ \beta(R_M - R_F)$$
>
> where x is a fraction to be determined empirically. The value of x that best explains the observed relationship [is] Return = 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:
>
> $$K = R_F + 0.25(R_M - R_F) + 0.75\,\beta(R_M - R_F)$$[37]

Fama and French provide similar support for the ECAPM when they state:

> The early tests firmly reject the Sharpe-Lintner version of the CAPM. There is a positive relation between beta and average return, but it is too 'flat.'… The regressions consistently find that the intercept is greater than the average risk-free rate… and the coefficient on beta is less than the average excess market return… This is true in the early tests… as well as in more recent cross-section regressions tests, like Fama and French (1992).[38]

Finally, Fama and French further note:

> Confirming earlier evidence, the relation between beta and average return for the ten portfolios is much flatter than the Sharpe-Linter CAPM predicts. The returns on low beta portfolios are too high, and the returns on the high beta portfolios are too low. For example, the predicted return on the portfolio with the lowest beta is 8.3 percent per year; the actual return as 11.1 percent. The predicted return on the portfolio with the t beta is 16.8 percent per year; the actual is 13.7 percent.[39]

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[36] Morin, at 175.

[37] Morin, at 190.

[38] Fama & French, at 32.

[39] *Ibid.*, at 33.

Clearly, the justification from Morin, Fama, and French, along with their reviews of other academic research on the CAPM, validate the use of the ECAPM. In view of theory and practical research, I have applied both the traditional CAPM and the ECAPM to the companies in the Utility Proxy Group and averaged the results.

Q. WHAT BETA COEFFICIENTS DID YOU USE IN YOUR CAPM ANALYSIS?

A. For the beta coefficients in my CAPM analysis, I considered two sources: *Value Line* and Bloomberg Professional Services. While both of those services adjust their calculated (or "raw") beta coefficients to reflect the tendency of the beta coefficient to regress to the market mean of 1.00, *Value Line* calculates the beta coefficient over a five-year period, while Bloomberg calculates it over a two-year period.

Q. PLEASE DESCRIBE YOUR SELECTION OF A RISK-FREE RATE OF RETURN.

A. As discussed previously, the risk-free rate adopted for both applications of the CAPM is 2.88%. This risk-free rate is based on the average of the *Blue Chip* consensus forecast of the expected yields on 30-year U.S. Treasury bonds for the six quarters ending with the third calendar quarter of 2022, and long-term projections for the years 2023 to 2027 and 2028 to 2032.

Q. PLEASE EXPLAIN THE ESTIMATION OF THE EXPECTED RISK PREMIUM FOR THE MARKET USED IN YOUR CAPM ANALYSES.

A. The basis of the market risk premium is explained in detail in note 1 on Schedule DWD-4. As discussed above, the market risk premium is derived from an average of three historical data-based market risk premiums, two *Value Line* data-based market risk premiums, and one Bloomberg data-based market risk premium.

The long-term income return on U.S. Government securities of 5.05% was deducted from the SBBI - 2021 monthly historical total market return of 12.20%, which results in an historical market equity risk premium of 7.15%.[40] I applied a linear OLS regression to the monthly annualized historical returns on the S&P 500 relative to historical yields on long-term U.S. Government securities from SBBI - 2021. That regression analysis yielded a market equity risk premium of 9.39%. The PRPM market equity risk premium is 10.04% and is derived using the PRPM relative to the yields on long-term U.S. Treasury securities from January 1926 through May 2021.

The *Value Line*-derived forecasted total market equity risk premium is derived by deducting the forecasted risk-free rate of 2.88%, discussed above, from the *Value Line* projected total annual market return of 8.16%, resulting in a forecasted total market equity risk premium of 5.28%. The S&P 500 projected market equity risk premium using *Value Line* data is derived by subtracting the projected risk-free rate of 2.88% from the projected total return of the S&P 500 of 14.32%. The resulting market equity risk premium is 11.44%.

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[40] SBBI - 2021, at Appendix A-1 (1) through A-1 (3) and Appendix A-7 (19) through A-7 (21).

The S&P 500 projected market equity risk premium using Bloomberg data is derived by subtracting the projected risk-free rate of 2.88% from the projected total return of the S&P 500 of 16.34%. The resulting market equity risk premium is 13.46%. These six measures, when averaged, result in an average total market equity risk premium of 9.46%.

Table 7: Summary of the Calculation of the Market Risk Premium for Use in the CAPM[41]

Historical Spread Between Total Returns of Large Stocks and Long-Term Government Bond Yields (1926 – 2020)	7.15%
Regression Analysis on Historical Data	9.39%
PRPM Analysis on Historical Data	10.04%
Prospective Equity Risk Premium using Total Market Returns from *Value Line* Summary & Index less Projected 30-Year Treasury Bond Yields	5.28%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P 500 less Projected 30-Year Treasury Bond Yields	11.44%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P 500 less Projected 30-Year Treasury Bond Yields	13.46%
Average	9.46%

Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE TRADITIONAL AND EMPIRICAL CAPM TO THE UTILITY PROXY GROUP?

A. As shown on page 1 of Schedule DWD-4, the mean result of my CAPM/ECAPM analyses is 11.81%, the median is 11.68%, and the average of the two is 11.75%. Consistent with my reliance on the average of mean and median DCF results discussed above, the indicated common equity cost rate using the CAPM/ECAPM is 11.75%.

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[41] As shown on page 2 of Schedule DWD-4.

D. Common Equity Cost Rates for a Proxy Group of Domestic, Non-Price Regulated Companies Based on the DCF, RPM, and CAPM

Q. WHY DO YOU ALSO CONSIDER A PROXY GROUP OF DOMESTIC, NON-PRICE REGULATED COMPANIES?

A. In the *Hope* and *Bluefield* cases, the U.S. Supreme Court did not specify that comparable risk companies had to be utilities. Since the purpose of rate regulation is to be a substitute for marketplace competition, non-price regulated firms operating in the competitive marketplace make an excellent proxy group if they are comparable in total risk to the Utility Proxy Group being used to estimate the cost of common equity. The selection of such domestic, non-price regulated competitive firms theoretically and empirically results in a proxy group which is comparable in total risk to the Utility Proxy Group, since all of these companies compete for capital in the exact same markets.

Q. HOW DID YOU SELECT NON-PRICE REGULATED COMPANIES THAT ARE COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?

A. In order to select a proxy group of domestic, non-price regulated companies similar in total risk to the Utility Proxy Group, I relied on the beta coefficients and related statistics derived from *Value Line* regression analyses of weekly market prices over the most recent 260 weeks (*i.e.*, five years). These selection criteria resulted in a proxy group of 48 domestic, non-price regulated firms comparable in total risk to the Utility Proxy Group. Total risk is the sum of non-diversifiable market risk and diversifiable company-specific risks. The criteria used in selecting the domestic, non-price regulated firms was:

(i) They must be covered by *Value Line Investment Survey* (Standard Edition);

(ii) They must be domestic, non-price regulated companies, *i.e.*, not utilities;

(iii) Their beta coefficients must lie within plus or minus two standard deviations of the average unadjusted beta coefficients of the Utility Proxy Group; and

(iv) The residual standard errors of the *Value Line* regressions which gave rise to the unadjusted beta coefficients must lie within plus or minus two standard deviations of the average residual standard error of the Utility Proxy Group.

Beta coefficients measure market, or systematic, risk, which is not diversifiable. The residual standard errors of the regressions measure each firm's company-specific, diversifiable risk. Companies that have similar beta coefficients <u>and</u> similar residual standard errors resulting from the same regression analyses have similar total investment risk.

Q. HAVE YOU PREPARED AN SCHEDULE WHICH SHOWS THE DATA FROM WHICH YOU SELECTED THE 48 DOMESTIC, NON-PRICE REGULATED COMPANIES THAT ARE COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?

A. Yes, the basis of my selection and both proxy groups' regression statistics are shown in Schedule DWD-5.

Q. DID YOU CALCULATE COMMON EQUITY COST RATES USING THE DCF MODEL, RPM, AND CAPM FOR THE NON-PRICE REGULATED PROXY GROUP?

A. Yes. Because the DCF model, RPM, and CAPM have been applied in an identical manner as described above, I will not repeat the details of the rationale and application of each model. One exception is in the application of the RPM, where I did not use public utility-specific equity risk premiums, nor did I apply the PRPM to the individual non-price regulated companies.

Page 2 of Schedule DWD-6 derives the constant growth DCF model common equity cost rate. As shown, the indicated common equity cost rate, using the constant growth DCF for the Non-Price Regulated Proxy Group comparable in total risk to the Utility Proxy Group, is 12.83%.

Pages 3 through 5 of Schedule DWD-6 contain the data and calculations that support the 12.49% RPM common equity cost rate. As shown on line 1, page 3 of Schedule DWD-6, the consensus prospective yield on Moody's Baa-rated corporate bonds for the six quarters ending in the third quarter of 2022, and for the years 2023 to 2027 and 2028 to 2032, is 4.46%.[42]

When the beta-adjusted risk premium of 8.03%[43] relative to the Non-Price Regulated Proxy Group is added to the prospective Baa2-rated corporate bond yield of 4.46%, the indicated RPM common equity cost rate is 12.49%.

Page 6 of Schedule DWD-6 contains the inputs and calculations that support my indicated CAPM/ECAPM common equity cost rate of 11.69%.

Q. HOW IS THE COST RATE OF COMMON EQUITY BASED ON THE NON-PRICE REGULATED PROXY GROUP COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?

A. As shown on page 1 of Schedule DWD-6, the results of the common equity models applied to the Non-Price Regulated Proxy Group -- which group is comparable in

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[42] *Blue Chip Financial Forecasts*, June 1, 2021, at page 2 and 14.

[43] Derived on page 5 of Schedule DWD-6.

total risk to the Utility Proxy Group -- are as follows: 12.83% (DCF), 12.49% (RPM), and 11.69% (CAPM). The average of the mean and median of these models is 12.42%, which I used as the indicated common equity cost rates for the Non-Price Regulated Proxy Group.

VI. CONCLUSION OF COMMON EQUITY COST RATE BEFORE ADJUSTMENTS

Q. WHAT ARE THE INDICATED COMMON EQUITY COST RATES BEFORE ADJUSTMENTS?

A. By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates before any relative risk adjustment is between 9.44% and 12.42%. The spread between the high and low values in the range (298 basis points) indicates that there is still a fair amount of uncertainty around the recovery from the COVID-19 pandemic. I used multiple cost of common equity models as primary tools in arriving at my recommended common equity cost rate, because no single model is so inherently precise that it can be relied on to the exclusion of other theoretically sound models. Using multiple models adds reliability to the estimated common equity cost rate, with the prudence of using multiple cost of common equity models supported in both the financial literature and regulatory precedent.

VII. ADJUSTMENTS TO THE COMMON EQUITY COST RATE

A. Size Adjustment

Q. DOES ATMOS ENERGY'S SMALLER SIZE RELATIVE TO THE UTILITY PROXY GROUP COMPANIES INCREASE ITS BUSINESS RISK?

A. Yes. Atmos Energy's smaller size relative to the Utility Proxy Group companies indicates greater relative business risk for the Company because, all else being equal, size has a material bearing on risk.

Size affects business risk because smaller companies generally are less able to cope with significant events that affect sales, revenues and earnings. For example, smaller companies face more risk exposure to business cycles and economic conditions, both nationally and locally. Additionally, the loss of revenues from a few larger customers would have a greater effect on a small company than on a bigger company with a larger, more diverse, customer base.

As further evidence that smaller firms are riskier, investors generally demand greater returns from smaller firms to compensate for less marketability and liquidity of their securities. Duff & Phelps 2020 Valuation Handbook Guide to Cost of Capital - Market Results through 2019 (D&P - 2020) discusses the nature of the small-size phenomenon, providing an indication of the magnitude of the size premium based on several measures of size. In discussing "Size as a Predictor of Equity Premiums," D&P - 2020 states:

> The size effect is based on the empirical observation that companies of smaller size are associated with greater risk and, therefore, have greater cost of capital [sic]. The "size" of a company is one of the most important risk elements to consider when developing cost of equity capital estimates for use in valuing a business simply because

> size has been shown to be a *predictor* of equity returns. In other words, there is a significant (negative) relationship between size and historical equity returns - as size *decreases*, returns tend to *increase*, and vice versa. (footnote omitted) (emphasis in original)[44]

Furthermore, in "The Capital Asset Pricing Model: Theory and Evidence," Fama and French note size is indeed a risk factor which must be reflected when estimating the cost of common equity. On page 14, they note:

> . . . the higher average returns on small stocks and high book-to-market stocks reflect unidentified state variables that produce undiversifiable risks (covariances) in returns not captured in the market return and are priced separately from market betas.[45]

Based on this evidence, Fama and French proposed their three-factor model which includes a size variable in recognition of the effect size has on the cost of common equity.

Also, it is a basic financial principle that the use of funds invested, and not the source of funds, is what gives rise to the risk of any investment.[46] Eugene Brigham, a well-known authority, states:

> A number of researchers have observed that portfolios of small-firms (sic) have earned consistently higher average returns than those of large-firm stocks; this is called the "small-firm effect." On the surface, it would seem to be advantageous to the small firms to provide average returns in a stock market that are higher than those of larger firms. In reality, it is bad news for the small firm; **what the small-firm effect means is that the capital market demands higher returns on stocks of small firms than on otherwise similar stocks of the large firms**. (emphasis added)[47]

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[44] Duff & Phelps Valuation Handbook – U.S. Guide to Cost of Capital, Wiley 2020, at 4-1.

[45] Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and Evidence," *Journal of Economic Perspectives*, Volume 18, Number 3, Summer 2004, at 25-43.

[46] Brealey, Richard A. and Myers, Stewart C., Principles of Corporate Finance (McGraw-Hill Book Company, 1996), at 204-205, 229.

[47] Brigham, Eugene F., Fundamentals of Financial Management, Fifth Edition (The Dryden Press, 1989), at 623.

Consistent with the financial principle of risk and return discussed above, increased relative risk due to small size must be considered in the allowed rate of return on common equity. Therefore, the Commission's authorization of a cost rate of common equity in this proceeding must appropriately reflect the unique risks of Atmos Energy, including its small size, which is justified and supported above by evidence in the financial literature.

Q. IS THERE A WAY TO QUANTIFY A RELATIVE RISK ADJUSTMENT DUE TO ATMOS ENERGY'S SMALL SIZE RELATIVE TO THE UTILITY PROXY GROUP?

A. Yes. Atmos Energy has greater relative risk than the average utility in the Utility Proxy Group because of its smaller size compared with the utilities in that group, as measured by an estimated market capitalization of common equity for Atmos Energy.

Table 8: Size as Measured by Market Capitalization for Atmos Energy and the Utility Proxy Group

	Market Capitalization* ($ Millions)	Times Greater than The Company
Atmos Energy	$597.101	
Utility Proxy Group	$4,615.314	7.7x
*From page 1 of Schedule DWD-7.		

Atmos Energy's estimated market capitalization was $597.101 million as of May 28, 2021,[48] compared with the market capitalization of the average company

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[48] $597.101 (company-provided forecasted rate base at Twelve Months Ended December 31, 2022) * requested equity ratio of 57.05% * 175.6% (market-to-book ratio of the Utility Proxy Group) as demonstrated on page 2 of Schedule DWD-7.

in the Utility Proxy Group of $4.6 billion as of May 28, 2021. The average company in the Utility Proxy Group has a market capitalization 7.7 times the size of Atmos Energy's estimated market capitalization.

As a result, it is necessary to upwardly adjust the range of indicated common equity cost rates between 9.44% to 12.42% to reflect Atmos Energy's greater risk due to their smaller relative size. The determination is based on the size premiums for portfolios of New York Stock Exchange, American Stock Exchange, and NASDAQ listed companies ranked by deciles for the 1926 to 2020 period. The average size premium for the Utility Proxy Group with a market capitalization of $4.6 billion falls in the 4th decile, while the Company's estimated market capitalization of $597.101 million places it in the 8th decile. The size premium spread between the 4th decile and the 8th decile is 0.71%. Even though a 0.71% upward size adjustment is indicated, I applied a size premium of 0.20% to the Company's range of indicated common equity cost rates.

Q. SINCE ATMOS ENERGY IS A DIVISION OF ATO, WHY IS THE SIZE OF THE TOTAL COMPANY NOT MORE APPROPRIATE TO USE WHEN DETERMINING THE SIZE ADJUSTMENT?

A. As discussed previously, rates are set using the stand-alone principle, which maintains that the utility operations of a diversified firm should be regulated as though they were independent (*i.e.*, without subsidies to or from affiliated companies). Because of this, the return derived in this proceeding will not apply to ATO as a whole, but only Atmos Energy's Kentucky gas distribution operations. ATO is the sum of its constituent parts, including those constituent parts' ROEs.

Potential investors in the Company are aware that it is a combination of operations in each state, and that each state's operations experience the operating risks specific to their jurisdiction. The market's expectation of ATO's return is commensurate with the realities of its composite operations in each of the states in which it operates.

B. <u>Credit Risk Adjustment</u>

Q. PLEASE DISCUSS YOUR PROPOSED CREDIT RISK ADJUSTMENT.

ATO's long-term issuer ratings are A1 and A from Moody's Investors Services and S&P, respectively, which are less risky than the average long-term issuer ratings for the Utility Proxy Group of A2/A3 and A-, respectively.[49] Hence, a downward credit risk adjustment is necessary to reflect the less risky credit rating, *i.e.,* A1, of Atmos Energy relative to the A2/A3 average Moody's bond rating of the Utility Proxy Group.[50]

An indication of the magnitude of the necessary downward adjustment to reflect the lower credit risk inherent in an A1 bond rating is one-third of a recent three-month average spread between Moody's A- and Aa-rated public utility bond yields and one-sixth of a recent spread between A- and Baa-rated public utility bonds, shown on page 4 of Schedule DWD-3, or 0.10%.[51]

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[49] Source of Information: S&P Global Market Intelligence.

[50] As shown on page 5 of Schedule DWD-3.

[51] 1/3 * 0.17% = 0.06% + 1/6 * 0.26% = 0.04%. 0.06% + 0.04% = 0.10%.

C. Flotation Cost Adjustment

Q. WHAT ARE FLOTATION COSTS?

A. Flotation costs are those costs associated with the sale of new issuances of common stock. They include market pressure and the mandatory unavoidable costs of issuance (*e.g.*, underwriting fees and out-of-pocket costs for printing, legal, registration, etc.). For every dollar raised through debt or equity offerings, the Company receives less than one full dollar in financing.

Q. WHY IS IT IMPORTANT TO RECOGNIZE FLOTATION COSTS IN THE ALLOWED COMMON EQUITY COST RATE?

A. It is important because there is no other mechanism in the ratemaking paradigm through which such costs can be recognized and recovered. Because these costs are real, necessary, and legitimate, recovery of these costs should be permitted. As noted by Morin:

> The costs of issuing these securities are just as real as operating and maintenance expenses or costs incurred to build utility plants, and fair regulatory treatment must permit recovery of these costs….
>
> The simple fact of the matter is that common equity capital is not free….[Flotation costs] must be recovered through a rate of return adjustment.[52]

Q. SHOULD FLOTATION COSTS BE RECOGNIZED ONLY IF THERE WAS AN ISSUANCE DURING THE TEST YEAR OR THERE IS AN IMMINENT POST-TEST YEAR ISSUANCE OF ADDITIONAL COMMON STOCK?

A. No. As noted above, there is no mechanism to recapture such costs in the ratemaking paradigm other than an adjustment to the allowed common equity cost

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[52] Morin, at p. 321.

rate. Flotation costs are charged to capital accounts and are not expensed on a utility's income statement. As such, flotation costs are analogous to capital investments, albeit negative, reflected on the balance sheet. Recovery of capital investments relates to the expected useful lives of the investment. Since common equity has a very long and indefinite life (assumed to be infinity in the standard regulatory DCF model), flotation costs should be recovered through an adjustment to common equity cost rate, even when there has not been an issuance during the test year, or in the absence of an expected imminent issuance of additional shares of common stock.

Historical flotation costs are a permanent loss of investment to the utility and should be accounted for. When any company, including a utility, issues common stock, flotation costs are incurred for legal, accounting, printing fees and the like. For each dollar of issuing market price, a small percentage is expensed and is permanently unavailable for investment in utility rate base. Since these expenses are charged to capital accounts and not expensed on the income statement, the only way to restore the full value of that dollar of issuing price with an assumed investor required return of 10% is for the net investment, $0.95, to earn more than 10% to net back to the investor a fair return on that dollar. In other words, if a company issues stock at $1.00 with 5% in flotation costs, it will net $0.95 in investment. Assuming the investor in that stock requires a 10% return on his or her invested $1.00 (*i.e.*, a return of $0.10), the company needs to earn approximately 10.5% on its invested $0.95 to receive a $0.10 return.

Q. DO THE COMMON EQUITY COST RATE MODELS YOU HAVE USED ALREADY REFLECT INVESTORS' ANTICIPATION OF FLOTATION COSTS?

A. No. All of these models assume no transaction costs. The literature is quite clear that these costs are not reflected in the market prices paid for common stocks. For example, Brigham and Daves confirm this and provide the methodology utilized to calculate the flotation adjustment.[53] In addition, Morin confirms the need for such an adjustment even when no new equity issuance is imminent.[54] Consequently, it is proper to include a flotation cost adjustment when using cost of common equity models to estimate the common equity cost rate.

Q. HOW DID YOU CALCULATE THE FLOTATION COST ALLOWANCE?

A. I modified the DCF calculation to provide a dividend yield that would reimburse investors for issuance costs in accordance with the method cited in literature by Brigham and Daves, as well as by Morin. The flotation cost adjustment recognizes the actual costs of issuing equity that were incurred by ATO in its last four equity issuances. Based on the issuance costs shown on page 1 of Schedule DWD-8, an adjustment of 0.04% is required to reflect the flotation costs applicable to the Utility Proxy Group.

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[53] Eugene F. Brigham and Phillip R. Daves, Intermediate Financial Management, 9th Edition, Thomson/Southwestern, at p. 342.

[54] Morin, at pp. 327-30.

VIII. CONCLUSION

Q. WHAT IS YOUR RECOMMENDED ROE FOR ATMOS ENERGY?

A. Given the indicated ROE range applicable to the Utility Proxy Group of 9.44% to 12.42% and the Company-specific ROE range of 9.58% to 12.42%, I conclude that an appropriate ROE for the Company is 10.35%.

Q. IN YOUR OPINION, IS YOUR PROPOSED ROE OF 10.35% FAIR AND REASONABLE TO ATMOS ENERGY AND ITS CUSTOMERS?

A. Yes, it is.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF)
RATE APPLICATION OF) Case No. 2021-00214
ATMOS ENERGY CORPORATION)

CERTIFICATE AND AFFIDAVIT

The Affiant, Dylan W. D'Ascendis, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared direct testimony of this affiant in Case No. 2021-00214, in the Matter of the Rate Application of Atmos Energy Corporation, and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared direct pre-filed testimony.

Dylan W. D'Ascendis

STATE OF NEW JERSEY
COUNTY OF BURLINGTON

SUBSCRIBED AND SWORN to before me by Dylan W. D'Ascendis on this the 14th day of June, 2021.

Margaret A Clancy
Notary Public of New Jersey
My Commission Expires 6/9/2024

Margaret A Clancy
Notary Public

My Commission Expires: 6/9/2024

Appendix A - Resume & Testimony Listing of:
Dylan W. D’Ascendis, CRRA, CVA
Partner

Summary

Dylan is an experienced consultant and a Certified Rate of Return Analyst (CRRA) and Certified Valuation Analyst (CVA). He has served as a consultant for investor-owned and municipal utilities and authorities for 12 years. Dylan has extensive experience in rate of return analyses, class cost of service, rate design, and valuation for regulated public utilities. He has testified as an expert witness in the subjects of rate of return, cost of service, rate design, and valuation before 30 regulatory commissions in the U.S., one Canadian province, and an American Arbitration Association panel.

He also maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured.

Areas of Specialization

- Regulation and Rates
- Utilities
- Mutual Fund Benchmarking
- Capital Market Risk
- Financial Modeling
- Valuation
- Regulatory Strategy
- Rate Case Support
- Rate of Return
- Cost of Service
- Rate Design

Recent Expert Testimony Submission/Appearances

Jurisdiction	***Topic***
Massachusetts Department of Public Utilities	Rate of Return
New Jersey Board of Public Utilities	Rate of Return
Hawaii Public Utilities Commission	Cost of Service, Rate Design
South Carolina Public Service Commission	Return on Common Equity
American Arbitration Association	Valuation

Recent Assignments

- Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies
- Maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured
- Sponsored valuation testimony for a large municipal water company in front of an American Arbitration Association Board to justify the reasonability of their lease payments to the City
- Co-authored a valuation report on behalf of a large investor-owned utility company in response to a new state regulation which allowed the appraised value of acquired assets into rate base

Recent Publications and Speeches

- Co-Author of: “Decoupling, Risk Impacts and the Cost of Capital”, co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. The Electricity Journal, March, 2020.
- Co-Author of: “Decoupling Impact and Public Utility Conservation Investment”, co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. Energy Policy Journal, 130 (2019), 311-319.
- “Establishing Alternative Proxy Groups”, before the Society of Utility and Regulatory Financial Analysts: 51st Financial Forum, April 4, 2019, New Orleans, LA.
- “Past is Prologue: Future Test Year”, Presentation before the National Association of Water Companies 2017 Southeast Water Infrastructure Summit, May 2, 2017, Savannah, GA.
- Co-author of: “Comparative Evaluation of the Predictive Risk Premium Model$^{\text{TM}}$, the Discounted Cash Flow Model and the Capital Asset Pricing Model”, co-authored with Richard A. Michelfelder, Ph.D., Rutgers University, Pauline M. Ahern, and Frank J. Hanley, The Electricity Journal, May, 2013.
- “Decoupling: Impact on the Risk and Cost of Common Equity of Public Utility Stocks”, before the Society of Utility and Regulatory Financial Analysts: 45th Financial Forum, April 17-18, 2013, Indianapolis, IN.

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Regulatory Commission of Alaska				
Alaska Power Company	09/20	Alaska Power Company; Goat Lake Hydro, Inc.; BBL Hydro, Inc.	Tariff Nos. TA886-2; TA6-521; TA4-573	Capital Structure
Alaska Power Company	07/16	Alaska Power Company	Docket No. TA857-2	Rate of Return
Alberta Utilities Commission				
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	01/20	AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	2021 Generic Cost of Capital, Proceeding ID. 24110	Rate of Return
Arizona Corporation Commission				
EPCOR Water Arizona, Inc.	06/20	EPCOR Water Arizona, Inc.	Docket No. WS-01303A-20-0177	Rate of Return
Arizona Water Company	12/19	Arizona Water Company – Western Group	Docket No. W-01445A-19-0278	Rate of Return
Arizona Water Company	08/18	Arizona Water Company – Northern Group	Docket No. W-01445A-18-0164	Rate of Return
Arkansas Public Service Commission				
CenterPoint Energy Resources Corp.	05/21	CenterPoint Arkansas Gas	Docket No. 21-004-U	Return on Equity
Colorado Public Utilities Commission				
Summit Utilities, Inc.	04/18	Colorado Natural Gas Company	Docket No. 18AL-0305G	Rate of Return
Atmos Energy Corporation	06/17	Atmos Energy Corporation	Docket No. 17AL-0429G	Rate of Return
Delaware Public Service Commission				
Delmarva Power & Light Co.	11/20	Delmarva Power & Light Co.	Docket No. 20-0149 (Electric)	Return on Equity
Delmarva Power & Light Co.	10/20	Delmarva Power & Light Co.	Docket No. 20-0150 (Gas)	Return on Equity
Tidewater Utilities, Inc.	11/13	Tidewater Utilities, Inc.	Docket No. 13-466	Capital Structure
Public Service Commission of the District of Columbia				
Washington Gas Light Company	09/20	Washington Gas Light Company	Formal Case No. 1162	Rate of Return
Federal Energy Regulatory Commission				
LS Power Grid California, LLC	10/20	LS Power Grid California, LLC	Docket No. ER21-195-000	Rate of Return
Florida Public Service Commission				
Tampa Electric Company	04/21	Tampa Electric Company	Docket No. 20210034-EI	Return on Equity
Peoples Gas System	09/20	Peoples Gas System	Docket No. 20200051-GU	Rate of Return
Utilities, Inc. of Florida	06/20	Utilities, Inc. of Florida	Docket No. 20200139-WS	Rate of Return
Hawaii Public Utilities Commission				
Launiupoko Irrigation Company, Inc.	12/20	Launiupoko Irrigation Company, Inc.	Docket No. 2020-0217 / Transferred to 2020-0089	Capital Structure
Lanai Water Company, Inc.	12/19	Lanai Water Company, Inc.	Docket No. 2019-0386	Cost of Service / Rate Design
Manele Water Resources, LLC	08/19	Manele Water Resources, LLC	Docket No. 2019-0311	Cost of Service / Rate Design
Kaupulehu Water Company	02/18	Kaupulehu Water Company	Docket No. 2016-0363	Rate of Return
Aqua Engineers, LLC	05/17	Puhi Sewer & Water Company	Docket No. 2017-0118	Cost of Service / Rate Design

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Hawaii Resources, Inc.	09/16	Laie Water Company	Docket No. 2016-0229	Cost of Service / Rate Design
Illinois Commerce Commission				
Utility Services of Illinois, Inc.	02/21	Utility Services of Illinois, Inc.	Docket No. 21-0198	Rate of Return
Ameren Illinois Company d/b/a Ameren Illinois	07/20	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 20-0308	Return on Equity
Utility Services of Illinois, Inc.	11/17	Utility Services of Illinois, Inc.	Docket No. 17-1106	Cost of Service / Rate Design
Aqua Illinois, Inc.	04/17	Aqua Illinois, Inc.	Docket No. 17-0259	Rate of Return
Utility Services of Illinois, Inc.	04/15	Utility Services of Illinois, Inc.	Docket No. 14-0741	Rate of Return
Indiana Utility Regulatory Commission				
Aqua Indiana, Inc.	03/16	Aqua Indiana, Inc. Aboite Wastewater Division	Docket No. 44752	Rate of Return
Twin Lakes, Utilities, Inc.	08/13	Twin Lakes, Utilities, Inc.	Docket No. 44388	Rate of Return
Kansas Corporation Commission				
Atmos Energy	07/19	Atmos Energy	19-ATMG-525-RTS	Rate of Return
Kentucky Public Service Commission				
Duke Energy Kentucky, Inc.	06/21	Duke Energy Kentucky, Inc.	2021-00190	Return on Equity
Bluegrass Water Utility Operating Company	10/20	Bluegrass Water Utility Operating Company	2020-00290	Return on Equity
Louisiana Public Service Commission				
Southwestern Electric Power Company	12/20	Southwestern Electric Power Company	Docket No. U-35441	Return on Equity
Atmos Energy	04/20	Atmos Energy	Docket No. U-35535	Rate of Return
Louisiana Water Service, Inc.	06/13	Louisiana Water Service, Inc.	Docket No. U-32848	Rate of Return
Maryland Public Service Commission				
Washington Gas Light Company	08/20	Washington Gas Light Company	Case No. 9651	Rate of Return
FirstEnergy, Inc.	08/18	Potomac Edison Company	Case No. 9490	Rate of Return
Massachusetts Department of Public Utilities				
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Elec.)	D.P.U. 19-130	Rate of Return
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Gas)	D.P.U. 19-131	Rate of Return
Liberty Utilities	07/15	Liberty Utilities d/b/a New England Natural Gas Company	Docket No. 15-75	Rate of Return
Minnesota Public Utilities Commission				
Northern States Power Company	11/20	Northern States Power Company	Docket No. E002/GR-20-723	Rate of Return
Mississippi Public Service Commission				
Atmos Energy	03/19	Atmos Energy	Docket No. 2015-UN-049	Capital Structure
Atmos Energy	07/18	Atmos Energy	Docket No. 2015-UN-049	Capital Structure
Missouri Public Service Commission				
Spire Missouri, Inc.	12/20	Spire Missouri, Inc.	Case No. GR-2021-0108	Return on Equity
Indian Hills Utility Operating Company, Inc.	10/17	Indian Hills Utility Operating Company, Inc.	Case No. SR-2017-0259	Rate of Return

SPONSOR	**DATE**	**CASE/APPLICANT**	**DOCKET NO.**	**SUBJECT**
Raccoon Creek Utility Operating Company, Inc.	09/16	Raccoon Creek Utility Operating Company, Inc.	Docket No. SR-2016-0202	Rate of Return
Public Utilities Commission of Nevada				
Southwest Gas Corporation	08/20	Southwest Gas Corporation	Docket No. 20-02023	Return on Equity
New Hampshire Public Utilities Commission				
Aquarion Water Company of New Hampshire, Inc.	12/20	Aquarion Water Company of New Hampshire, Inc.	Docket No. DW 20-184	Rate of Return
New Jersey Board of Public Utilities				
Middlesex Water Company	05/21	Middlesex Water Company	Docket No. WR21050813	Rate of Return
Atlantic City Electric Company	12/20	Atlantic City Electric Company	Docket No. ER20120746	Return on Equity
FirstEnergy	02/20	Jersey Central Power & Light Co.	Docket No. ER20020146	Rate of Return
Aqua New Jersey, Inc.	12/18	Aqua New Jersey, Inc.	Docket No. WR18121351	Rate of Return
Middlesex Water Company	10/17	Middlesex Water Company	Docket No. WR17101049	Rate of Return
Middlesex Water Company	03/15	Middlesex Water Company	Docket No. WR15030391	Rate of Return
The Atlantic City Sewerage Company	10/14	The Atlantic City Sewerage Company	Docket No. WR14101263	Cost of Service / Rate Design
Middlesex Water Company	11/13	Middlesex Water Company	Docket No. WR1311059	Capital Structure
New Mexico Public Regulation Commission				
Southwestern Public Service Company	01/21	Southwestern Public Service Company	Case No. 20-00238-UT	Return on Equity
North Carolina Utilities Commission				
Piedmont Natural Gas Co.Inc.	03/21	Piedmont Natural Gas Co., Inc.	Docket No. G-9, Sub 781	Return on Equity
Duke Energy Carolinas, LLC	07/20	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 1214	Return on Equity
Duke Energy Progress, LLC	07/20	Duke Energy Progress, LLC	Docket No. E-2, Sub 1219	Return on Equity
Aqua North Carolina, Inc.	12/19	Aqua North Carolina, Inc.	Docket No. W-218 Sub 526	Rate of Return
Carolina Water Service, Inc.	06/19	Carolina Water Service, Inc.	Docket No. W-354 Sub 364	Rate of Return
Carolina Water Service, Inc.	09/18	Carolina Water Service, Inc.	Docket No. W-354 Sub 360	Rate of Return
Aqua North Carolina, Inc.	07/18	Aqua North Carolina, Inc.	Docket No. W-218 Sub 497	Rate of Return
North Dakota Public Service Commission				
Northern States Power Company	11/20	Northern States Power Company	Case No. PU-20-441	Rate of Return
Public Utilities Commission of Ohio				
Aqua Ohio, Inc.	05/16	Aqua Ohio, Inc.	Docket No. 16-0907-WW-AIR	Rate of Return
Pennsylvania Public Utility Commission				
Vicinity Energy Philadelphia, Inc.	04/21	Vicinity Energy Philadelphia, Inc.	Docket No. R-2021-3024060	Rate of Return
Delaware County Regional Water Control Authority	02/20	Delaware County Regional Water Control Authority	Docket No. A-2019-3015173	Valuation
Valley Energy, Inc.	07/19	C&T Enterprises	Docket No. R-2019-3008209	Rate of Return
Wellsboro Electric Company	07/19	C&T Enterprises	Docket No. R-2019-3008208	Rate of Return
Citizens' Electric Company of Lewisburg	07/19	C&T Enterprises	Docket No. R-2019-3008212	Rate of Return
Steelton Borough Authority	01/19	Steelton Borough Authority	Docket No. A-2019-3006880	Valuation
Mahoning Township, PA	08/18	Mahoning Township, PA	Docket No. A-2018-3003519	Valuation

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
SUEZ Water Pennsylvania Inc.	04/18	SUEZ Water Pennsylvania Inc.	Docket No. R-2018-000834	Rate of Return
Columbia Water Company	09/17	Columbia Water Company	Docket No. R-2017-2598203	Rate of Return
Veolia Energy Philadelphia, Inc.	06/17	Veolia Energy Philadelphia, Inc.	Docket No. R-2017-2593142	Rate of Return
Emporium Water Company	07/14	Emporium Water Company	Docket No. R-2014-2402324	Rate of Return
Columbia Water Company	07/13	Columbia Water Company	Docket No. R-2013-2360798	Rate of Return
Penn Estates Utilities, Inc.	12/11	Penn Estates, Utilities, Inc.	Docket No. R-2011-2255159	Capital Structure / Long-Term Debt Cost Rate
South Carolina Public Service Commission				
Blue Granite Water Co.	12/19	Blue Granite Water Company	Docket No. 2019-292-WS	Rate of Return
Carolina Water Service, Inc.	02/18	Carolina Water Service, Inc.	Docket No. 2017-292-WS	Rate of Return
Carolina Water Service, Inc.	06/15	Carolina Water Service, Inc.	Docket No. 2015-199-WS	Rate of Return
Carolina Water Service, Inc.	11/13	Carolina Water Service, Inc.	Docket No. 2013-275-WS	Rate of Return
United Utility Companies, Inc.	09/13	United Utility Companies, Inc.	Docket No. 2013-199-WS	Rate of Return
Utility Services of South Carolina, Inc.	09/13	Utility Services of South Carolina, Inc.	Docket No. 2013-201-WS	Rate of Return
Tega Cay Water Services, Inc.	11/12	Tega Cay Water Services, Inc.	Docket No. 2012-177-WS	Capital Structure
Tennessee Public Utility Commission				
Piedmont Natural Gas Company	07/20	Piedmont Natural Gas Company	Docket No. 20-00086	Return on Equity
Public Utility Commission of Texas				
Southwestern Public Service Company	02/21	Southwestern Public Service Company	Docket No. 51802	Return on Equity
Southwestern Electric Power Company	10/20	Southwestern Electric Power Company	Docket No. 51415	Rate of Return
Virginia State Corporation Commission				
Virginia Natural Gas, Inc.	04/21	Virginia Natural Gas, Inc.	PUR-2020-00095	Return on Equity
Massanutten Public Service Corporation	12/20	Massanutten Public Service Corporation	PUE-2020-00039	Return on Equity
Aqua Virginia, Inc.	07/20	Aqua Virginia, Inc.	PUR-2020-00106	Rate of Return
WGL Holdings, Inc.	07/18	Washington Gas Light Company	PUR-2018-00080	Rate of Return
Atmos Energy Corporation	05/18	Atmos Energy Corporation	PUR-2018-00014	Rate of Return
Aqua Virginia, Inc.	07/17	Aqua Virginia, Inc.	PUR-2017-00082	Rate of Return
Massanutten Public Service Corp.	08/14	Massanutten Public Service Corp.	PUE-2014-00035	Rate of Return / Rate Design

Exhibit DWD-1
Schedule DWD-1.1

Atmos Energy Corporation
Recommended Capital Structure and Cost Rates
for Ratemaking Purposes

Type Of Capital	Ratios (1)	Cost Rate		Weighted Cost Rate
Long-Term Debt	42.77%	4.00%	(1)	1.71%
Short-Term Debt	0.18%	25.17%	(1)	0.05%
Common Equity	57.05%	10.35%	(2)	5.90%
Total	100.00%			7.66%

Notes:

(1) Company-provided.
(2) From page 2 of this Schedule.

Exhibit DWD-1
Schedule DWD-1.2

Atmos Energy Corporation
Brief Summary of Common Equity Cost Rate

Line No.	Principal Methods	Proxy Group of Seven Natural Gas Distribution Companies
1.	Discounted Cash Flow Model (DCF) (1)	9.44%
2.	Risk Premium Model (RPM) (2)	10.96%
3.	Capital Asset Pricing Model (CAPM) (3)	11.75%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	12.42%
5.	Range of Common Equity Model Results	9.44% - 12.42%
6.	Size Risk Adjustment (5)	0.20%
7.	Credit Risk Adjustment (6)	-0.10%
8.	Flotation Cost Adjustment (7)	0.04%
9.	Indicated Range of Common Equity Cost Rates after Adjustment	9.58% - 12.66%
10.	Recommended Common Equity Cost Rate	10.35%

Notes:
(1) From page 1 of Schedule DWD-2.
(2) From page 1 of Schedule DWD-3.
(3) From page 1 of Schedule DWD-4.
(4) From page 1 of Schedule DWD-6.
(5) Adjustment to reflect the Company's greater business risk due to its smaller size relative to the Utility Proxy Group as detailed in Mr. D'Ascendis' direct testimony.
(6) Company-specific risk adjustment to reflect Atmos Energy's lower risk due to a higher long-term issuer rating relative to the proxy group as detailed in Mr. D'Ascendis' direct testimony.
(7) From page 1 of Schedule DWD-8.

Exhibit DWD-1
Schedule DWD-2.1

Atmos Energy Corporation
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the Proxy Group of Seven Natural Gas Distribution Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Seven Natural Gas Distribution Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS	Bloomberg's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
Atmos Energy Corporation	2.54 %	7.00 %	7.30 %	7.10 %	7.17 %	7.14 %	2.63 %	9.77 %
New Jersey Resources Corporation	3.19	2.00	7.10	7.33	6.00	5.61	3.28	8.89
Northwest Natural Holding Company	3.57	5.50	3.90	4.42	3.80	4.41	3.65	8.06
ONE Gas, Inc.	3.02	6.50	5.00	5.67	5.00	5.54	3.10	8.64
South Jersey Industries, Inc.	4.84	11.50	5.40	4.93	4.80	6.66	5.00	11.66
Southwest Gas Holdings, Inc.	3.45	9.00	5.50	4.50	4.00	5.75	3.55	9.30
Spire Inc.	3.49	10.00	5.50	5.33	7.31	7.04	3.61	10.65
							Average	9.57 %
							Median	9.30 %
							Average of Mean and Median	9.44 %

NA= Not Available
NMF= Not Meaningful Figure

Notes:

(1) Indicated dividend at 05/28/2021 divided by the average closing price of the last 60 trading days ending 05/28/2021 for each company.

(2) From pages 2 through 8 of this Schedule.

(3) Average of columns 2 through 5 excluding negative growth rates.

(4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 6) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for Atmos Energy Corporation, 2.54% x (1+(1/2 x 7.14%)) = 2.63%.

(5) Column 6 + column 7.

Source of Information:

Value Line Investment Survey
www.zacks.com Downloaded on 05/28/2021
www.yahoo.com Downloaded on 05/28/2021
Bloomberg Professional Services

Exhibit DWD-1
Schedule DWD-3.1

Atmos Energy Corporation
Summary of Risk Premium Models for the
Proxy Group of Seven Natural Gas Distribution Companies

	Proxy Group of Seven Natural Gas Distribution Companies	
Predictive Risk Premium Model (PRPM) (1)	11.43	%
Risk Premium Using an Adjusted Total Market Approach (2)	10.49	%
Average	10.96	%

Notes:
- (1) From page 2 of this Schedule.
- (2) From page 3 of this Schedule.

Atmos Energy Corporation
Indicated ROE
Derived by the Predictive Risk Premium Model (1)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Seven Natural Gas Distribution Companies	LT Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
Atmos Energy Corporation	0.33%	0.48%	0.41%	2.2565	11.58%	2.88%	14.46%
New Jersey Resources Corporation	0.38%	0.34%	0.36%	2.0814	9.43%	2.88%	12.31%
Northwest Natural Holding Company	0.32%	0.38%	0.35%	1.5413	6.68%	2.88%	9.56%
ONE Gas, Inc.	0.30%	0.43%	0.37%	4.0633	19.39%	2.88%	NMF
South Jersey Industries, Inc.	0.39%	0.69%	0.54%	1.6346	11.03%	2.88%	13.91%
Southwest Gas Holdings, Inc.	0.43%	0.38%	0.41%	1.3628	6.84%	2.88%	9.72%
Spire Inc.	0.71%	0.52%	0.61%	0.9445	7.18%	2.88%	10.06%
						Average	11.67%
						Median	11.19%
						Average of Mean and Median	11.43%

Notes:

(1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Service.

(2) Given current market conditions, I recommend using average of the the long-term average predicted variance and the spot variance.

(3) $(1+(\text{Column [3]} * \text{Column [4]})^{\wedge 12}) - 1$.

(4) From note 2 on page 2 of Schedule DWD-4.

(5) Column [5] + Column [6].

Atmos Energy Corporation
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Seven Natural Gas Distribution Companies	
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	3.56	%
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A2 Rated Public Utility Bonds	0.39	(2)
3.	Adjusted Prospective Yield on A2 Rated Public Utility Bonds	3.95	%
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.04	(3)
5.	Adjusted Prospective Bond Yield	3.99	%
6.	Equity Risk Premium (4)	6.50	
7.	Risk Premium Derived Common Equity Cost Rate	10.49	%

Notes: (1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 10 and 11 of this Schedule).

(2) The average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds of 0.39% from page 4 of this Schedule.

(3) Adjustment to reflect the A2/A3 Moody's LT issuer rating of the Utility Proxy Group as shown on page 5 of this Schedule. The 0.04% upward adjustment is derived by taking 1/6 of the spread between A2 and Baa2 Public Utility Bonds (1/6 * 0.26% = 0.04%) as derived from page 4 of this Schedule.

(4) From page 7 of this Schedule.

Exhibit DWD-1
Schedule DWD-3.4

Atmos Energy Corporation
Interest Rates and Bond Spreads for Moody's Corporate and Public Utility Bonds

Selected Bond Yields - Moody's

	[1] Aaa Rated Corporate Bond		[2] Aa2 Rated Public Utility Bond		[3] A2 Rated Public Utility Bond		[4] Baa2 Rated Public Utility Bond	
May-2021	2.96	%	3.17	%	3.33	%	3.58	%
Apr-2021	2.90		3.13		3.30		3.57	
Mar-2021	3.04		3.27		3.44		3.72	
Average	2.97	%	3.19	%	3.36	%	3.62	%

Selected Bond Spreads

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:	0.39	% (1)
Baa2 Rated Public Utility Bonds Over A2 Rated Public Utility Bonds:	0.26	% (2)
A2 Rated Public Utility Bonds Over Aa2 Rated Public Utility Bonds:	0.17	% (3)

Notes:
(1) Column [3] - Column [1].
(2) Column [4] - Column [3].
(3) Column [3] - Column [2].

Source of Information:
Bloomberg Professional Service

Exhibit DWD-1
Schedule DWD-3.5

Atmos Energy Corporation
Comparison of Long-Term Issuer Ratings for
Proxy Group of Seven Natural Gas Distribution Companies

Proxy Group of Seven Natural Gas Distribution Companies	Moody's Long-Term Issuer Rating May 2021		Standard & Poor's Long-Term Issuer Rating May 2021	
	Long-Term Issuer Rating (1)	Numerical Weighting (2)	Long-Term Issuer Rating (1)	Numerical Weighting (2)
Atmos Energy Corporation	A1	5.0	A-	7.0
New Jersey Resources Corporation	A1	5.0	NR	- -
Northwest Natural Holding Company	Baa1	8.0	A+	5.0
ONE Gas, Inc.	A3	7.0	BBB+	8.0
South Jersey Industries, Inc.	A3	7.0	BBB	9.0
Southwest Gas Holdings, Inc.	Baa1	8.0	A-	7.0
Spire Inc.	A1/A2	5.5	A-	7.0
Average	A2/A3	6.5	A-	7.2

Notes:

(1) Ratings are that of the average of each company's utility operating subsidiaries.
(2) From page 6 of this Schedule.

Source Information: Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

Exhibit DWD-1
Schedule DWD-3.6

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

Exhibit DWD-1
Schedule DWD-3.7

Atmos Energy Corporation
Judgment of Equity Risk Premium for
Proxy Group of Seven Natural Gas Distribution Companies

Line No.		Proxy Group of Seven Natural Gas Distribution Companies
1.	Calculated equity risk premium based on the total market using the beta approach (1)	8.03 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	5.84
3.	Predicted Equity Risk Premium Based on Regression Analysis of 800 Fully-Litigated Natural Gas Utility Rate Cases	5.64
4.	Average equity risk premium	6.50 %

Notes: (1) From page 8 of this Schedule.
(2) From page 12 of this Schedule.
(3) From page 13 of this Schedule.

Exhibit DWD-1
Schedule DWD-3.8-3.9

Atmos Energy Corporation
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Seven Natural Gas Distribution Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Seven Natural Gas Distribution Companies	
	Ibbotson-Based Equity Risk Premiums:		
1.	Ibbotson Equity Risk Premium (1)	5.92	%
2.	Regression on Ibbotson Risk Premium Data (2)	8.69	
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.02	
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	4.60	
5.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	10.76	
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	12.78	
7.	Conclusion of Equity Risk Premium	8.63	%
8.	Adjusted Beta (7)	0.93	
9.	Forecasted Equity Risk Premium	8.03	%

Notes provided on page 9 of this Schedule.

Exhibit DWD-1
Schedule DWD-3.8-3.9

Atmos Energy Corporation
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Seven Natural Gas Distribution Companies

Notes:

(1) Based on the arithmetic mean historical monthly returns on large company common stocks from Duff & Phelps 2021 SBBI® Yearbook minus the arithmetic mean monthly yield of Moody's average Aaa and Aa corporate bonds from 1928-2020.

(2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa rated corporate bond yields from 1928-2020 referenced in Note 1 above.

(3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa corporate monthly bond yields, from January 1928 through March 2021.

(4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the average consensus forecast of Aaa corporate bonds of 3.56% (from page 3 of this Schedule) from the projected 3-5 year total annual market return of 8.16% (described fully in note 1 on page 2 of Schedule DWD-4).

(5) Using data from Value Line for the S&P 500, an expected total return of 14.32% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.56% results in an expected equity risk premium of 10.76%.

(6) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 16.34% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.56% results in an expected equity risk premium of 12.78%.

(7) Average of mean and median beta from Schedule DWD-4.

Sources of Information:

Stocks, Bonds, Bills, and Inflation - 2021 SBBI Yearbook, John Wiley & Sons, Inc.
Industrial Manual and Mergent Bond Record Monthly Update.
Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2021
Bloomberg Professional Service

Exhibit DWD-1
Schedule DWD-3.12

Atmos Energy Corporation
Derivation of Mean Equity Risk Premium Based Studies Using Holding Period Returns and Projected Market Appreciation of the S&P Utility Index

Line No.		Implied Equity Risk Premium	
	Equity Risk Premium based on S&P Utility Index Holding Period Returns (1):		
1.	Historical Equity Risk Premium	4.16	%
2.	Regression of Historical Equity Risk Premium (2)	6.37	
3.	Forecasted Equity Risk Premium Based on PRPM (3)	5.41	
4.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Value Line Data) (4)	7.45	
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	5.82	
6.	Average Equity Risk Premium (6)	5.84	%

Notes:

(1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2020. Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.

(2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A2 rated public utility bond yields from 1928 - 2020 referenced in note 1 above.

(3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A2 rated public utility bonds from January 1928 - May 2021.

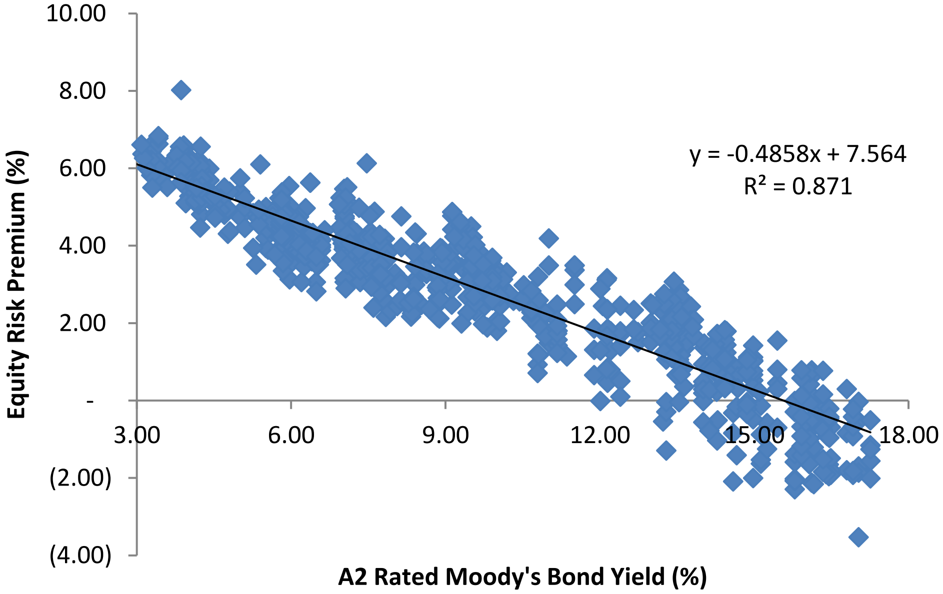
(4) Using data from Value Line for the S&P Utilities Index, an expected return of 11.40% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A2 rated public utility bond yield of 3.95%, calculated on line 3 of page 3 of this Schedule results in an equity risk premium of 7.45%. (11.40% - 3.95% = 7.45%)

(5) Using data from Bloomberg Professional Service for the S&P Utilities Index, an expected return of 9.77% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A2 rated public utility bond yield of 3.95%, calculated on line 3 of page 3 of this Schedule results in an equity risk premium of 5.82%. (9.77% - 3.95% = 5.82%)

(6) Average of lines 1 through 5.

Exhibit DWD-1
Schedule DWD-3.13

Atmos Energy Corporation
Prediction of Equity Risk Premiums Relative to Moody's A2 Rated Utility Bond Yields



Constant		Slope	Prospective A2 Rated Utility Bond (1)		Prospective Equity Risk Premium	
7.564001	%	-0.48585	3.95	%	5.64	%

Notes:
(1) From line 3 of page 3 of this Schedule.

Source of Information:
Regulatory Research Associates
Bloomberg Professional Services

Exhibit DWD-1
Schedule DWD-4.1

Atmos Energy Corporation
Indicated Common Equity Cost Rate Through Use of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

Proxy Group of Seven Natural Gas Distribution Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Adjusted Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (2)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (3)
Atmos Energy Corporation	0.80	0.91	0.86	9.46 %	2.88 %	11.02 %	11.35 %	11.18 %
New Jersey Resources Corporation	1.00	0.97	0.98	9.46	2.88	12.15	12.20	12.17
Northwest Natural Holding Company	0.85	0.85	0.85	9.46	2.88	10.92	11.28	11.10
ONE Gas, Inc.	0.80	1.00	0.90	9.46	2.88	11.39	11.63	11.51
South Jersey Industries, Inc.	1.05	0.98	1.02	9.46	2.88	12.53	12.48	12.51
Southwest Gas Holdings, Inc.	0.95	1.09	1.02	9.46	2.88	12.53	12.48	12.51
Spire Inc.	0.85	1.00	0.92	9.46	2.88	11.58	11.77	11.68
Mean			0.94			11.73 %	11.88 %	11.81 %
Median			0.92			11.58 %	11.77 %	11.68 %
Average of Mean and Median			0.93			11.66 %	11.83 %	11.75 %

Notes on page 2 of this Schedule.

Exhibit DWD-1
Schedule DWD-4.2

Atmos Energy Corporation
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

(1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

Historical Data MRP Estimates:

Measure 1: Ibbotson Arithmetic Mean MRP (1926-2020)

Arithmetic Mean Monthly Returns for Large Stocks 1926-2020:	12.20	%
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.05	
MRP based on Ibbotson Historical Data:	7.15	%

Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2020)	9.39	%
Measure 3: Application of the PRPM to Ibbotson Historical Data: (January 1926 - May 2021)	10.04	%

Value Line MRP Estimates:

Measure 4: Value Line Projected MRP (Thirteen weeks ending May 28, 2021)

Total projected return on the market 3-5 years hence*:	8.16	%
Projected Risk-Free Rate (see note 2):	2.88	
MRP based on Value Line Summary & Index:	5.28	%

*Forcasted 3-5 year capital appreciation plus expected dividend yield

Measure 5: Value Line Projected Return on the Market based on the S&P 500

Total return on the Market based on the S&P 500:	14.32	%
Projected Risk-Free Rate (see note 2):	2.88	
MRP based on Value Line data	11.44	%

Measure 6: Bloomberg Projected MRP

Total return on the Market based on the S&P 500:	16.34	%
Projected Risk-Free Rate (see note 2):	2.88	
MRP based on Bloomberg data	13.46	%
Average of Value Line, Ibbotson, and Bloomberg MRP:	9.46	%

(2) For reasons explained in the direct testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See pages 10 and 11 of Schedule DWD-3.) The projection of the risk-free rate is illustrated below:

Second Quarter 2021	2.40	%
Third Quarter 2021	2.50	
Fourth Quarter 2021	2.60	
First Quarter 2022	2.60	
Second Quarter 2022	2.70	
Third Quarter 2022	2.80	
2023-2027	3.50	
2028-2032	3.90	
	2.88	%

(3) Average of Column 6 and Column 7.

Sources of Information:

Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2021
Stocks, Bonds, Bills, and Inflation - 2021 SBBI Yearbook, John Wiley & Sons, Inc.
Bloomberg Professional Services

Exhibit DWD-1
Schedule DWD-5.2

Atmos Energy Corporation
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
Proxy Group of Seven Natural Gas Distribution Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
Atmos Energy Corporation	0.80	0.66	2.7453	0.0685
New Jersey Resources Corporation	0.95	0.92	3.0205	0.0754
Northwest Natural Holding Company	0.80	0.69	3.1454	0.0785
ONE Gas, Inc.	0.80	0.67	2.7077	0.0676
South Jersey Industries, Inc.	1.05	1.00	3.4767	0.0868
Southwest Gas Holdings, Inc.	0.95	0.88	3.0244	0.0755
Spire Inc.	0.85	0.71	2.8287	0.0706
Average	0.89	0.79	2.9927	0.0747

Beta Range (+/- 2 std. Devs. of Beta)	0.64	0.94
2 std. Devs. of Beta	0.15	
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.7297	3.2557
Std. dev. of the Res. Std. Err.	0.1315	
2 std. devs. of the Res. Std. Err.	0.2630	

Source of Information: Valueline Proprietary Database, March 2021

Exhibit DWD-1
Schedule DWD-5.3

Atmos Energy Corporation
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution Companies

	[1]	[2]	[3]	[4]
Proxy Group of Forty-Eight Non-Price Regulated Companies	VL Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
Apple Inc.	0.90	0.81	3.1746	0.0792
Abbott Labs.	0.95	0.88	2.7401	0.0684
Assurant Inc.	0.90	0.84	2.9537	0.0737
ANSYS, Inc.	0.85	0.74	2.8841	0.0720
Booz Allen Hamilton	0.90	0.82	3.0468	0.0760
Becton, Dickinson	0.80	0.66	2.8952	0.0722
Brown-Forman 'B'	0.90	0.77	2.7453	0.0685
Broadridge Fin'l	0.85	0.70	2.7332	0.0682
Brady Corp.	1.00	0.93	3.0007	0.0749
CACI Int'l	0.95	0.86	3.1684	0.0791
Casey's Gen'l Stores	0.90	0.78	3.2522	0.0812
Cadence Design Sys.	0.90	0.79	3.0338	0.0757
Cerner Corp.	0.90	0.84	2.7309	0.0681
CSW Industrials	0.90	0.81	2.8884	0.0721
Quest Diagnostics	0.85	0.75	2.7411	0.0684
Lauder (Estee)	0.95	0.85	2.8216	0.0704
Exponent, Inc.	0.90	0.79	2.9131	0.0727
Fastenal Co.	0.90	0.85	3.2203	0.0804
Gentex Corp.	0.95	0.91	2.7546	0.0687
Int'l Flavors & Frag	0.95	0.87	3.2238	0.0804
Ingredion Inc.	0.90	0.78	2.8793	0.0718
Iron Mountain	0.90	0.82	3.0897	0.0771
Hunt (J.B.)	0.95	0.86	2.8344	0.0707
J&J Snack Foods	0.90	0.84	2.9208	0.0729
Henry (Jack) & Assoc	0.85	0.71	2.7734	0.0692
ManTech Int'l 'A'	0.85	0.77	3.0653	0.0765
McCormick & Co.	0.80	0.66	2.7887	0.0696
Altria Group	0.90	0.83	2.9215	0.0729
MSA Safety	1.00	0.94	3.0076	0.0750
MSCI Inc.	0.95	0.87	2.9662	0.0740
Motorola Solutions	0.90	0.80	2.7926	0.0697
Vail Resorts	0.95	0.88	3.1939	0.0797
Maxim Integrated	0.95	0.87	2.9404	0.0734
Northrop Grumman	0.85	0.71	2.9032	0.0724
Old Dominion Freight	0.90	0.83	3.0708	0.0766
PerkinElmer Inc.	0.95	0.86	2.8896	0.0721
Philip Morris Int'l	0.95	0.88	3.2481	0.0811
Pool Corp.	0.85	0.75	3.2001	0.0799
Post Holdings	0.95	0.86	3.0105	0.0751
RLI Corp.	0.80	0.64	2.9883	0.0746
Rollins, Inc.	0.85	0.73	2.9697	0.0741
Selective Ins. Group	0.85	0.77	3.0004	0.0749
Sirius XM Holdings	0.95	0.91	2.7995	0.0699
Bio-Techne Corp.	0.80	0.67	3.2475	0.0810
Tetra Tech	0.90	0.84	3.0245	0.0755
Waters Corp.	0.95	0.86	2.7531	0.0687
West Pharmac. Svcs.	0.85	0.70	3.1887	0.0796
Western Union	0.80	0.67	2.7346	0.0682
Average	0.90	0.80	2.9609	0.0739
Proxy Group of Seven Natural Gas Distribution Companies	0.89	0.79	2.9927	0.0747

Source of Information: Valueline Proprietary Database, March 2021

Exhibit DWD-1
Schedule DWD-6.1

Atmos Energy Corporation
Summary of Cost of Equity Models Applied to Proxy Group of Forty-Eight Non-Price Regulated Companies Comparable in Total Risk to the Proxy Group of Seven Natural Gas Distribution Companies

Principal Methods	Proxy Group of Forty-Eight Non-Price Regulated Companies
Discounted Cash Flow Model (DCF) (1)	12.83 %
Risk Premium Model (RPM) (2)	12.49
Capital Asset Pricing Model (CAPM) (3)	11.69
	12.34 %
	12.49 %
	12.42 %

Notes:

(1) From page 2 of this Schedule.
(2) From page 3 of this Schedule.
(3) From page 6 of this Schedule.

Exhibit DWD-1
Schedule DWD-6.2

Atmos Energy Corporation
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the Proxy Group of Seven Natural Gas Distribution Companies

Proxy Group of Forty-Eight Non-Price Regulated Companies	[1] Average Dividend Yield	[2] Value Line Projected Five Year Growth in EPS	[3] Zack's Five Year Projected Growth Rate in EPS	[4] Bloomberg's Five Year Projected Growth Rate in EPS	[5] Yahoo! Finance Projected Five Year Growth in EPS	[6] Average Projected Five Year Growth Rate in EPS	[7] Adjusted Dividend Yield	[8] Indicated Common Equity Cost Rate (1)
Apple Inc.	0.69 %	14.50 %	12.50 %	12.10 %	17.93 %	14.26 %	0.74 %	15.00 %
Abbott Labs.	1.51	11.50	13.80	13.63	16.49	13.86	1.61	15.47
Assurant Inc.	1.76	11.50	17.50	17.50	17.50	16.00	1.90	17.90
ANSYS, Inc.	-	8.00	12.30	12.58	10.74	10.90	-	NA
Booz Allen Hamilton	1.80	10.50	10.60	13.00	9.67	10.94	1.90	12.84
Becton, Dickinson	1.35	7.50	8.90	8.30	11.85	9.14	1.41	10.55
Brown-Forman 'B'	0.97	11.00	NA	5.39	7.40	7.93	1.01	8.94
Broadridge Fin'l	1.48	8.50	NA	12.30	11.60	10.80	1.56	12.36
Brady Corp.	1.59	7.50	7.00	9.00	7.00	7.63	1.65	9.28
CACI Int'l	-	13.50	13.10	12.06	13.68	13.08	-	NA
Casey's Gen'l Stores	0.63	8.00	NA	15.81	7.85	10.55	0.66	11.21
Cadence Design Sys.	-	9.50	14.40	11.60	14.40	12.48	-	NA
Cerner Corp.	1.18	8.00	12.30	10.46	11.63	10.60	1.24	11.84
CSW Industrials	0.45	8.50	NA	12.00	12.00	10.83	0.47	11.30
Quest Diagnostics	1.91	10.00	26.50	(5.40)	3.26	13.25	2.04	15.29
Lauder (Estee)	0.71	11.00	10.70	18.20	27.18	16.77	0.77	17.54
Exponent, Inc.	0.83	12.50	NA	13.30	15.00	13.60	0.89	14.49
Fastenal Co.	2.21	8.00	9.00	8.70	7.95	8.41	2.30	10.71
Gentex Corp.	1.35	10.50	10.10	13.15	15.80	12.39	1.43	13.82
Int'l Flavors & Frag	2.20	7.50	9.80	21.48	7.72	11.63	2.33	13.96
Ingredion Inc.	2.76	7.50	NA	11.00	1.90	6.80	2.85	9.65
Iron Mountain	6.32	11.50	1.70	0.66	1.70	3.89	6.44	10.33
Hunt (J.B.)	0.71	8.00	15.00	15.00	21.53	14.88	0.76	15.64
J&J Snack Foods	1.55	10.00	NA	NA	6.00	8.00	1.61	9.61
Henry (Jack) & Assoc	1.18	9.00	10.90	12.47	10.64	10.75	1.24	11.99
ManTech Int'l 'A'	1.79	9.00	5.10	5.53	3.87	5.88	1.84	7.72
McCormick & Co.	1.53	5.50	6.70	5.87	6.00	6.02	1.58	7.60
Altria Group	6.94	6.00	4.00	4.35	4.35	4.68	7.10	11.78
MSA Safety	1.10	6.50	NA	9.00	18.00	11.17	1.16	12.33
MSCI Inc.	0.69	16.00	NA	15.00	15.31	15.44	0.74	16.18
Motorola Solutions	1.49	7.00	9.00	12.20	7.37	8.89	1.56	10.45
Vail Resorts	-	9.50	NA	87.08	72.95	56.51	-	NA
Maxim Integrated	-	8.00	10.00	11.95	21.91	12.97	-	NA
Northrop Grumman	1.84	7.00	NA	5.67	5.77	6.15	1.90	8.05
Old Dominion Freight	0.32	9.00	17.20	18.98	18.93	16.03	0.35	16.38
PerkinElmer Inc.	0.21	11.00	37.90	5.66	37.90	23.11	0.23	23.34
Philip Morris Int'l	5.19	6.50	8.70	10.75	12.75	9.67	5.44	15.11
Pool Corp.	0.83	15.00	NA	NA	17.00	16.00	0.90	16.90
Post Holdings	-	11.00	NA	20.30	31.20	20.83	-	NA
RLI Corp.	0.89	12.50	NA	NA	9.80	11.15	0.94	12.09
Rollins, Inc.	0.91	11.50	NA	NA	8.20	9.85	0.95	10.80
Selective Ins. Group	1.33	8.50	9.50	9.51	5.10	8.15	1.38	9.53
Sirius XM Holdings	0.96	35.50	12.70	40.32	10.10	24.66	1.08	25.74
Bio-Techne Corp.	0.32	12.50	14.00	19.03	15.00	15.13	0.34	15.47
Tetra Tech	0.62	13.50	15.00	13.85	15.00	14.34	0.66	15.00
Waters Corp.	-	6.00	7.10	8.19	7.77	7.26	-	NA
West Pharmac. Svcs.	0.22	17.00	25.80	18.55	25.80	21.79	0.24	22.03
Western Union	3.74	6.00	NA	4.57	9.19	6.59	3.86	10.45
							Mean	13.33 %
							Median	12.33 %
							Average of Mean and Median	12.83 %

NA= Not Available

(1) The application of the DCF model to the domestic, non-price regluated comparable risk companies is identical to the application of the DCF to the Utility Proxy Group. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of May 28, 2021. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, Bloomberg Professional Services, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information: Value Line Investment Survey
www.zacks.com Downloaded on 05/28/2021
www.yahoo.com Downloaded on 05/28/2021
Bloomberg Professional Services

Exhibit DWD-1
Schedule DWD-6.3

Atmos Energy Corporation
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Forty-Eight Non-Price Regulated Companies	
1.	Prospective Yield on Baa2 Rated Corporate Bonds (1)	4.46	%
2.	Equity Risk Premium (2)	8.03	
3.	Risk Premium Derived Common Equity Cost Rate	12.49	%

Notes: (1) Average forecast of Baa2 corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated June 1, 2021 (see pages 10 and 11 of Schedule DWD-3). The estimates are detailed below.

Second Quarter 2021	3.80	%
Third Quarter 2021	4.00	
Fourth Quarter 2021	4.10	
First Quarter 2022	4.20	
Second Quarter 2022	4.20	
Third Quarter 2022	4.30	
2023-2027	5.30	
2028-2032	5.80	
Average	4.46	%

(2) From page 5 of this Schedule.

Exhibit DWD-1
Schedule DWD-6.4

Atmos Energy Corporation
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Forty-Eight Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Seven Natural Gas Distribution Companies

	Moody's Long-Term Issuer Rating May 2021		Standard & Poor's Long-Term Issuer Rating May 2021	
Proxy Group of Forty-Eight Non-Price Regulated Companies	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Apple Inc.	Aa1	2.0	AA+	2.0
Abbott Labs.	A2	6.0	A+	5.0
Assurant Inc.	Baa3	10.0	BBB	9.0
ANSYS, Inc.	NA	--	NA	--
Booz Allen Hamilton	NA	--	NA	--
Becton, Dickinson	Baa3	10.0	BBB	9.0
Brown-Forman 'B'	A1	5.0	A-	7.0
Broadridge Fin'l	Baa1	8.0	BBB+	8.0
Brady Corp.	NA	--	NA	--
CACI Int'l	NA	--	BB+	11.0
Casey's Gen'l Stores	NA	--	NA	--
Cadence Design Sys.	Baa2	9.0	BBB+	8.0
Cerner Corp.	NA	--	NA	--
CSW Industrials	NA	--	NA	--
Quest Diagnostics	Baa2	9.0	BBB+	8.0
Lauder (Estee)	A1	5.0	A+	5.0
Exponent, Inc.	NA	--	NA	--
Fastenal Co.	NA	--	NA	--
Gentex Corp.	NA	--	NA	--
Int'l Flavors & Frag	Baa3	10.0	BBB	9.0
Ingredion Inc.	Baa1	8.0	BBB	9.0
Iron Mountain	Ba3	13.0	BB-	13.0
Hunt (J.B.)	Baa1	8.0	BBB+	8.0
J&J Snack Foods	NA	--	NA	--
Henry (Jack) & Assoc	NA	--	NA	--
ManTech Int'l 'A'	WR	--	BB+	11.0
McCormick & Co.	Baa2	9.0	BBB	9.0
Altria Group	A3	7.0	BBB	9.0
MSA Safety	NA	--	NA	--
MSCI Inc.	Ba1	11.0	BB+	11.0
Motorola Solutions	Baa3	10.0	BBB-	10.0
Vail Resorts	B2	15.0	BB	12.0
Maxim Integrated	Baa1	8.0	BBB+	8.0
Northrop Grumman	Baa2	9.0	BBB+	8.0
Old Dominion Freight	NA	--	NA	--
PerkinElmer Inc.	Baa3	10.0	BBB	9.0
Philip Morris Int'l	A2	6.0	A	6.0
Pool Corp.	NA	--	NA	--
Post Holdings	B2	15.0	B+	14.0
RLI Corp.	Baa2	9.0	BBB	9.0
Rollins, Inc.	NA	--	NA	--
Selective Ins. Group	Baa2	9.0	BBB	9.0
Sirius XM Holdings	NA	--	BB	12.0
Bio-Techne Corp.	NA	--	NA	--
Tetra Tech	NA	--	NA	--
Waters Corp.	NA	--	NA	--
West Pharmac. Svcs.	NA	--	NA	--
Western Union	Baa2	9.0	BBB	9.0
Average	Baa2	8.8	BBB	8.9

Notes:
(1) From page 6 of Schedule DWD-3.

Source of Information:
Bloomberg Professional Services

Atmos Energy Corporation
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Proxy Group of Forty-Eight Non-Price Regulated Companies of Comparable risk to the Proxy Group of Seven Natural Gas Distribution Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Forty-Eight Non-Price Regulated Companies	
	Ibbotson-Based Equity Risk Premiums:		
1.	Ibbotson Equity Risk Premium (1)	5.92	%
2.	Regression on Ibbotson Risk Premium Data (2)	8.69	
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.02	
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	4.60	
5	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	10.76	
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	12.78	
7.	Conclusion of Equity Risk Premium	8.63	%
8.	Adjusted Beta (7)	0.93	
9.	Forecasted Equity Risk Premium	8.03	%

Notes:

(1) From note 1 of page 9 of Schedule DWD-3.
(2) From note 2 of page 9 of Schedule DWD-3.
(3) From note 3 of page 9 of Schedule DWD-3.
(4) From note 4 of page 9 of Schedule DWD-3.
(5) From note 5 of page 9 of Schedule DWD-3.
(6) From note 6 of page 9 of Schedule DWD-3.
(7) Average of mean and median beta from page 6 of this Schedule.

Sources of Information:

Stocks, Bonds, Bills, and Inflation - 2021 SBBI Yearbook, John Wiley & Sons, Inc.
Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2021
Bloomberg Professional Services

Exhibit DWD-1
Schedule DWD-6.6

Atmos Energy Corporation
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the Proxy Group of Seven Natural Gas Distribution Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Forty-Eight Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Apple Inc.	0.90	1.01	0.96	9.46 %	2.88 %	11.96 %	12.06 %	12.01 %
Abbott Labs.	0.90	0.85	0.88	9.46	2.88	11.20	11.49	11.35
Assurant Inc.	0.90	1.00	0.95	9.46	2.88	11.87	11.99	11.93
ANSYS, Inc.	0.85	0.97	0.91	9.46	2.88	11.49	11.70	11.59
Booz Allen Hamilton	0.90	0.92	0.91	9.46	2.88	11.49	11.70	11.59
Becton, Dickinson	0.80	0.58	0.69	9.46	2.88	9.41	10.14	9.77
Brown-Forman 'B'	0.90	0.97	0.94	9.46	2.88	11.77	11.91	11.84
Broadridge Fin'l	0.80	0.84	0.82	9.46	2.88	10.64	11.06	10.85
Brady Corp.	1.00	1.05	1.02	9.46	2.88	12.53	12.48	12.51
CACI Int'l	0.95	1.01	0.98	9.46	2.88	12.15	12.20	12.17
Casey's Gen'l Stores	0.90	0.91	0.91	9.46	2.88	11.49	11.70	11.59
Cadence Design Sys.	0.90	0.98	0.94	9.46	2.88	11.77	11.91	11.84
Cerner Corp.	0.90	0.89	0.90	9.46	2.88	11.39	11.63	11.51
CSW Industrials	0.90	1.05	0.97	9.46	2.88	12.06	12.13	12.09
Quest Diagnostics	0.85	0.96	0.91	9.46	2.88	11.49	11.70	11.59
Lauder (Estee)	0.95	1.00	0.98	9.46	2.88	12.15	12.20	12.17
Exponent, Inc.	0.90	0.94	0.92	9.46	2.88	11.58	11.77	11.68
Fastenal Co.	0.90	0.95	0.92	9.46	2.88	11.58	11.77	11.68
Gentex Corp.	0.95	1.06	1.01	9.46	2.88	12.43	12.41	12.42
Int'l Flavors & Frag	0.95	1.08	1.02	9.46	2.88	12.53	12.48	12.51
Ingredion Inc.	0.90	0.92	0.91	9.46	2.88	11.49	11.70	11.59
Iron Mountain	0.90	1.02	0.96	9.46	2.88	11.96	12.06	12.01
Hunt (J.B.)	0.95	0.91	0.93	9.46	2.88	11.68	11.84	11.76
J&J Snack Foods	0.90	0.77	0.84	9.46	2.88	10.83	11.20	11.02
Henry (Jack) & Assoc	0.85	0.89	0.87	9.46	2.88	11.11	11.42	11.26
ManTech Int'l 'A'	0.85	1.11	0.98	9.46	2.88	12.15	12.20	12.17
McCormick & Co.	0.80	0.70	0.75	9.46	2.88	9.97	10.57	10.27
Altria Group	0.90	0.88	0.89	9.46	2.88	11.30	11.56	11.43
MSA Safety	1.00	0.99	1.00	9.46	2.88	12.34	12.34	12.34
MSCI Inc.	0.95	0.94	0.94	9.46	2.88	11.77	11.91	11.84
Motorola Solutions	0.90	0.96	0.93	9.46	2.88	11.68	11.84	11.76
Vail Resorts	0.95	1.14	1.05	9.46	2.88	12.81	12.69	12.75
Maxim Integrated	0.95	0.99	0.97	9.46	2.88	12.06	12.13	12.09
Northrop Grumman	0.85	0.80	0.83	9.46	2.88	10.73	11.13	10.93
Old Dominion Freight	0.95	0.97	0.96	9.46	2.88	11.96	12.06	12.01
PerkinElmer Inc.	0.90	0.84	0.87	9.46	2.88	11.11	11.42	11.26
Philip Morris Int'l	0.95	0.91	0.93	9.46	2.88	11.68	11.84	11.76
Pool Corp.	0.85	0.95	0.90	9.46	2.88	11.39	11.63	11.51
Post Holdings	0.95	0.90	0.93	9.46	2.88	11.68	11.84	11.76
RLI Corp.	0.80	0.90	0.85	9.46	2.88	10.92	11.28	11.10
Rollins, Inc.	0.85	0.69	0.77	9.46	2.88	10.16	10.71	10.44
Selective Ins. Group	0.85	0.97	0.91	9.46	2.88	11.49	11.70	11.59
Sirius XM Holdings	0.95	1.10	1.02	9.46	2.88	12.53	12.48	12.51
Bio-Techne Corp.	0.80	0.93	0.86	9.46	2.88	11.02	11.35	11.18
Tetra Tech	0.95	1.06	1.00	9.46	2.88	12.34	12.34	12.34
Waters Corp.	0.95	0.86	0.91	9.46	2.88	11.49	11.70	11.59
West Pharmac. Svcs.	0.80	0.75	0.78	9.46	2.88	10.26	10.78	10.52
Western Union	0.80	1.05	0.93	9.46	2.88	11.68	11.84	11.76
		Mean	0.92			11.55 %	11.75 %	11.65 %
		Median	0.93			11.63 %	11.81 %	11.72 %
		Average of Mean and Median	0.93			11.59 %	11.78 %	11.69 %

Notes:
(1) From note 1 of page 2 of Schedule DWD-4.
(2) From note 2 of page 2 of Schedule DWD-4.
(3) Average of CAPM and ECAPM cost rates.

Exhibit DWD-1
Schedule DWD-7.1

Atmos Energy Corporation
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.		[1] Market Capitalization on May 28, 2021 (1) (millions)	[1] Market Capitalization on May 28, 2021 (1) (times larger)	[2] Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	[3] Applicable Size Premium (3)	[4] Spread from Applicable Size Premium (4)
1.	Atmos Energy Corporation	$ 597.101		8	1.46%	
2.	Proxy Group of Seven Natural Gas Distribution Companies	$ 4,615.314	7.7 x	4	0.75%	0.71%

	[A] Decile	[B] Market Capitalization of Smallest Company (millions)	[C] Market Capitalization of Largest Company (millions)	[D] Size Premium (Return in Excess of CAPM)*
Largest	1	$ 29,025.803	$ 1,966,078.882	-0.22%
	2	13,178.743	28,808.073	0.49%
	3	6,743.361	13,177.828	0.71%
	4	3,861.858	6,710.676	0.75%
	5	2,445.693	3,836.536	1.09%
	6	1,591.865	2,444.745	1.37%
	7	911.586	1,591.765	1.54%
	8	451.955	911.103	1.46%
	9	190.019	451.800	2.29%
Smallest	10	2.194	189.831	5.01%

*From 2021 Duff & Phelps Cost of Capital Navigator

Notes:

(1) From page 2 of this Schedule.

(2) Gleaned from Columns [B] and [C] on the bottom of this page. The appropriate decile (Column [A]) corresponds to the market capitalization of the proxy group, which is found in Column [1].

(3) Corresponding risk premium to the decile is provided in Column [D] on the bottom of this page.

(4) Line No. 1 Column [3] – Line No. 2 Column [3]. For example, the 0.71% in Column [4], Line No. 2 is derived as follows 0.71% = 1.46% - 0.75%.

Exhibit DWD-1
Schedule DWD-7.2

Atmos Energy Corporation
Market Capitalization of Atmos Energy Corporation and the Proxy Group of Seven Natural Gas Distribution Companies

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Exchange	Common Stock Shares Outstanding at Fiscal Year End 2020	Book Value per Share at Fiscal Year End 2020 (1)	Total Common Equity at Fiscal Year End 2020	Closing Stock Market Price on May 28, 2021	Market-to-Book Ratio on May 28, 2021 (2)	Market Capitalization on May 28, 2021 (3)
		(millions)		(millions)			(millions)
Atmos Energy Corporation		NA	NA	340.035 (4)	NA		
Based upon Proxy Group of Seven Natural Gas Distribution Companies						175.6 (5)	$ 597.101 (6)
Proxy Group of Seven Natural Gas Distribution Companies							
Atmos Energy Corporation	NYSE	$ 125.882	$ 53.949	$ 6,791.203	$ 99.170	183.8 %	$ 12,483.765
New Jersey Resources Corporation	NYSE	95.949	19.226	1,844.692	42.720	222.2	4,098.949
Northwest Natural Holding Company	NYSE	30.589	29.054	888.733	52.880	182.0	1,617.546
ONE Gas, Inc.	NYSE	53.167	42.006	2,233.311	74.320	176.9	3,951.352
South Jersey Industries, Inc.	NYSE	100.592	16.571	1,666.876	26.660	160.9	2,681.781
Southwest Gas Holdings, Inc.	NYSE	57.193	46.771	2,674.953	66.010	141.1	3,775.305
Spire Inc.	NYSE	51.612	44.182	2,280.300	71.660	162.2	3,698.501
Average		$ 73.569	$ 35.966	$ 2,625.724	$ 61.917	175.6 %	$ 4,615.314

NA= Not Available

Notes:
(1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 1 * Column 4.
(4) Requested rate base multiplied by the initial requested common equity ratio.
(5) The market-to-book ratio of Atmos Energy Corporation on May 28, 2021 is assumed to be equal to the market-to-book ratio of Proxy Group of Seven Natural Gas Distribution Companies on May 28, 2021 as appropriate.
(6) Column [3] multiplied by Column [5].

Source of Information: 2020 Annual Forms 10K
yahoo.finance.com
Bloomberg Professional

Exhibit DWD-1
Schedule DWD-8.1

Atmos Energy Corporation
Derivation of the Flotation Cost Adjustment to the Cost of Common Equity

Equity Issuances and Flotation Costs for FY 2019, 2018, 2017, and 2016

		[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]	[Column 6]	[Column 7]
Fiscal Year	Transaction (1)	Shares Issued	Average Offering Price per Share (2)	Net Proceeds per Share (3)	Gross Equity Issue before Costs	Total Net Proceeds	Total Flotation Costs (4)	Flotation Cost Percentage (5)
2019	At the Market Equity Offering	5,390,836	$ 92.7500	$ 91.6555	$ 500,000,000	$ 494,100,000	$ 5,900,000	1.18%
2018	At the Market Equity Offering	4,558,404	$ 87.7500	$ 86.6751	$ 400,000,000	$ 395,100,000	$ 4,900,000	1.23%
2017	At the Market Equity Offering	1,303,494	$ 76.7169	$ 75.7963	$ 100,000,000	$ 98,800,000	$ 1,200,000	1.20%
2016	At the Market Equity Offering	1,360,756	$ 73.4886	$ 72.4597	$ 100,000,000	$ 98,600,000	$ 1,400,000	1.40%
					$ 1,100,000,000	$ 1,086,600,000	$ 13,400,000	1.22%

Flotation Cost Adjustment

	Average Dividend Yield	Average Projected EPS Growth Rate	Adjusted Dividend Yield	Average DCF Cost Rate Unadjusted for Flotation (6)	DCF Cost Rate Adjusted for Flotation (7)	Flotation Cost Adjustment (8)
Proxy Group of Seven Natural Gas Distribution Companies	3.44 %	6.02 %	3.54 %	9.56 %	9.60 %	0.04 %

See page 2 of this Schedule for notes.

Source of Information: Company SEC filings