REBUTTAL TESTIMONY OF

NED W. ALLIS

VICE PRESIDENT

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

ON BEHALF OF ATMOS ENERGY CORPORATION TENNESSEE PUBLIC UTILITY COMMISSION DOCKET NO. 23-00050

SUMMARY OF REBUTTAL TESTIMONY OF NED W. ALLIS

My rebuttal testimony responds to the testimony of CAD witness Michael J. Majoros. Most of Mr. Majoros's proposed change in depreciation expense is due to a proposal to significantly, and inappropriately, change the way Atmos Energy accounts for the cost of removal. Mr. Majoros argues that the costs to remove or retire assets being replaced should be recorded to plant in service as part of the new asset rather than as removal cost. Mr. Majoros's proposal is inconsistent with accounting principles, the Uniform System of Accounts ("USOA"), authoritative depreciation textbooks, and the practices used by utilities and approved by commissions across the country. While Mr. Majoros makes various claims regarding net salvage, his recommendations are based on a fundamental misunderstanding of accounting rules and, therefore, his recommendations must be rejected.

Mr. Majoros also recommends changes to several service life estimates. His proposals result in extremely long lives that any depreciation professional should recognize as unrealistic for the property studied. For example, he forecasts close to a third of the Company's measuring and regulating station assets remaining in service for more than one-hundred years. His other recommendations are similarly unreasonable. Just as with his unsupported proposals for net salvage, Mr. Majoros's service life estimates should be rejected.

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Exhibits

DIRECT TESTIMONY

OF

NED W. ALLIS

ON BEHALF OF

ATMOS ENERGY CORPORATION

BEFORE THE

TENNESSEE PUBLIC UTILITY COMMISSION

DOCKET NO. 23-00050

I. INTRODUCTION

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Z	() .	PLEASE	SIAIL	YUUK	NAIVIT	ANDF	ADDRESS.

- 3 A. My name is Ned W. Allis. My business address is 207 Senate Avenue, Camp Hill,
- 4 Pennsylvania, 17011.

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5 Q. ARE YOU THE SAME NED W. ALLIS WHO PREVIOUSLY SUBMITTED

6 TESTIMONY IN THIS PROCEEDING?

- 7 A. Yes. I have provided my qualifications with my direct testimony on behalf of Atmos
- 8 Energy ("Atmos Energy" or "the Company").

9 Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

- 10 A. My rebuttal testimony responds to the testimony of Consumer Advocate Division of the
- Office of The Tennessee Attorney General ("CAD") witness Michael Majoros. Mr.
- Majoros has proposed to significantly change the way the Company accounts for cost of
- removal (which is the costs associated with retiring assets from service), incorrectly
- suggesting that accounting rules require cost of removal associated with replacement
- activity to be recorded as additions to new plant rather than cost of removal. As I explain,
- the basis for Mr. Majoros's proposal is a misreading of the Uniform System of Accounts
- 17 ("USOA"). Under the USOA, utilities are required to (and, in my experience, do) record

retirement costs associated with replacement activity as cost of removal. Because his proposal is based on a flawed premise, Mr. Majoros's net salvage recommendations are unreasonable and should be rejected.

Additionally, Mr. Majoros proposes longer service lives for several accounts. His positions here are similarly extreme, as, for example, he unrealistically forecasts that more than 30 percent of the Company's regulator station assets will last more than 100 years and some will last more than 200 years. As I will discuss, these proposals are similarly flawed and should also be rejected.

II. NET SALVAGE AND COST OF REMOVAL

A. Introduction

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11 Q. WHAT IS NET SALVAGE?

- 12 A. Net salvage is the net cost associated with retiring an asset and is charged to accumulated
 13 depreciation when an asset is retired. Net salvage is equal to the gross salvage less cost of
 14 removal.
- 15 O. WHAT IS GROSS SALVAGE?
- 16 A. Gross salvage is the value received for property upon retirement, such as for reuse or scrap.
- 17 Cars, for example, typically have a gross salvage value upon retirement.

18 Q. WHAT IS COST OF REMOVAL?

A. Cost of removal is the term applied to costs associated with retiring an asset from service at the end of its useful life. The term "cost of removal" is somewhat of a misnomer since there are often costs incurred even if retired assets are not physically removed. For example, while most gas mains are abandoned in place when retired, there are costs to excavate, cut the pipe, purge gas from the line, and cap each end of the pipe. These costs

are cost of removal related to the retired main.

3 Q. WHAT IS A RETIREMENT?

A. The term retirement describes when an asset is removed from service at the end of its service life. From an accounting standpoint, a retirement results in a reduction to plant in service and a corresponding reduction to accumulated depreciation. Costs of removal and gross salvage associated with the retirement are also recorded to accumulated depreciation when recorded or received. Retirements can occur with replacement (meaning that a new asset or assets are added to replace the asset being retired) or they can occur without replacement (meaning no asset is added in replacement).

11 Q. WHY DOES COST OF REMOVAL OCCUR WITH OR WITHOUT

REPLACEMENT?

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A. Consider the activities described above related to the retirement of the main. Whether the asset is being replaced or not, the retired main will need to be cut, purged of gas, and capped, regardless of whether the main is replaced with a new main. As a result, there is often cost of removal associated with both replacement projects and retirement only projects.

Q. ARE ESTIMATES OF FUTURE COST OF REMOVAL NORMALLY INCLUDED

IN DEPRECIATION?

A. Yes. Net salvage (i.e., gross salvage less cost of removal) is a component of the full capital cost of an asset used to provide utility service. Just as depreciation allocates the original cost of an asset over its service life, the same should occur for any net salvage costs

associated with the asset.

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Q. IS INCLUDING NET SALVAGE COSTS IN A DEPRECIATION STUDY CONSISTENT WITH GENERAL PRINCIPLES OF ACCOUNTING?

Yes, in at least two ways. First, from an accounting standpoint, the inclusion of net salvage in depreciation satisfies the matching principle as it matches the capital cost of assets (including net salvage) with the periods over which these assets generate revenues. From a ratemaking standpoint, the inclusion of net salvage in depreciation results in customers paying their fair share of the full cost of service for each asset, including not only the original capital costs of placing the asset in service but also the end-of-life costs associated with retiring the asset.

The National Association of Regulatory Utility Commissioners' ("NARUC") publication *Public Utility Depreciation Practices* explains this concept on page 157:

Historically, most regulatory commissions have required that both gross salvage and cost of removal be reflected in depreciation rates. The theory behind this requirement is that, since most physical plant placed in service will have some residual value at the time of retirement, the original cost recovered through depreciation should be reduced by that amount. Closely associated with this reasoning is the accounting principle that revenues be matched with costs and the regulatory principle that utility customers who benefit from the consumption of plant pay for the cost of that plant, no more, no less. The application of the latter principle also requires that the estimated cost of removal of plant be recovered over its life.

Second, including future cost of removal in depreciation also accomplishes the goal of intergenerational equity, the ratemaking principle that each generation of customers pays their fair share of the costs of assets from which they receive utility service. If cost of removal were not recovered through depreciation expense over the lives of the related

1	ssets, then customers would have to pay these costs after the assets are retired, which
2	would result in intergenerational <i>inequity</i> .

Q. MR. MAJOROS DISCUSSES DEPRECIATION AND ITS IMPACTS ON RATEPAYERS ON PAGES 3 AND 4 OF HIS TESTIMOMY. ARE THERE ANY CONCEPTS MISSING FROM HIS DISCUSSION?

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Yes. While there are other inaccuracies in his discussion on these pages of his testimony, ¹ Mr. Majoros also omits a very important concept. Depreciation impacts the revenue requirement and customer rates not only because it is an expense incorporated into the revenue requirement, but also because accumulated depreciation is a reduction to rate base. This means that, all else equal, lower depreciation today not only means higher depreciation in the future but also a higher rate base and higher return on rate base. As a result, in the long run, lower depreciation expense can lead to higher customer rates because the impact of higher rate base eventually exceeds the impact of lower depreciation expense. NARUC explains this concept further:

The regulatory body prescribing depreciation rates is thus confronted with a decision which affects both short run and long run interests of the customer and the company. If a commission prescribes rates which yield depreciation accruals that are too low, the revenue requirement in the short run may be lower. But the requirements for income taxes and return may offset the apparent savings in depreciation expense, so service rates in the long run may be higher. If depreciation rates are set so low that the revenue requirement fails to repay the capital invested in a group of property by the end of its service life, confiscation takes place or the unpaid cost remains in the rate base until amortized or expensed. On the other hand, if the regulatory body establishes depreciation rates toward the upper end of the zone of reasonableness, rates for service will be higher in the short run, but may be lower in the long run.²

¹ As an example, he is incorrect to disparage the use of informed judgment. Further, the objective of depreciation is to recover the original cost and net salvage of an asset over its service life, not just the original cost.

² NARUC, Public Utility Depreciation Practices (1996), p. 23

As I will discuss in detail, Mr. Majoros's proposals will result in depreciation expense that is too low for the assets under consideration. It is important for the Commission to understand that reducing depreciation, as he would propose, will not result in a permanent reduction in rates. Instead, Mr. Majoros's proposed approach will be *more* costly to customers in the long run. In addition, it will also produce intergenerational inequity.

B. Mr. Majoros's Proposed Accounting Treatment is Inconsistent with the USOA and Industry Practices

9 Q. WHAT HAS MR. MAJOROS PROPOSED FOR NET SALVAGE?

- A. Mr. Majoros provides many pages of testimony on net salvage, in which he makes a variety of claims and insinuations about the motives of the Company in its accounting practices. Ultimately, his proposal is to radically change the way the Company accounts for cost of removal. More precisely, he proposes that most cost of removal not be recorded as cost of removal at all, but instead be recorded to the cost of additions to plant in service. His recommended net salvage estimates are based on an attempt to adjust the estimates of future net salvage based on this accounting change, although he also performs these calculations incorrectly.
- Q. DO OTHER UTILITIES ACCOUNT FOR COST OF REMOVAL ASSOCIATED
 WITH REPLACEMENT ACTIVITY IN THE WAY MR. MAJOROS PROPOSES?
 - A. No. Of all the hundreds of depreciation studies and other projects that I have worked on in my career, I do not recall any utility being required to account for cost of removal in the way Mr. Majoros suggests. Contrary to Mr. Majoros's testimony, the USOA instructions prescribe the opposite approach of what he recommends and, for this reason, to my knowledge all utilities (or at least the vast majority) follow the standard industry practice

1 of recording cost of	removal for replacement projects.
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2 Q. HAVE YOU REVIEWED ANY OTHER DEPRECIATION STUDIES PREPARED

- **FOR UTILITIES OPERATING IN TENNESSEE?**
- 4 A. Yes, I have reviewed the depreciation studies filed by Piedmont Natural Gas in Docket 20-
- 5 00086 and by Chattanooga Gas Company in Docket No. 18-000017.
- 6 Q. DO EITHER PIEDMONT OR CHATTANOOGA GAS ACCOUNT FOR COST OF
- 7 REMOVAL ASSOCIATED WITH REPLACEMENT ACTIVITY IN THE WAY
- 8 MR. MAJOROS PROPOSES?
- 9 A. No. Based on my review of the depreciation study in those dockets, both Piedmont and
- 10 Chattanooga Gas (i) include net salvage estimates in depreciation rates and, (ii) based on
- the estimates in those studies (such as for gas services), record cost of removal to
- accumulated depreciation for replacement projects. I am not aware of the Commission
- rejecting these industry standard approaches in these or other dockets.
- 14 Q. IF UTILITIES ACROSS THE COUNTRY ACCOUNT FOR COST OF REMOVAL
- 15 IN A WAY THAT MR. MAJOROS ALLEGES VIOLATES THE USOA, DO WE
- 16 HAVE STRONG REASON TO BELIEVE HIS INTERPRETATION OF THE USOA
- 17 IS INCORRECT?
- 18 A. Yes. If Mr. Majoros was correct, then the accounting methods used by virtually every
- 19 utility in the country would violate the USOA. Of course, this is not true. Instead, cost of
- 20 removal should be recorded as cost of removal to accumulated depreciation regardless of
- 21 whether it is due to replacement activity or retirement only activity, which is actually made
- clear by the accounting instructions in the USOA.

Q. HOW DOES	MR. MAJORO	OS SUPPORT HIS	S OPINION THAT	COST O
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2 REMOVAL FOR REPLACEMENT PROJECTS SHOULD BE RECORDED AS

3 PART OF AN ADDITION TO PLANT?

- 4 A. Mr. Majoros's support for this opinion is his interpretation of a definition from the FERC

 5 Uniform System of Accounts (USOA). The definition he cites is:
 - 32. A. *Replacing or replacement*, when not otherwise indicated in the context, means the construction or installation of gas plant in place of property retired, together with the removal of the property retired."³

Mr. Majoros interprets this definition as requiring the recording of removal costs as part of the addition to plant because of the phrasing "together with the removal of property retired" (since he emphasizes this phrase on page 19 of his testimony). But this definition is merely explaining what a replacement is (*i.e.*, a project in which both new plant is added and old plant is removed – that is, the existing plant is *replaced* with new plant). It is not explaining that removal costs should be combined with the cost of the new addition and recorded to plant in service for accounting purposes.

Thus, Mr. Majoros's interpretation is a misreading of the plain text of the definition, since the definition makes clear a replacement has two parts – an addition to plant in service and a retirement with removal. From this definition alone, it would be a more reasonable interpretation for this to mean that these are different tasks that should be accounted for separately than to come to Mr. Majoros's conclusion. That accounting separately for additions and retirement costs, as the Company has done, is the correct interpretation of this section is also supported by additional sections of the USOA, all of which confirm that Mr. Majoros's interpretation is incorrect.

³ 18 CFR Ch. 1, Subchapter F, Part 201, Definition 32.

Q. WHAT IS A MORE COMPREHENSIVE UNDERSTANDING OF WHAT USOA

PROVIDES IN THIS AREA?

3 A. If one reads the entirety of the plant instruction 10B(2), cited in part by Mr. Majoros,⁴ it states:

When a retirement unit is retired from gas plant, with or without replacement, the book cost thereof shall be credited to the gas plant account in which it is included, determined in the manner set forth in paragraph D, below. If the retirement unit is of a depreciable class, the book cost of the unit retired and credited to gas plant shall be charged to the accumulated provision for depreciation applicable to such property. The cost of removal and the salvage shall be charged or credited, as appropriate, to such depreciation account."⁵

The USOA is, therefore, clear that, whether or not a retirement occurs due to replacement (or is retired without replacement), the cost of removal and gross salvage shall be charged or credited to accumulated depreciation. There is no distinction made, as Mr. Majoros suggests, if the retirement occurs due to replacement activity. Instead, the USOA instructs that in both instances, that cost of removal should be recorded to accumulated depreciation in the same manner.

Q. IS THERE ADDITIONAL LANGUAGE PROVIDED BY USOA THAT SUPPORTS YOUR UNDERSTANDING OF COST OF REMOVAL?

A. Yes. Additional language in the USOA supports this interpretation. In describing the property record system for accounting, plant instruction 11 states that "...all items relating to the retirements shall be kept separate from those relating to construction..." The description of Account 108, Accumulated Provision for Depreciation of Gas Plant, does

⁴ Majoros p. 5, 1. 11-12

⁵ USOA Plant Instruction 10 (B)(2)

not make a distinction between retirements occurring with or without replacement, and instead states "[a]t the time of retirement of depreciable gas utility plant, this account shall be charged with the book cost of the property retired and the cost of removal and shall be credited with the salvage value and any other amounts recovered, such as insurance." Plant Instruction 10(F) states "[t]he book cost less net salvage of depreciable gas plant shall be charged in its entirety to Account 108 Accumulated Provision for Depreciation of Gas Plant in Service..."

Read together, it is clear that cost of removal is recorded to accumulated depreciation regardless of whether the retirement occurs due to replacement activity or purely retirement activity. Indeed, contrary to Mr. Majoros's claims, his approach of recording cost of removal as part of an addition to plant for replacement activity would not comply with the USOA.

C. Atmos Energy's Accounting for Replacement Projects

- 14 Q. MR. MAJOROS MENTIONS THE COMPANY'S TIME AND MOTION STUDIES
 15 THAT DETERMINED AN ALLOCATION OF REPLACEMENT COSTS
 16 BETWEEN NEW ADDITIONS AND COST OF REMOVAL. DOES HE
 17 CHARACTERIZE THESE STUDIES ACCURATELY?
- 18 A. No. In fact, notwithstanding his insinuations that the Company performed these studies to
 19 increase cost of removal included in depreciation, the actual effect of this study was to do
 20 the opposite, since it resulted in less cost of removal for replacement projects than was the
 21 Company's practice previously. In other words, not only does Mr. Majoros
 22 mischaracterize this study, but he does not appear to understand it (or at least understand
 23 its impacts).

- 1 Q. YOU PREVIOUSLY DESCRIBED PROJECT ACTIVITIES ASSOCIATED WITH
- THE RETIREMENT OF ASSETS. ARE SOME OF THE ACTIVITIES
- 3 ASSOCIATED WITH REPLACEMENT PROJECTS SHARED COSTS FOR
- 4 BOTH THE ADDITION OF NEW PLANT AND THE RETIREMENT OF
- 5 **EXISTING PLANT?**
- 6 A. Yes. For example, equipment costs, mobilization costs, and traffic control costs may be
- 7 needed for both addition and removal activities. There are two primary methods by which
- 8 these types of costs may be recorded to plant in service or removal. The first is the
- 9 <u>incremental</u> method, in which only costs associated with retirement that are incremental to
- the project (i.e., that occur in addition to the cost of placing a new asset in service) are
- recorded as cost of removal. The second is the common cost sharing method in which
- 12 costs common to both tasks are allocated between plant in service and cost of removal in
- proportion to the directly assigned costs (primarily labor) associated with each task. These
- are described in more detail as part of the Time and Motion Studies performed by Alliance
- 15 Consulting Group ("Alliance Studies") which were provided in the response to CAD Data
- 16 Request No. 1-34.⁶

17 Q. WHICH METHOD DOES THE ALLIANCE STUDY RECOMMEND AND WHICH

HAS BEEN IMPLEMENTED BY THE COMPANY?

- 19 A. The study recommends the incremental method, and this is the method that the Company
- 20 has implemented.

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21 Q. WHAT IS THE RESULT OF USING THIS METHOD?

⁶ Mr. Majoros has included versions of these reports with what appear to be his handwritten notes as Exhibit MJM-

Using the incremental method results in less cost of removal being allocated for replacement projects than if the common cost sharing method had been used. Since the implementation of the study's recommendations in late 2015 and late 2016, this has reduced the recorded cost of removal for the Company. This can be seen in the data. For example, the three-year moving averages for Account 380.00, Services, had exceeded negative 20 percent in =prior years but declined to negative 10 to 15 percent range after the incremental method was adopted in 2016.

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MR. MAJOROS CLAIMS ON PAGE 22 OF HIS TESTIMONY THAT THERE ARE "SUBSTANTIAL INCREASES" TO COST OF REMOVAL AFTER THE ALLIANCE STUDIES WERE IMPLEMENTED. DO YOU AGREE?

No. I believe Mr. Majoros may be looking at the dollar levels of cost of removal to draw this conclusion, but that is a function of the volume and cost of work performed in addition to the percentage allocated to cost of removal. For this reason, the dollar levels do not necessarily show the impact of the Alliance Studies. Cost of removal has increased because costs have increased and the Company (like most gas companies) is doing more work than in the past to replace aging infrastructure. To put this differently, the Company is retiring more assets and, therefore, we should expect cost of removal to increase. However, on a percentage basis, cost of removal has not increased overall (as discussed above for Account 380.00).

Importantly, if we compare cost of removal to total capital expenditures (i.e., additions plus cost of removal), then we can better see the impact of the Alliance Studies. Indeed, we see that the percentage of cost of removal recorded has, in fact, decreased. Table 1 below shows cost of removal, total capital expenditures (i.e., cost of removal plus

additions to plant in service) and cost of removal as a percentage of capital expenditures for gas mains and services accounts since 2015. As the table shows, following the Alliance Studies, cost of removal as a percentage of capital expenditures declines in 2017. This is what we should expect with the change to the incremental approach for determining cost of removal for replacement projects and, contrary to Mr. Majoros's testimony, the Alliance Studies had the result of reducing recorded cost of removal (with corresponding higher additions to plant in service).

Table 1
Cost of Removal Compared to Capital Expenditure for Accounts 367.00, 367.01, 376.00, 376.01, 376.02 and 380.00

Transaction Year	Cost of Removal	Capital Expenditures	Cost of Removal Pct of Capital Exp
2015	541,928	20,011,330	2.71%
2016	874,315	21,743,147	4.02%
2017	524,688	29,461,327	1.78%
2018	383,102	31,427,285	1.22%
2019	886,168	45,715,706	1.94%
2020	1,353,250	50,666,013	2.67%
2021	984,214	41,958,154	2.35%
2022	967,947	52,978,230	1.83%

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Q. WHAT DOES MR. MAJOROS CLAIM ABOUT THE ALLIANCE STUDIES?

Mr. Majoros claims on page 22 of his testimony that "the intent of the Alliance Studies was to pass more cost of removal into Mr. Allis's net salvage studies." The Company had no such intent, and, as I have explained, the studies recommended an approach that results in less cost of removal than the approach used previously. This type of inflammatory statement only demonstrates that Mr. Majoros fails to understand the Alliance studies (since they had the opposite effect he implies).

- 1 Q. ON PAGE 19 OF HIS TESTIMONY, MR. MAJOROS ALSO CLAIMS THAT THE
- 2 COMPANY'S ALLOCATION TO COST OF REMOVAL IS ARBITRARY
- 3 "BECAUSE ALL ALLOCATIONS ARE ARBITRARY." DO YOU AGREE?
- 4 A. No. In the case of Atmos Energy's assets, the percentage of replacement costs assigned to
- 5 removal costs is based on a detailed study of the tasks involved for replacement projects
- and a review of a sample of specific projects and the costs and tasks associated with these.
- 7 This is a reasonable and thorough approach that is not arbitrary. I note that Mr. Majoros
- does not criticize any specific aspects or methodology of the study, but rather criticizes it
- 9 only because he believes it produces a result that he does not want.

10 D. Mr. Majoros's Calculations are Incorrect

- 11 Q. HAVE YOU REVIEWED MR. MAJOROS'S CALCULATIONS OF NET
- 12 SALVAGE PERCENTAGES?
- 13 A. Yes. As discussed previously, Mr. Majoros's proposals are based on a misreading of the
- 14 USOA and misunderstanding of accounting concepts. He also has incorrectly performed
- calculations based on these flawed assumptions. Specifically, he assumes that the 5%
- allocation factor for cost of removal for replacement projects would apply as the future net
- salvage percent for assets to be replaced without retirement. This is improper for two
- reasons. First, the 5% applies to new capital expenditures, but Mr. Majoros applies it to
- older assets at original cost, thus understating the cost of removal that would occur (even
- 20 if his incorrect assumption about using this 5% figure were reasonable, which it is not).
- 21 Second, because the 5% allocation is based on the incremental method, it does not include
- common costs. For retirement only projects (without replacement) the full amount of costs
- would be applied to cost of removal. This means a higher cost for retirement-only projects

- than those allocated to replacement projects. Thus, not only is Mr. Majoros's proposal conceptually unsound, but it is also mathematically incorrect for what he attempts to do, as he should have used a higher cost of removal for retirement-only projects.
- 4 E. Alternative Net Salvage Methods Raised by Mr. Majoros
- 5 Q. DOES MR. MAJOROS DISCUSS ANY ALTERNATIVE METHODS TO NET
- 6 SALVAGE?
- 7 A. Yes. On page 21 of his testimony, Mr. Majoros discusses alternative methods for net 8 salvage as used in Pennsylvania, New Jersey, and Maryland. In Pennsylvania and New 9 Jersey, future net salvage is not included in depreciation rates and instead is recovered 10 after, or concurrent with, when the costs are expended. This approach produces 11 intergenerational inequity, as future customers must pay the costs of removal for assets that 12 are no longer in service. Maryland uses a present value method that recovers more net 13 salvage costs in later years than in the earlier years of an asset's life. This approach has 14 several mathematical and conceptual deficiencies that have resulted in Maryland utilities 15 failing to recover even their current net salvage costs, much less future net salvage. Both 16 methods also lead to a higher rate base than had the traditional method of net salvage been 17 used, which leads to higher rates for customers in the long run due to a return on this higher 18 rate base.
- 19 Q. HAS MR. MAJOROS PROPOSED TO USE EITHER OF THESE METHODS?
- 20 A. No.
- 21 Q. YOU NOTE PROBLEMS WITH THESE ALTERNATIVE METHODS. ARE
- 22 THEY WIDELY USED?

A. No. The fact that Mr. Majoros only provides three examples indicates that there are not many jurisdictions that support alternative methods. Based on my firm's experience, the traditional method I have used is not only supported by depreciation textbooks but is also used in the vast majority of U.S. regulatory jurisdictions.

5 Q. HAVE THE ALTERNATIVE METHODS PROPOSED BY MR. MAJOROS BEEN

REJECTED BY OTHER JURISDICTIONS?

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Yes. Mr. Majoros is surely aware of this since he participated in many such cases. For example, relatively recently FERC rejected both of his alternative approaches in a case in which he and I testified. Other examples of jurisdictions that have upheld the use of the method I have used are Michigan, Georgia, California, Vermont, Indiana, West Virginia, Missouri, Missouri, New York, Massachusetts, Massachusetts, and Texas.

⁷ See paragraphs 117 and 127 of FERC Opinion No. 572 in Docket No. ER16-2320-002, issued October 15, 2020.

⁸ See Michigan Public Service Commission Order, Case No. U-15629 filed September 29, 2009,

⁹ See Georgia Public Service Commission Docket No. 31647, Final Order, filed December 21, 2010, p. 9.

¹⁰ The commission in California has upheld the traditional method in multiple decisions. See, for example California D.07-03-044 in A.05-12-002, pp. 226 and 227.

¹¹ Vermont Docket Nos. 6946 and 6988, Order Issued March 29, 2005, pp. 116-117.

¹² Indiana Cause No. 42359, Order Issued May 18, 2004, pp. 71-72.

¹³ See, for example, West Virginia consolidated Dockets No. 06-0960-E-427 and 06-1426-E-D. On p. 27 of the Order the West Virginia Commission states that "[t]he Commission shall authorize the Companies to use the depreciation rates recommended by Staff." In these cases, Staff had recommended changes to net salvage for generating plants but as stated on p. 5, lines 14-17 of Staff witness deGruyter's testimony did not object to "including net salvage for most mass property accounts where items are routinely removed and replaced, nor to interim retirements within location life or unit life assets such as generating plants." Staff therefore recommended the traditional method, which the Commission accepted. I should note that while the Commission in West Virginia adopted different net salvage estimates for electric generation, this did not change the use of the traditional method in West Virginia.

¹⁴ See Docket No. GR-99-315, Third Report and Order issued January 11, 2005.

¹⁵ See pages 138 and 138 of the Order in Dockets No. 07-0585, 07-0586, 07-0587, 07-0588, 07-0589 and 07-0590.

¹⁶ See pages 110 to 116 of the Order in Docket No. 08-E-0539.

¹⁷ Dockets UE-170033 and UG-170034.

¹⁸ See Accounting Order 03-455 for PacifiCorp. PacifiCorp continues to use the traditional method for net salvage in Oregon.

¹⁹ See Massachusetts Docket No. D.P.U. 17-05-F, Order on Eversource's Motion for Reconsideration and Motion for Leave to File a Response, dated May 11, 2018, p 13.

²⁰ Texas PUC Docket No. 35717, Proposal for Decision, p. 166.

Q. DO DEPRECIATION TEXTBOOKS ALSO SUPPORT THE METHOD OF NET

SALVAGE YOU HAVE USED?

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- 3 A. Yes. For example, NARUC's *Public Utility Depreciation Practices*, on page 18, explains
 4 the type of analysis used to estimate not solve as in this case.
- 4 the type of analysis used to estimate net salvage in this case:

Under presently accepted concepts, the amount of depreciation to be accrued over the life of an asset is its original cost less net salvage. Net salvage is the difference between the gross salvage that will be realized when the asset is disposed of and the cost of retiring it. Positive net salvage occurs when gross salvage exceeds cost of retirement, and negative net salvage occurs when cost of retirement exceeds gross salvage. Net salvage is expressed as a percentage of plant retired by dividing the dollars of net salvage by the dollars of original cost of plant retired. The goal of accounting for net salvage is to allocate the net cost of an asset to accounting periods, making due allowance for the net salvage, positive or negative, that will be obtained when the asset is retired. This concept carries with it the premise that property ownership includes the responsibility for the property's ultimate abandonment or removal. Hence, if current users benefit from its use, they should pay their pro rata share of the costs involved in the abandonment or removal of the property and also receive their pro rata share of the benefits of the proceeds realized. (Emphasis $added)^{21}$

In summary, there are no proposals in this case to use the alternative methods Mr. Majoros proposes. However, these methods do not have widespread support or use. To the contrary, commissions across the country and other authorities such as NARUC support the methods of estimating and depreciating net salvage that I have used in the depreciation study.

III. SERVICE LIVES

Q. WHAT DOES MR. MAJOROS PROPOSE FOR SERVICE LIVES?

²¹ The underlined passages provide guidance on the method used for net salvage. NARUC explains that net salvage is analyzed by expressing net salvage as a percentage of retirements and that customers should pay their pro rata share of future net salvage over the life of the property (meaning in equal amounts over the life, i.e., the straight line method). The net salvage method I have used also described in Chapter XI of NARUC (p. 159) and the Commission has found that this method for net salvage is consistent with NARUC (Docket No. 2017-00065, Order, p. 25).

A. Mr. Majoros proposes longer service lives for five accounts or subaccounts. Four of these five are based on the analyses and estimate for Account 378, Measuring and Regulating Station Equipment. The fifth of these accounts is also based on the estimate for another account. Thus, most of his proposal is based on the analysis for a single account.

5 Q. DOES MR. MAJOROS ACCURATELY CHARACTERIZE YOUR ANALYSIS OR 6 HOW DEPRECIATION STUDIES ARE PERFORMED?

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A. No. As with his discussion of net salvage, Mr. Majoros has mischaracterized several aspects of the depreciation study and, further, is contradicted by industry best practices and authoritative sources such as NARUC. Most significantly, Mr. Majoros omits critical components of a depreciation study and life estimation and, as a result, his proposals produce extremely unrealistic service lives for the types of assets studied. As I will explain, this is the result of Mr. Majoros's focus on only on a small part of my depreciation study (more precisely, preliminary statistical curve fitting results).

14 Q. HOW DOES MR. MAJOROS DESCRIBE THE PROCESS OF YOUR STUDY AS 15 IT RELATES TO SERVICE LIFE ESTIMATES?

16 On pages 14 through 18 of his testimony, Mr. Majoros describes the statistical analysis A. phase of a study, in which original life tables are developed and survivor curves fit to the 17 18 historical data. He also references preliminary mathematical curve fitting results. 19 However, his testimony implies that the study stops there. This is incorrect -- the preliminary curve fitting results process is only a portion of the overall effort involved in 20 21 estimating service lives. Additional analyses of historical data should be performed to 22 consider the impacts of different ranges of data. Just as important, additional factors such as the mortality characteristics of the property, industry trends, and information obtained 23

from site visits and meetings with Company personal must be considered. The goal of a depreciation study is to develop a forecast of the future life experience of the property studied. It is not merely an examination of the past as Mr. Majoros's testimony incorrectly implies. Importantly, expert judgment is needed to synthesize this information to develop the most reasonable service life estimates.

O. DOES MR. MAJOROS INCORPORATE EXPERT JUDGMENT?

A. No. In fact, he disparages the concept, characterizing it as "unnecessary personal judgment" on page 3 of his testimony. As with his other positions in this case, Mr. Majoros's opinions are not supported by authoritative texts or guides. To the contrary, NARUC's *Public Utility Depreciation Practices* expresses the importance of judgment on page 128 when discussing estimating service lives:

The use of informed judgment can be a major factor in forecasting. A logical process of examining and prioritizing the usefulness of information must be employed, since there are many sources of data that must be considered and weighed by importance. For example, the following forces of retirement need to be considered: Do the past and current service life dispersions represent the future? Will scrap prices rise or fall? What will be the impact of future technological obsolescence? Will the Company be in existence in the future? The analyst must rank the factors and decide the relative weight to apply to each. The final estimate might not resemble any one of the specific factors; however, the result would be a decision based on a combination of the components.

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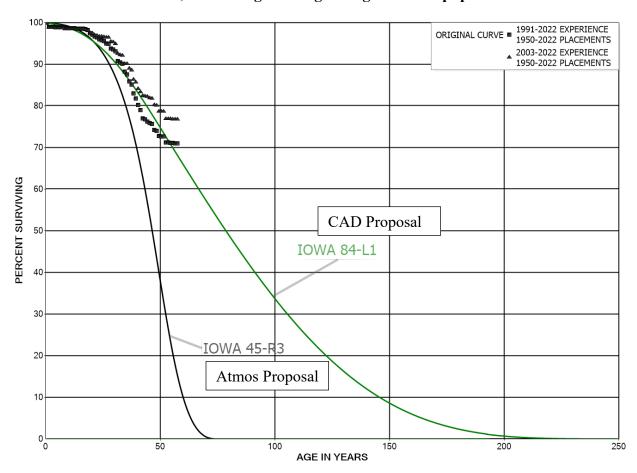
Q. WHAT IS THE RESULT OF MR. MAJOROS'S ABSENCE OF JUDGMENT?

The result is extremely long lives that do not match reality or any responsible expectation for the future. For Account 378.00, Measuring and Regulating Station Equipment, I have provided a comparison of Mr. Majoros's and my proposals in Figure 1 below. These are also compared with the Company's historical data (the band shown as black squares represents the entire available data set for the study).

Figure 1: Comparison of Survivor Curve Estimates to Original Life Tables for Account 378.00, Measuring and Regulating Station Equipment

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4 Q. WHAT CAN YOU OBSERVE FROM THIS COMPARISON?

First, it should be apparent that Mr. Majoros has proposed extremely long lives for measuring and regulating station equipment. Each curve estimate shows the percentage of assets expected to remain in service at each age, with percent surviving as the y-axis and age as the x-axis. Measuring and regulating station assets vary in components, with some having lives in the 20 to 30 year range and some more in the 40 to 60 year range. Like many gas companies, Atmos Energy will rebuild or replace the assets at stations as well as entire stations. Continued focus on reliability investments will also lead to replacements of assets or entire stations going forward. For these reasons, we should expect lives more

in the typical range of 40 to 55 years and are likely to experience higher rates of retirement (and shorter lives) than in the past. Most, if not all, should be retired by 100 years of age.

Mr. Majoros, however, expects that over 30% of the assets in this account will remain in service more than 100 years, close to 10% will have lives of 150 years or more and some will have lives that exceed 200 years. These are clearly unrealistic assumptions for these assets and Mr. Majoros's service life estimate should be eliminated from consideration.

Importantly, because the data shown above are only through about age 60, most of these expectations are Mr. Majoros's forecast of what will occur beyond the end of the statistically robust period of data shown above (because there are few data points beyond age 60). That is, Mr. Majoros is extrapolating these very long lives rather than basing them on specific company experience.

Q. IS YOUR ESTIMATE MORE REASONABLE THAN MR. MAJOROS, EVEN THOUGH IT DOES NOT MATHEMATICALLY FIT THE DATA AS WELL AS HIS ESTIMATE?

Yes. Of course, the first reason is that my estimate does not forecast such extremely long lives. My estimate also incorporates other important considerations beyond just the statistical analysis, which suggest a shorter service life is expected in the future than in the past. As a result, my estimate is the most reasonable and most consistent with guidance from NARUC on how a depreciation study should be performed. Mr. Majoros's proposals are not based on a depreciation study and produce extremely unrealistic results.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

23 A. Yes.

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BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION NASHVILLE, TENNESSEE

IN RE:		
ATMOS ENERGY CORPORATION)	
TENNESSEE DIRECT,)	***
KENTUCKY/MID-STATES DIVISION,)	DOCKET NO. 23-00050
AND SHARED SERVICES UNIT)	
DEPRECIATION STUDY)	
VERIFICAT	ΓΙΟΝ	
COMMONWEALTH OF PENNSYLVANIA)	· · · · · · · · · · · · · · · · · · ·
COUNTY OF CUMBERLAND)	
I, Ned W. Allis, being first duly sworn, state Valuation and Rate Consultants, LLC, that I am auth Corporation in the above referenced docket, that the F of Atmos Energy Corporation's filing is true and corporation.	horized to to	estify on behalf of Atmos Energy stimony of Ned W. Allis in support
and belief.	icet to the b	est of my knowledge, information
	Ned	M. Allis
Sworn and subscribed before me this // day of C	October, 202	23.
÷-	Not	ary Public
My Commission Expires: Ebnay 20, 2027		Commonwealth of Pennsylvania - Notary Seal Cheryl Ann Rutter, Notary Public

My commission expires February 20, 2027 Commission number 1143028 Member, Pennsylvania Association of Notaries