COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
COMMONWEALTH KEYSTONE BUILDING
400 NORTH STREET, HARRISBURG, PA 17120

BUREAU OF
INVESTIGATION
&
ENFORCEMENT

August 22, 2022

<u>Via Electronic Filing</u>
Secretary Rosemary Chiavetta
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Pennsylvania Public Utility Commission v.
Columbia Gas of Pennsylvania, Inc.
Docket No.: R-2022-3031211
I&E Pre-Served Testimony, Exhibits, and Verification Statements

Dear Secretary Chiavetta:

Enclosed for electronic filing please find the **<u>Non-Proprietary</u>** versions of the **Pre-Served Testimony, Exhibit, and Verification Statements** of the Bureau of Investigation & Enforcement's (I&E) witnesses in the above-captioned proceeding. **The <u>Proprietary</u> versions will be submitted to the Secretary Bureau's file-share site.** The following documents were admitted into the record at the evidentiary hearing held on August 3, 2022:

D. C. Patel	I&E Statement No. 1 (PROPRIETARY and NON-PROPRIETARY) I&E Exhibit No. 1 (PROPRIETARY and NON-PROPRIETARY) I&E Statement No. 1-R I&E Exhibit No. 1-R I&E Statement No. 1-SR (PROPRIETARY and NON-PROPRIETARY) Verification Statement
Christopher Keller	I&E Statement No. 2 I&E Exhibit No. 2 I&E Statement No. 2-SR Verification Statement
Ethan H. Cline	I&E Statement No. 3 I&E Exhibit No. 3 I&E Statement No. 3-R I&E Statement No. 3-SR Verification Statement
Tyler Merritt	I&E Statement No. 4 I&E Exhibit No. 4 I&E Statement No. 4-SR Verification Statement

Copies of this letter are being served on parties of record per the attached Certificate of Service. Should you have any questions, please do not hesitate to contact me.

Sincerely,

Erika L. McLain

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Enclosures

cc: Deputy Chief ALJ Christopher Pell (*Cover Letter and Certificate of Service only)*
ALJ John M. Coogan (*Cover Letter and Certificate of Service only)*
Per Certificate of Service (*Cover Letter and Certificate of Service only*)

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No.: R-2022-3031211
	:	
Columbia Gas of Pennsylvania, Inc.	:	

CERTIFICATE OF SERVICE

I hereby certify that I am serving the foregoing **Letter Regarding Pre-Served Testimony, Exhibits, and Verification Statements** dated August 22, 2022, in the manner and upon the persons listed below:

Served via Electronic Mail Only

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I&E Statement No. 1
Witness: D. C. Patel
NON-PROPRIETARY

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Direct Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES

ENERGY EFFICIENCY PLAN

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is D. C. Patel, and my business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

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

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. WHAT IS YOUR EDUCATION AND EMPLOYMENT BACKGROUND?

A. An outline of my education and employment background is set forth in the attached Appendix A.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. I&E's analysis in the proceeding is based on its responsibility to represent the public interest. This responsibility requires the balancing of the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to review the base rate filing of Columbia Gas of Pennsylvania, Inc. (Columbia or Company) and make recommended adjustments to the Company's proposed operating and maintenance (O&M) expenses for the fully projected future test year (FPFTY) ending December 31, 2023.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 1 contains schedules that support my direct testimony.

Q. WHAT TEST YEARS IS COLUMBIA USING IN THIS PROCEEDING?

A. Columbia is using the twelve months ended November 30, 2021 as the historic test year (HTY), the twelve months ending November 30, 2022 as the future test year (FTY), and the twelve months ending December 31, 2023 as the FPFTY in this proceeding (Columbia Statement No. 4, p. 3).

Q. WHAT IS COLUMBIA'S REQUESTED REVENUE INCREASE?

A. Columbia is requesting an annual total revenue increase of $82,151,953 (approximately 10% increase) based upon the FPFTY pro forma revenue requirement, which reflects a total rate base claim of $2,958,295,013 and overall rate of return computed at 8.08% for its gas distribution operations (Columbia Statement No. 4, p. 4 and Columbia Exhibit No. 102, Schedule 3, p. 3).

BASE RATE CASE IMPACT ON CUSTOMERS' RATES

Q. SUMMARIZE COLUMBIA'S CONSISTENT BASE RATE CASES (REVENUE INCREASE REQUESTS) FILED SINCE 2012?

A. Columbia has consistently filed base rate cases to primarily recover the capital cost of its pipeline infrastructure replacement program and O&M expenses, which consistently increased/impacted customers' rates. The following table summarizes base rate cases filed since 2012 and the corresponding revenue increases requested:[1]

Docket No.	FPFTY ended	Revenue Increase Request	Annual Revenue Increase
R-2012-2321748	June 30, 2014	$77.31 M	20.61%
2013	BRC not filed	-	-
R-2014-2406274	December 31, 2015	$54.11 M	11.09%
R-2015-2468056	December 31, 2016	$46.17 M	8.63%
R-2016-2529660	December 31, 2017	$55.26 M	11.23%
2017	BRC not filed	-	-
R-2018-2647577	December 31, 2019	$46.94 M	8.16%
2019	BRC not filed	-	-
R-2020-3018835	December 31, 2021	$100.44 M	17.50%
R-2021-3024296	December 31, 2022	$98.28 M	19.91%
R-2022-3031211	December 31, 2023	$81.51 M	10.09%

The above table shows that Columbia has filed eight base rate cases in a span of eleven years for a total additional revenue increase of $560.02 million.

[1] Commission orders entered in the respective docket numbers (except for Docket No. R-2022-3031211) listed in the table.

Q. DO YOU BELIEVE COLUMBIA WILL CONTINUE FILING BASE RATE CASES AS DONE HISTORICALLY AND INCREASE CUSTOMERS' RATES ON A REGULAR BASIS?

A. Yes. Per the response to I&E-RE-107-D, I believe Columbia's gas pipeline infrastructure replacement/modernization program will take at least 30 years to complete, because, as of January 1, 2022, Columbia has estimated a total 2,967 miles of distribution main pipeline to be replaced and projects a yearly replacement rate of approximately 100 miles of main. Additionally, the Company presented a table showing a yearly budgeted capital investment plan for ten years for the remaining pipeline modernization program (I&E Exhibit No. 1, Schedule 1, pp. 1-2):

Year	Budgeted Capital Investment	Year	Budgeted Capital Investment
2022	$275.80 M	2027	$401.00 M
2023	$342.40 M	2028	$418.50 M
2024	$341.40 M	2029	$436.70 M
2025	$371.50 M	2030	$455.80 M
2026	$384.90 M	2031	$475.80 M

Columbia has planned a total of $3,903.80 million capital investments at an annual average of $390.38 million, which would likely require the Company to file a rate case every year, primarily to meet the shortfall in the operating income and overall rate of return due to the planned significant capital investments (increase in rate base value). As a result of this plan, the customers' rates will continue to increase year after year. In this proceeding the Company has claimed rate base additions of $348.35 million and overall rate increase of 10.09% in customers' rates. Assuming the Company's capital investments continue as projected at an annual average of $390.38 million, the Company would seek a revenue (rate) increase of approximately 10% every year so, in total, approximately an *80% increase in rates from 2024 through 2031* (in eight years) in addition to the current 10% increase in rates sought in this proceeding.

Q. DID COLUMBIA ANALYZE THE IMPACT OF THE REQUESTED RATE INCREASE IN CUSTOMERS' RATES IN THIS PROCEEDING?

A. No. Columbia witness Kempic states the Company believes that maintaining and growing its infrastructure modernization program via its large-scale pipeline replacement program provides the ancillary benefit of energizing the local economies through the wages paid to the skilled labor necessary to complete the work (Columbia Statement No. 1, p. 7). Additionally, in its response to I&E-RE-106-D(C), Columbia states that the utility rates of other gas distribution companies have not been reviewed or considered as part of this proceeding. Therefore, Columbia has not analyzed its distribution rates with or without this increase relative to the current distribution rates of other gas distribution companies in Pennsylvania for comparison (I&E Exhibit No. 1, Schedule 1, p. 5).

Q. HOW DO COLUMBIA'S RATES COMPARE WITH OTHER GAS DISTRIBUTION UTILITIES IN PENNSYLVANIA?

A. Based on the information provided by UGI Utilities - Gas Division in the ongoing base rate case filing,[2] the following table shows a monthly average bill comparison of major Pennsylvania natural gas distribution companies (NGDCs):

NGDC	**Average Monthly Bill of Residential Heating Customer at 73.1 Ccf/Month**
Peoples Natural Gas	\$89.51
PECO Energy - Gas	\$91.14
UGI Utilities - Gas	\$98.62 (at proposed full revenue increase \$105.01)
Peoples Gas	\$100.87
Columbia Gas	**\$124.71** **(**without considering increase as proposed in this proceeding)
PGW	\$133.34

Q. WHY ARE YOU DISCUSSING COLUMBIA'S HISTORIC BASE RATE CASE FILING FREQUENCY AND POTENTIAL FUTURE FILINGS?

A. As discussed above, since Columbia has not considered the impact of the rate increase proposed in this filing nor considered the historic rate increase impact on customers and the future potential rate increase scenario, I would like to bring this analysis to the attention of the Commission. This is important information to

[2] UGI Utilities – Gas Division base rate case filing (Statement No. 1, p. 10 at Docket No. R-2021-3030218).

consider while evaluating the requests made in this base rate case to properly consider and protect the interest of Columbia ratepayers.

SUMMARY OF ADJUSTMENTS

Q. PLEASE SUMMARIZE YOUR RECOMMENDED ADJUSTMENTS.

A. The following table summarizes my recommended adjustments:

	Company Claim	I&E Recommended Allowance	I&E Adjustment
O&M Expenses:			
Rate Case Expense	$1,254,200	$694,387	($559,813)
Payroll Expense	$36,719,966	$35,648,708	($1,071,258)
Incentive Compensation	$2,570,000	$1,425,948	($1,144,052)
Employee Benefits	$7,923,000	$7,006,622	($916,378)
Payroll/FICA Taxes	$2,867,303	$2,705,634	($161,669)
Outside Services	$29,660,205	$27,574,732	($2,085,473)
Injuries and Damages	$348,384	$311,042	($37,342)
Advertisement Expense	$683,312	$435,666	($247,646)
NCSC Allocated Compensation	$6,380,000	$2,326,870	($4,053,130)
Other Adjustments	$15,813,021	$14,275,000	($1,538,021)
COVID-19 Deferral Amortization	$1,012,091	$708,091	($304,000)
Total O&M Adjustments			**($12,118,782)**

OVERALL I&E POSITION

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT?

A. I&E's total recommended revenue requirement for the Company is $848,151,844.

This recommended revenue requirement represents an increase of $33,646,405 to the Company's claimed present rate revenues of $814,505,439 to be recovered in the new rates effective January 1, 2023 (the first day of the FPFTY). This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses, and those recommended adjustments made in the testimony of I&E witness Christopher Keller (I&E Statement No. 2). A calculation of the I&E recommended revenue requirement is shown below:

Columbia Gas of PA, Inc.		**TABLE I**			
R-2022-3031211		**INCOME**	**SUMMARY**		
	12/31/23	INVESTIGATION & ENFORCEMENT			
	Proforma	[---			
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	814,505,439	0	814,505,439	33,646,405	848,151,844
Deductions:					
O&M Expenses	480,781,573	-11,957,113	468,824,460	421,936	469,246,396
Depreciation	116,724,231	0	116,724,231		116,724,231
Taxes, Other	3,580,973	-161,669	3,419,304	0	3,419,304
Income Taxes:					
Current State	1,427,695	1,210,667	2,638,362	3,319,124	5,957,486
Current Federal	10,095,161	2,290,704	12,385,865	6,280,122	18,665,987
Deferred Taxes	20,770,893	0	20,770,893		20,770,893
ITC	-221,354	0	-221,354		-221,354
Total Deductions	633,159,172	-8,617,411	624,541,761	10,021,182	634,562,943
Income Available	181,346,267	8,617,411	189,963,678	23,625,222	213,588,900
				23,625,223	213,588,901
Rate Base	2,958,295,013	0	2,958,295,013	0	2,958,295,013
Rate of Return	6.13%		6.42%		7.22%

<u>Effective Date of New Rates:</u>

Q. WHAT IS THE FIRST DAY OF COLUMBIA'S CLAIMED FPFTY?

A. The first day of Columbia's FPFTY is January 1, 2023.

Q. WHAT IS THE DATE ON WHICH COLUMBIA PROPOSES TO MAKE AN INCREASE IN RATES EFFECTIVE IN THIS PROCEEDING?

A. Columbia has proposed new rates effective date of May 17, 2022 in the Supplemental No. 337 to Tariff Gas Pa. P.U.C. No. 9 (Columbia Exhibit No. 14, Schedule 2, Attachment B, pp.1-19), which is suspended until December 17, 2022.

Q. WHAT IS THE COMPANY'S RATIONALE FOR PROPOSING THAT RATES SHOULD GO INTO EFFECT ON DECEMBER 17, 2022?

A. In response to I&E-RE-110-D, the Company indicates that the effective date of new rates will be December 17, 2022 because the Company has filed Supplement No. 342 to Tariff Gas Pa. P.U.C. No. 9, suspending the proposed rates and rules contained in Supplement No. 337 to Tariff Gas Pa. P.U.C. No. 9 until December 17, 2022 that the Commission has approved (I&E Exhibit No. 1, Schedule 2, p. 1).

Q. PLEASE CONTINUE.

A. In response to I&E-RE-109-D(A), the Company states that by regulation, a historic test year is required to be the 12-month period ending no later than 120 days prior to the date of the rate filing and the future test year should be the immediately following 12-month period. Additionally, Columbia states that by statute, the FPFTY should be the 12-month period *beginning with the first month that new rates will be placed into effect after the full suspension period*. Columbia further, states that as the full statutory suspension period concludes in December 2022, the FPFTY (the 12-month period) begins January 1, 2023 (I&E Exhibit No. 1, Schedule 2, pp. 2-3).

In response to I&E-RE-115, Columbia states that it has filed a base rate case in March 2022 in compliance with the Public Utility Code and is not agreeable to voluntarily extending the effective date for new rates beyond the effective date set forth in the Commission's April 14, 2022 Order issued in the instant docket (I&E Exhibit No. 1, Schedule 2, pp. 4-5).

Q. DO YOU AGREE THAT RATES SHOULD GO INTO EFFECT BEFORE THE BEGINNING OF THE FPFTY (JANUARY 1, 2023) IN THIS PROCEEDING?

A. No. I am recommending that any allowable rate change go into effect on January 1, 2023.

Q. WHY DO YOU BELIEVE THAT INCREASING RATES BEFORE JANUARY 1, 2023, THE BEGINNING OF THE FPFTY, WOULD BE IMPROPER?

A. It would be unfair and unreasonable for the Commission to allow Columbia to make new rates effective on December 17, 2022 because the claims in the rate filing are based on changes that occur in the FPFTY. The higher rates would not be applicable to the period December 17, 2022 through December 31, 2022 (a 15-day period). If Columbia is permitted to charge new rates effective December 17, 2022 instead of January 1, 2023, then at the full revenue increase request of $82,151,953, the Company would recover an unsupported and unreasonable additional revenue increase of $3,376,108 (($82,151,953 ÷ 365) x 15) for that 15-day period from ratepayers. My recommendation is more appropriate, fair, and logical because the ratemaking calculation (projection) for new rates includes the 12-month FPFTY beginning January 1, 2023 and not December 17, 2022.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATION.

A. Considering the above discussion and in the interest of customers, I recommend that Columbia voluntarily make the new rates effective January 1, 2023 (the first day of the FPFTY) instead of on December 17, 2022, to avoid any unreasonable and unjustified rate impact on ratepayers.

<u>RATE CASE EXPENSE</u>

Q. BRIEFLY DESCRIBE THE NATURE AND TYPES OF EXPENDITURES TYPICALLY ALLOWED AS A PART OF A REGULATED UTILITY'S OVERALL RATE CASE EXPENSE.

A. The nature and types of individual expenditures that comprise a utility's allowable claim for rate case expense are those directly incurred to compile, present, and defend a utility's request for a base rate increase before the Commission. The actual expenditures and estimated costs typically found in an allowable rate case expense claim include legal fees for outside counsel, fees to outside consultants, and the cost of printing, document assembly, and postage.

Q. HOW HAS THE COMMISSION TRADITIONALLY TREATED RATE CASE EXPENSE FOR RATEMAKING PURPOSES?

A. The Commission has historically stated that it considers prudently incurred rate case expense as an ongoing expense, occurring at irregular intervals, related to the rendering of utility service. The Commission has also cited the importance of considering the involved utility's history regarding the frequency of rate case filings as an essential element to determine the normalized level of rate case expense for ratemaking purposes.

Q. HOW IS THE FREQUENCY OF RATE CASE FILINGS DETERMINED?

A. The frequency is determined by calculating the average number of months between the utility's previous rate case filings.

Q. WHAT IS THE COMPANY'S CLAIM FOR RATE CASE EXPENSE?

A. The Company's FPFTY claim for rate case expense is $1,254,200 (Columbia Exhibit No. 104, Schedule 1, p. 2).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company has normalized the entire estimated rate case expense of $1,254,200 over a 12-month period based on prior base rate case filing experience and the expectation of annual future base rate case filings (Columbia Statement No. 4, p. 21).

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No. I disagree with the Company's claimed total rate case expense of $1,254,200, and I disagree with applying a 12-month normalization period, because it is not supported by the Company's historic actual rate case expenses and the historic rate case filing frequency.

Q. WHAT IS YOUR RECOMMENDATION FOR RATE CASE EXPENSE?

A. I recommend that the Company's total rate case expense first be adjusted based on the 2020 fully litigated rate case actual expense and then normalized over a period of 16 months resulting in a FPFTY allowance of $694,387 ((adjusted expense of $925,850 ÷ 16 months) x 12 months), or a reduction of $559,813 ($1,254,200 - $694,387) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. First, in response to I&E-RE-04-D and I&E-RE-05-D (revised), the Company provided a breakdown of actual rate case expense incurred and claimed in the last three base rate cases as shown in the table below (I&E Exhibit No. 1, Schedule 3, pp. 2 and 4):

	R-2018-2647577	**R-2020-3018835**	**R-2021-3024296**	**R-2022-3031211 Claimed**
Gannett Fleming	$35,067	$38,185	$37,106	$45,000
Moul & Associates	$56,396	$96,188	$66,375	$65,000
Post & Schell	$476,870	$572,287	$413,420	$900,000
Legal Notices	$20,770	$15,051	$12,722	$20,000
Travel Expenses	$9,224	$1,085	$0	$5,000
Miscellaneous	$13,259	$1,126	$0	$25,000
Concentric Energy Advisors	$0	$40,000	$0	$35,000
James Cawley	$0	$18,600	$0	$0
Green Efficiency Group	$0	$0	$0	$159,200
Total actual expense	**$611,586**	**$782,522**	**$529,623**	**-**
Total expense claimed	$1,030,000	$1,060,000	$1,060,000	$1,254,200
% of actual expense incurred	**59.38%**	**73.82%**	**49.96%**	**-**
Case resolution	Settled	Fully litigated	Settled	-

The above table shows that historically the Company's rate case expense claims are overstated irrespective of the method of case resolution. Similarly, in the 2014, 2015, and 2016 rate cases, the Company incurred significantly lower rate case expense than the claimed amount as summarized in the table below (I&E Exhibit No. 1, Schedule 3, pp. 6-7):

	R-2014-2406274	**R-2015-2468056**	**R-2016-2529660**
Total expense claimed	$1,046,000	$1,030,000	$1,030,000
Total actual expense	$458,569	$571,995	$567,489
% of actual expense incurred	**43.84%**	**55.53%**	**55.10%**
Case resolution	Settled	Settled	Settled

Considering the Company's consistent under spending of claimed rate case expenses, I recommend adjusting the FPFTY claimed expense of $1,254,200 to $925,850 ($1,254,200 x 0.7382) based on the 2020 fully litigated rate case actual expense experience factor of 73.82% (shown above) to reduce the unreasonable impact to O&M expense resulting from the Company's historic overstatement of costs.

Second, the Company's proposed normalization period fails to properly rely upon the historic data and is speculative in nature. In contrast to the Company's claimed 12-month normalization period, I recommend a 16-month normalization period, which is reasonable and is validated by the Company's recent filing history as shown in the table below:

Docket No.	**Filing Date**	**Filing Interval –**	**Average of three Intervals – Months**
R-2022-3031211	March 18, 2022	12 months	16
R-2021-3024296	March 30, 2021	11 months	
R-2020-3018835	April 24, 2020	25 months	
R-2018-2647577	March 16, 2018		

The average historic filing frequency is 16 months ((12 + 11 + 25) = 48 ÷ 3), which supports a normalization period of 16 months. The Company's rate case expense normalization of 12 months is speculative and is not supported by the historic filing frequency, and the Company is merely relying on its expectation of annual future base rate case filings. As stated above, I acknowledge that the Company is expected to file yearly base rate cases, however, it is appropriate to utilize the historic filing frequency until the data reflects 12-month historic intervals.

Q. SUMMARIZE YOUR RECOMMENDED ADJUSTMENT.

A. The following table summarizes the calculation of my recommended allowance and adjustments:

1. FPFTY rate case expense claim	$1,254,200
2. Allowance at 73.82%	$925,850
3. Expense adjustment	($328,350)
4. Adjusted rate case expense	$925,850
5. Normalization adjustment	($231,463)
6. Normalized allowance	$694,387
7. Total Adjustment (3 + 5)	($559,813)

Q. HAVE OTHER UTILITIES BEEN GRANTED A NORMALIZATION PERIOD BASED ON SPECULATION OF FUTURE FILINGS, AND IF SO, WHAT WAS THE RESULT?

A. Yes. In 2012, the Commission granted PPL Electric Utilities Corporation (PPL) permission to normalize its rate case expense over a 24-month period based on the expected timing of future base rate case filings.[3] That particular base rate case was filed on March 30, 2012; however, PPL did not file its next rate case until

[3] PA PUC v. PPL Electric Utilities Corporation, Docket No. R-2012-2290597, pp. 47-48 (Order Entered December 28, 2012).

March 31, 2015, which was 36 months after the 2012 rate case filing. It should be noted that I&E's recommended normalization period in the 2012 PPL proceeding was a 32-month interval based on the Company's historic filing frequency.[4] I&E's recommendation in that instance produced a much more accurate result than the Company's stated future intention to file a rate case.

Q. ARE THERE ANY RECENT COMMISSION DECISIONS THAT SUPPORT YOUR RECOMMENDATION FOR A RATE CASE FILING INTERVAL BASED ON HISTORIC FILING FREQUENCY?

A. Yes. Since the 2012 PPL proceeding, there have been three cases in which the Commission has supported I&E's recommendation based upon historic filing frequency. In a base rate case filed by Emporium Water Company, the Commission adopted I&E's recommended historic filing frequency.[5] Additionally, in an even more recent decision in the City of DuBois base rate case, the Commission agreed with I&E's recommendation to use an historic filing frequency.[6]

In the Emporium Water Company base rate case, the Commission found in favor of I&E's recommendation of a five-year (60-month) normalization period based on an historic average filing frequency that was rounded down from 64

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4 I&E Statement No. 2, pp. 13-14 at Docket No. R-2012-2290597.

5 PA PUC v. Emporium Water Company, Docket No. R-2014-2402324, p. 50 (Order Entered January 28, 2015).

6 PA PUC v. City of DuBois - Bureau of Water, Docket No. R-2016-2554150, pp. 65-66 (Order Entered March 28, 2017) and PA PUC v. City of DuBois - Bureau of Water, Docket No. R-2016-2554150, p. 13 (Order Entered May 18, 2017).

months. Similarly, in the City of DuBois case, the Commission found in favor of I&E's recommended 64-month normalization period, which matched the actual historic filing frequency.

In Columbia's 2020 base rate case, the Commission adopted I&E's recommendation and indicated that "the normalization period should align with the historic data rather than the Company's assertion" as to when it is likely to file the next base rate case.[7] In that proceeding the Commission agreed with I&E's recommended 20-month normalization period, which was based on Columbia's historic filing frequency. Additionally, in the most recent PECO Energy Company - Gas Division base rate case, the Commission agreed with I&E's recommendation of a five-year (60-month) normalization period based on an historic average filing frequency.[8]

Q. GIVEN THESE COMMISSION ORDERS AND THE COMPANY'S FILING HISTORY, IS THE CLAIMED 12-MONTH RECOVERY PERIOD REASONABLE?

A. No. The Company has not demonstrated that it will file its next base rate case within twelve months of this rate case. My recommended 16-month normalization period is in the public interest as it moderates the Company's historic filing

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[7] PA PUC v. Columbia Gas of PA, Inc., Docket No. R-2020-3018835, pp. 78-79 (Order Entered February 19, 2021).

[8] PA PUC v. PECO Energy Company (Gas Division) Docket No. R-2020-3018929, p. 119 (Order entered on June 22, 2021).

intervals between rate case filings while also being long enough to protect customers from paying an unreasonable rate case expense amount in rates.

PAYROLL EXPENSE

Q. WHAT IS INCLUDED IN THE COMPANY'S CLAIM FOR PAYROLL EXPENSE?

A. The Company's payroll expense claim includes salaries and wages, overtime pay, and premium pay as shown in the breakdown provided in Columbia's filing response to SDR-GAS-RR-026.

Q. WHAT IS THE COMPANY'S CLAIM FOR PAYROLL EXPENSE?

A. The Company is claiming payroll expense of $36,719,966 in the FPFTY (Columbia Exhibit No. 104, Schedule 1, p. 2).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company's claim for the budgeted payroll expense is based on the HTY full-time employee count of 782, which is anticipated to remain at the same level at the end of the FPFTY, and annualization of 3.0% annual pay increases in salaries and wages for union and non-union employees, which includes the normal pay increases to be paid after the end of the FPFTY.

Q. DO YOU AGREE WITH THE COMPANY'S PAYROLL EXPENSE CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND?

A. I recommend an allowance of $35,648,708 for payroll expense, or a reduction of $1,071,258 ($36,719,966 - $35,648,708) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A I recommend adjusting the payroll expense claim for: (1) removing the annualization adjustment for the normal pay increases to be paid after the end of the FPFTY 2023 (i.e. payroll expense for normal pay increases to be incurred or payable on or after January 1, 2024) amounting to $444,966 (Columbia Exhibit No. 104, Schedule 2, p. 1); and (2) a payroll expense adjustment of $626,292 for vacant/unfilled positions due to unpredictable normal vacancies, which occur due to retirements, resignations, transfers, etc. throughout the year.

Q. PLEASE EXPLAIN YOUR RECOMMENDED DISALLOWANCE OF PAY INCREASES THAT WILL GO INTO EFFECT AFTER THE END OF THE FPFTY.

A. It is not appropriate for the Company to claim pay increases that occur or are payable beyond the end of the FPFTY. The Company's FPFTY ends on

December 31, 2023, but the Company has claimed an annualized pay increase amount of $444,966 (Columbia Exhibit No. 104, Schedule 2, p. 1) for raises payable after December 31, 2023 as shown in the calculation provided in the confidential response to I&E-RE-11-D, Attachment A (I&E Exhibit No.1, Schedule 4, p. 3). These 2024 pay increases are outside the FPFTY and should not be allowed for ratemaking purposes. Per ratemaking principles, a company utilizing the FPFTY projections should not be allowed to claim increases in expenditures, plant additions, or projected revenue declines that occur after the end of the FPFTY. Allowing such adjustments that occur after the FPFTY would allow for mismatching periods of revenues and expenses.

A revenue requirement calculated on this basis would recover, dollar-for-dollar, an expense level for labor expense that will never be reached in the FPFTY. Thus, the post-FPFTY pay increase annualization adjustment would result in an unfair and unreasonable burden on ratepayers by establishing an expense recovery in its revenue requirement that is not reflective of the actual FPFTY expense level.

Q. PLEASE EXPLAIN YOUR RECOMMENDED VACANCY ADJUSTMENT.

A. My recommended vacancy adjustment is based on an average of annual normal vacancies experienced in the fiscal years ended November 30, 2020, and November 30, 2021, and the rate for first quarter 2022.[9] For determining an

[9] Fiscal year ended November 30, 2019 was excluded from my calculation since it appears to be an anomaly.

average annual vacancy rate, first I reviewed the Company's history of actual monthly vacant positions for those two years and calculated a monthly vacancy rate based on the actual vacant positions as provided in the Company's confidential response to I&E-RE-13-D, Attachment B (I&E Exhibit No. 1, Schedule 4, p. 8). Next, I determined an annual vacancy rate, and a quarterly rate for the most recently available quarter to reflect the most up-to-date information, by averaging the monthly vacancy rates and then averaged three vacancy rates as summarized in the table below:

Fiscal Year Ended	Average monthly vacancy	Average Vacancy Rate
November 30, 2019	72	
November 30, 2020	53	
November 30, 2021	54	
Q1-FTY 2022 (Dec.-Feb.)	55	54 (53+54+55)/3

I considered the average actual employee vacancy rate of 54 (which produced a 6.90% vacancy rate: Average Vacancy Rate of 54 ÷ FPFTY budgeted employee count of 782) vacant positions in the FPFTY. Lastly, multiplying 54 vacant positions by the average three-month payroll expense of $11,598 [$3,866 ($46,387 ÷ 12)] per employee to account for an average three-month vacancy period (the average time positions remain vacant as explained below) yields a $626,292 reduction in payroll expense to reflect the average time positions remain vacant, which is summarized in the table below:

	CALCULATION	RESULT
EMPLOYEE VACANCY RATE:		
FPFTY Employee Count		782
Average Vacancy Rate		54
EMPLOYEE PAYROLL EXPENSE:		
FPFTY Payroll Expense Claim		$36,719,966
Less Removal of Pay Increase Annualization		$444,966
FPFTY Adjusted Payroll Expense		$36,275,000
Average Per Employee Annual Payroll Exp.	$36,275,000 ÷ 782	$46,387
Average Monthly Payroll per Employee	$46,387 ÷ 12	$3,866
Payroll Expense Reduction for Vacancies	($3,866 x 3) x 54	$626,292
Total Payroll Expense Reduction	$444,966 + $626,292	$1,071,258
I&E Recommended Allowance for Payroll Expense	$36,719,966 - $1,071,258	**$35,648,708**

Q. EXPLAIN YOUR RATIONALE FOR THE VACANCY ADJUSTMENT.

A. The Company budgeted its payroll expense based on the FPFTY total employee count of 782, which Columbia expect to maintain throughout the year. However, considering the Company's historic average vacancy rate of 54 employees as discussed above, it is unreasonable to assume that the Company will fill and maintain 100% full staffing of 782 budgeted positions throughout the FPFTY. The Company will continue to experience an average monthly vacancy rate of 54 employees (6.90% rate) in the FPFTY. Even at the end of the first quarter in the FTY, the Company experienced an average monthly vacancy of 55 employees. These historic vacancy records support my recommended 54 vacant positions for the reduction in payroll expense for the time period that such positions remain unfilled.

It is important to note that there will always be a certain level of normal vacancies due to retirements, resignations, transfers, layoffs, etc., on a day-to-day operating basis, which are unpredictable and there will always be search and placement time involved in filling normal vacancies.

Q. EXPLAIN THE ESTIMATED THREE-MONTH TIME FOR POSITIONS REMAINING UNFILLED.

A. The Company stated in its response to I&E-RE-13-D(E) that the timeline for filling vacancies can vary between approximately 8 weeks to 16 weeks depending on the timing of the vacancies, the number of applicants, and other variables (I&E Exhibit No. 1, Schedule 4, p. 6). The Company has a six-step hiring process listed in I&E-RE-13-D, Attachment D, which supports my recommended timing gap of three months (12 weeks, which is the midpoint between 8 and 16 weeks) between a vacancy date and when a new employee is hired (I&E Exhibit No. 1, Schedule 4, p. 9). Therefore, such vacancies will yield a three-month period of savings in payroll costs, which needs to be reflected for ratemaking to eliminate an unreasonable impact on rates. Additionally, the Company's average vacancy rate of 54 employees is supported by the fact that Columbia did add an average of

{BEGIN PROPRIETARY}

{END PROPRIETARY}

Q. SUMMARIZE YOUR RECOMMENDATION FOR PAYROLL EXPENSE ADJUSTMENTS AND YOUR RECOMMENDED ALLOWANCE.

A. Based on the above discussion concerning my recommendation for payroll expense, the following table shows adjustments to remove Columbia's annualized pay increase (for the period beyond the FPFTY) and to reflect normal vacancies in the FPFTY payroll expense claim:

1. FPFTY Payroll Expense Claim	$36,719,966
2. Removal of Post-FPFTY Pay Increase	$444,966
3. Payroll Expense Reduction for Employee Vacancies	$626,292
4. Total Payroll Expense Adjustment/Reduction (2 + 3)	$1,071,258
5. I&E Recommended Payroll Expense Allowance (1 - 4)	$35,648,708

INCENTIVE COMPENSATION

Q. WHAT IS INCENTIVE COMPENSATION?

A. Incentive compensation consists of payments made to eligible employees that are in addition to the employees' base salaries and wages. An incentive compensation payout is generally based on the achievement of key performance indicators or triggers (customer service, safety, and financial goals) established by the Company or affiliated/parent company.

Q. WHAT IS THE COMPANY'S CLAIM?

A. The Company's incentive compensation claim is $2,570,000 (Columbia Exhibit No. 104, Schedule 1, p. 2).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The estimate for incentive compensation is based on the specific salary and incentive potential for each position in accordance with various cash-based award/incentive programs/plans and on the assumption that the total 782 employee positions will be filled and maintained throughout the FPFTY (I&E Exhibit No. 1, Schedule 5, p. 5). The payment of cash-based incentive compensation is based on achievement of performance targets/triggers during the performance period, such as financial (net operating earnings per share (NOEPS), customer care parameters, and safety measures as detailed in the parent Company's incentive plan, "NiSource Inc. - 2020 Omnibus Incentive Plan" (Columbia filing SDR-GAS-027, Attachment A).

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION?

A. I recommend an allowance of $1,425,948 for incentive compensation, or a reduction of $1,144,052 ($2,570,000 - $1,425,948) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on an incentive compensation payout factor of 4.00% of my recommended payroll (labor) expense allowance. Historically, the Company's average incentive payout ratio is 3.95% of the payroll expense as calculated in the table below (I&E Exhibit No. 1, Schedule 5, pp. 1-3):

Fiscal year	**Total O&M payroll expense**	**Incentive Compensation paid**	**Payout factor on payroll expense**
November 30, 2019	$36,130,190	$1,634,650	4.52%
November 30, 2020	$36,383,823	$1,272,524	3.50%
November 30, 2021	$36,507,407	$1,186,045	3.25%
		Average payout	3.95%

Additionally, the Company has applied **{BEGIN PROPRIETARY}** **{END PROPRIETARY}** on additional labor expense for determining the additional benefits expense, claimed in other adjustments as per the details provided in response to I&E-RE-66-D, Attachment A (I&E Exhibit No. 1, Schedule 5, p. 6). However, the Company has claimed $2,570,000 as a target level payout of incentive compensation, which calculates to a 7.00% payout factor of the FPFTY payroll expense claim of $36,719,966. This target level incentive payout is contingent primarily, on achievement of the financial performance trigger and represents a speculative accrual amount.

Therefore, my recommended allowance for incentive compensation of $1,425,948 (I&E recommended payroll expense of $35,648,708 x payout ratio of 0.04) based on **{BEGIN PROPRIETARY}** **{END PROPRIETARY}** is reasonable and supported by the Company's historic average actual payout factor as shown in the table above.

Q. PLEASE CONTINUE.

A. In response to I&E-RE-14-D(B), the Company states that incentive compensation expense is accrued throughout the plan year and is based on an anticipated achievement of customer, safety, and financial triggers or goals (I&E Exhibit No. 1, Schedule 5, p. 10). Additionally in response to I&E-RE-15-D(C), the Company states that the financial triggers for the incentive payout were $1.25 NOEPS for 2021 and $1.38 NOEPS for 2022 Cash-based Award Programs (I&E Exhibit No. 1, Schedule 5, p. 8). The achievement of these financial performance triggers is dependent on the Company's or parent company's financial results, which is speculative to achieve and only 30% of the FPFTY incentive compensation would be paid independent of meeting the financial performance goal (I&E Exhibit No. 1, Schedule 5, p. 8). Therefore, only 70% of the FPFTY incentive compensation would be paid if the financial trigger (NOEPS) is fulfilled, and the Company did not achieve the financial trigger in 2020 due to COVID-19 pandemic.

Considering the financial trigger condition or contingency for the cash-based award, my recommendation to base FPFTY incentive compensation on the **{BEGIN PROPRIETARY}** **{END PROPRIETARY}** instead of the FPFTY accrual based 7.00% payout factor produces a more appropriate and reasonable estimate for this expense allowance.

EMPLOYEE BENEFITS EXPENSE

Q. WHAT IS INCLUDED IN THE COMPANY'S CLAIM FOR EMPLOYEE BENEFITS EXPENSE?

A. The employee benefits expense claim includes insurance premium costs for health, dental and vision (medical), 401K plan contributions, group life and long-term disability insurance, profit sharing, and other benefits (I&E Exhibit No. 1, Schedule 6, p. 2).

Q. WHAT IS THE COMPANY'S CLAIM FOR EMPLOYEE BENEFITS EXPENSE?

A. The Company is claiming employee benefits expense of $7,923,000 (Columbia Exhibit No. 104, Schedule 1, p. 2). Based on Columbia's response to I&E-RE-18-D, Attachment A, this expense claim is broken down as shown in the table below

(I&E Exhibit No. 1, Schedule 6, p. 5):

Other Benefits	$7,410
Employee Medical Health Insurance	$4,771,733
401K plan	$2,079,360
Dental	$258,780
Group Life Insurance	$165,300
Long Term Disability	$220,020
Profit Sharing	$373,920
Vision	$46,170
Total	$7,922,693

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company's FPFTY claim for employee benefits expense is based on benefits expense budget assumptions provided by AON Hewitt for NiSource as a whole and are allocated to Columbia based on a labor allocation factor (I&E Exhibit No. 1, Schedule 6, p. 4). The budgeted expense claim is also based on a budgeted employee count of 782 to be maintained throughout the FPFTY.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM FOR EMPLOYEE BENEFITS EXPENSE?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR EMPLOYEE BENEFITS EXPENSE?

A. I recommend an allowance of $7,006,622 for benefits expense, or a reduction of $916,378 ($7,923,000 - $7,006,622) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. I am recommending a reduction to the employee benefits expense claim of $7,923,000 in three parts: (1) removal of the profit-sharing cost of $373,920 from benefits expense (I&E Exhibit No. 1, Schedule 6, p. 5); (2) an adjustment to the remaining benefits expense claim of $7,549,080 ($7,923,000 - $373,920) based on a **{BEGIN PROPRIETARY}** **{END PROPRIETARY}** (I&E Exhibit No. 1, Schedule 5, p. 6); and (3) an adjustment for 54 employee vacancies, which occur due to retirements, resignations, transfers, etc. throughout the year as discussed in the payroll section above.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDED ADJUSTMENT TO REMOVE THE PROFIT-SHARING EXPENSE CLAIM OF $373,920?

A. Profit-sharing is determined based on employees' eligibility and performance criteria laid out in the NiSource Inc. - Omnibus Incentive Plan and is typically tied to earning targets and interests of the Company's stockholders. This type of benefit is unrelated to the provision of safe and reliable service. Therefore, ratepayers should not be responsible for paying a benefit available only to certain high-level executive-type positions that is based on a Company's earnings targets rather than goals that benefit ratepayers. Additionally, it is speculative to budget a profit-sharing amount, as the achievement of the Company's earning and financial goals or targets depends on several factors. Therefore, I recommend disallowance of the entire profit-sharing expense claim.

Q. EXPLAIN THE BASIS FOR YOUR SECOND ADJUSTMENT TO BENEFITS EXPENSE BASED ON A BENEFITS EXPENSE TO PAYROLL EXPENSE RATIO.

A. First, historically the Company has incurred, or underspent benefits expense as compared to the plan or budgeted expense level as shown in the table below (I&E Exhibit No. 1, Schedule 6, p. 3):

	2019	2020	2021
Budgeted expense	$6,940,000	$7,227,000	$8,081,000
Actual expense	$6,913,000	$6,711,000	$6,972,000
Variance	($27,000)	($516,000)	($1,109,000)
Underspent %	0.39%	7.14%	13.72%

Second, the Company's actual benefits expense is consistently at approximately 19% of payroll expense in the last three years as shown in the table below (I&E Exhibit No. 1, Schedule 6, p. 2):

	Payroll Expense	Benefits Expense	% of Benefits Expense
2019	$36,130,190	$6,931,682	19.18%
2020	$36,383,823	$6,712,213	18.45%
HTY 2021	$36,507,408	$6,974,756	19.10%

However, the Company has claimed benefits expense at 20.53% and 22.53% of payroll expense in the FTY and FPFTY respectively. Therefore, considering the historic variance in the actual benefits expense as compared to the budgeted amounts as shown in the table above, I recommend adjusting the FPFTY benefits expense claim to 20% of the I&E recommended payroll expense allowance as shown in the table below:

1. FPFTY Benefits Expense Claim	$7,923,000
2. Profit-Sharing Adjustment	$373,920
3. Adjusted Benefits Expense (1 – 2)	$7,549,080
4. I&E Adjustment at 20% of Payroll Expense Allowance of $35,648,708	$7,129,742
5. I&E Recommended Reduction (3 -5)	$419,338

Additionally, the Company has applied **{BEGIN PROPRIETARY}**

{END PROPRIETARY} (I&E Exhibit No. 1, Schedule 5, p. 6).

Q. EXPLAIN YOUR RECOMMENDED VACANCY ADJUSTMENT AS IT APPLIES TO EMPLOYEE BENEFITS EXPENSE.

A. My recommendation is based on an average annual normal vacancy rate of 54 vacant positions in the FPFTY as explained in the payroll section above. I calculated my recommended benefits expense adjustment of ($123,120) for employee vacancies as shown in the table below:

FPFTY Benefits Expense Claim		$7,923,000
Adjusted Benefits Expense After Removal of Profit-Sharing Expense	$7,923,000 - $373,920	$7,549,080
FPFTY Adjusted Benefits Expense	$7,549,080 - $419,338	$7,129,742
Average Annual Benefits per Employee	$7,129,742 ÷ 782	$9,117
Average Monthly Benefits per Employee	$9,117 ÷ 12	$760
Benefits Expense Reduction for Vacancies for 3-Month Period	($760 x 3) x 54	$123,120

Q. SUMMARIZE YOUR RECOMMENDATION FOR EMPLOYEE BENEFITS EXPENSE.

A. Based on the above discussion concerning my recommended benefits expense adjustment and the adjustment for employee vacancies, the total employee benefits expense adjustment and allowance are summarized in the table below:

1. FPFTY Employee Benefits Expense Claim	$7,923,000
2. Adjustment for Removal of Profit-Sharing Expense claim	($373,920)
3. Adjustment for Benefits Expense	($419,338)
3. Adjustment for Employee Vacancies	($123,120)
4. Total Adjustment to Benefits Expense (2 + 3)	**($916,378)**
5. FPFTY Benefits Expense Allowance (1 – 4)	$7,006,622

PAYROLL/FICA TAXES

Q. WHAT IS INCLUDED IN PAYROLL/FICA TAXES?

A. Payroll taxes generally fall into two categories: deductions from employees' salaries and wages, and taxes paid by the employer based on employees' salaries and wages. The Company has made a claim in this filing for the employer's share of those payroll taxes (social security and Medicare taxes, referred to as FICA taxes).

Q. WHAT IS THE COMPANY'S CLAIM FOR FICA TAXES?

A. The Company is claiming FICA tax expense of $2,867,303 calculated at a FICA tax rate of 7.2978% on the payroll and incentive compensation expense claims (Columbia Exhibit No. 106, Schedule 2, pp. 2-3).

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR FICA TAXES?

A. I recommend an allowance of $2,705,634 for FICA tax expense, or a reduction of $161,669 ($2,867,303 - $2,705,634) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. I recommend FICA tax adjustment based on the Company's experienced FICA tax rate of 7.2978% (Columbia Exhibit No. 106, Schedule 2, p. 3) to my recommended payroll expense adjustment of $1,071,258 and incentive compensation adjustment of $1,144,052 as explained separately in the payroll and incentive compensation sections above.

Q. HOW DID YOU CALCULATE YOUR RECOMMENDED ALLOWANCE?

A. Applying the payroll tax rate of 7.2978% to my recommended total payroll expense and incentive compensation adjustments of $2,215,310 ($1,071,258 + $1,144,052) produces a FICA tax reduction of $161,669 ($2,215,256 x 0.072978) that results in FICA tax allowance of $2,705,634.

<u>OUTSIDE SERVICES</u>

Q. WHAT IS OUTSIDE SERVICES EXPENSE?

A. Per Columbia's outside services breakdown of 2019, 2020, and 2021, this expense primarily, includes consultant expenses, legal expenses, construction services, training, management services, leases, and other various categories of outside services (Columbia Exhibit No. 4, Schedule 14, p. 3).

Q. WHAT IS THE COMPANY'S CLAIM FOR OUTSIDE SERVICES?

A. The Company is claiming outside services expense of $29,660,205 (Columbia Exhibit No. 104, Schedule 1, p. 2).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. In response to I&E-RE-21-D, the Company explains that the FTY budgeted outside services expense claim of $28,550,149 is primarily driven by using an inflation factor of 3% between the two periods (HTY to FTY) and additional increases amounting to $2,570,000 in expenses for various programs (I&E Exhibit No. 1, Schedule 7, p. 1). Similarly, per Columbia's response to I&E-RE-22-D, the increase of $1,110,056 between FTY and FPFTY is primarily driven by using an inflation factor of 3% between these two periods (I&E Exhibit No. 1, Schedule 7, p. 2).

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM FOR OUTSIDE SERVICES?

A. No.

Q. WHAT DO YOU RECOMMEND FOR OUTSIDE SERVICES EXPENSE?

A. I recommend an allowance of $27,574,732 or a reduction of $2,085,473 ($29,660,205 - $27,574,732) for outside services expense.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. First, I reviewed the total outside services expense trend for the fiscal years 2019 through 2021 and the projected increases in the FTY and FPFTY claims as shown in the table below (Columbia Exhibit No. 4, Schedule 1, p. 2 and Exhibit No. 104, Schedule 1, p. 2):

2019	2020	2021	FTY	FPFTY
$ 23,300,011	$ 19,532,270	$ 24,751,180	$ 28,550,149	$ 29,660,205
$ Increase/(Decrease)	($3,767,741)	$5,218,910	$3,798,969	$1,110,056
% Increase/(Decrease)	(16.17%)	26.72%	15.35%	3.89%

Per Columbia's response to I&E-RE-20-D(A), Company has revised its 2021 expense from $25,151,180 to $24,751,180 to correct an error in determining a normalized expense level (I&E Exhibit No. 1, Schedule 7, p. 4).

Second, as noted above, the Company explains that the FTY budgeted outside services expense claim of $28,550,149 is primarily, driven by applying an inflation factor of 3% between the two periods (HTY to FTY), which accounts for a blanket inflation related increase of $742,535 (HTY 2021 expense: $24,751,180 x 0.03) and an additional increase of $2,570,000 in expenses for various identified program costs (I&E Exhibit No. 1, Schedule 7, p. 1). Similarly, the increase between FTY and FPFTY of $1,110,056 is primarily driven by using a blanket inflation factor of 3% between the two periods (FTY to FPFTY) amounting to $856,504 (FTY expense: $28,550,149 x 0.03) (I&E Exhibit No. 1, Schedule 7, p. 2). However, there is no breakdown for the FTY and FPFTY outside services expense claims and the basis to support the blanket inflation adjustments. Per Columbia Exhibit No. 4, Schedule 14, p. 3, the Company provided a breakdown for outside services expense incurred in 2019 through 2021 comprised of seventy-seven-line items of expenses (by cost element). The Company, in its response to I&E-RE-23-D, states that such a breakdown for the FTY and FPFTY is not available as it does not budget expenses by each cost element (I&E Exhibit No. 1, Schedule 7, p. 5). In the absence of a specific basis and support for applying a blanket inflation rate of 3% across the board in all cost elements of outside services expense, such an increase is unreasonable and unsupported. Each cost element is a separate expense item and should be evaluated and budgeted on the basis of historic spending level, merit, and future known and measurable changes.

Third, based on the Company's historic budgeted versus actual outside services expense incurred in the fiscal years 2018, 2019, 2020, and 2021, the Company has incurred/spent less than the budgeted amount as shown in the table below (Columbia Statement No. 9, Exhibit NP 1):

	Budgeted	**Actual expense**	**Underspent**	**% underspent**
2018	$22,634,000	$21,352,000	($1,282,000)	5.66%
2019	$23,453,000	$22,850,000	($603,000)	2.57%
2020	$22,167,000	$15,615,000	($6,552,000)	29.56%
2021	$29,086,000	$24,677,000	($4,409,000)	15.16%

Therefore, based on the actual negative variance as compared to the budgeted dollars, it is speculative and unsupported that the Company will incur the entire budgeted outside services expenses in the FTY and FPFTY. Allowing an overstated and unsupported estimated expense claim will unreasonably impact customers' rates.

Considering the above, I am recommending removal of the blanket inflation adjustment of $856,504 in the FPFTY outside services claim and disallowance of the FTY blanket inflation adjustment of $742,535. I accept the Company's FTY known and measurable estimated increases in expenses amounting to $2,570,000 for the six identified expense items/programs.

Q. EXPLAIN HOW YOU CALCULATED YOUR RECOMMENDED ADJUSTMENT?

A. Considering the above discussion, I recommend the HTY 2021 actual expense as the starting base and added the FTY known estimated increases in the expense spending for various programs to determine the FTY allowance amount and then added the differential expense adjustment (net of inflation adjustment) to determine the FPFTY expense allowance as shown in the table below:

1. HTY Expense	$24,751,180
2. Add: Increase in Expenses for known Program Costs	$2,570,000
3. FTY Expense Allowance (1 + 2)	$27,321,180
4. FPFTY Expense Adjustment Net of Inflation ($1,110,056 - $856,504)	$253,552
5. FPFTY Expense Allowance (3 + 4)	$27,574,732
6. FPFTY Expense Claim	$29,660,205
7. FPFTY Recommended Expense Adjustment (5 - 6)	**($2,085,473)**

<u>INJURIES AND DAMAGES</u>

Q. WHAT IS INCLUDED IN THE COMPANY'S CLAIM FOR INJURIES AND DAMAGES EXPENSE?

A. The Company's claim for injuries and damages expense includes auto liability, general liability, workers' compensation, and other related payments.

Q. WHAT IS THE COMPANY'S CLAIM FOR INJURIES AND DAMAGES EXPENSE?

A. The Company's claim for injuries and damages expense is $348,384 (Columbia Exhibit No. 104, Schedule 1, p. 2).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. First, the Company applied a 2021 GDP deflator to the actual expenses of each fiscal year ended November 30, 2017 through November 30, 2021 and calculated the five-year average of $327,676 using the inflated actual expenses for determining the normalized HTY 2021 injuries and damages expense (Columbia Exhibit 4, Schedule 2, p. 11). Then, the Company applied a 2022 average inflation index of 3.98% to the HTY amount of $327,676 to determine the incremental FTY claim and further, applied a 2023 average inflation index of 2.25% to the FTY claim of $340,718 to determine the FPFTY claim of $348,384 (Columbia Exhibit No. 104, Schedule 2, p. 7).

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND FOR INJURIES AND DAMAGES EXPENSE?

A. I recommend an allowance of $311,042 for injuries and damages expense, or a reduction of $37,342 ($348,384 - $311,042) to the Company's claim.

Q. WHAT IS THE BASIS OF YOUR RECOMMENDATION?

A. I disagree with the Company's method of calculating its average of five-year inflated actual expenses and the further increases by applying a 2021 and 2022 average inflation index to the inflated average amount of $327,676 to determine the FPFTY claim of $348,384.

In the response to I&E-RE-28-D(B), the Company states that a five-year average, unadjusted for inflation, will not provide an appropriate level of cash payments for 2020-2021 costs. I accept that the cash payments incurred five years ago to repair damaged property will cost more today due to inflation (I&E Exhibit No. 1, Schedule 8, p. 1). However, to determine an appropriate allowance for the FPFTY injuries and damages expense, I calculated an average of last five years' (2017 through 2021) actual payments without an inflation adjustment, which results in my recommended allowance of $311,042 [($283,553 + $225,982 +

$397,834 + $441,145 + $206,698) ÷ 5] to even out historic highs and lows of actual payments.

Q. DO YOU HAVE ANY OTHER REASONS SUPPORTING YOUR RECOMMENDATION TO APPLY A FIVE-YEAR ACTUAL EXPENSE AVERAGE FOR THE FPFTY RECOMMENDED ALLOWANCE?

A. Yes. Historically, the Company has incurred less expense in the last three fiscal years out of four fiscal years as compared to the budgeted amounts, which is shown in the table below (Columbia Statement No. 9, Exhibit NP 1):

	Budgeted Expense	**Actual Expense**	**Underspent**	**Variance**
2018	$400,000	$270,000	($130,000)	(32.50%)
2019	$400,000	$512,000	$112,000	28.00%
2020	$400,000	$317,000	($83,000)	(20.75%)
2021	$300,000	$260,000	($40,000)	(13.33%)

Additionally, it is pertinent to note that Company witness Anstead states that Columbia continues to enhance its culture of safety for customers, communities, and employees. Employee safety has significantly improved as Columbia has experienced a reduction in Occupational Safety and Health Administration (OSHA) recordable injuries. For comparison, at the end of 2006, Columbia had 48 OSHA recordable injuries, while this past year in 2021 that number was 10 OSHA recordable injuries, which is a reduction in injury frequency of 79% (Columbia Statement No. 14, p. 38).

ADVERTISEMENT EXPENSE

Q. WHAT IS INCLUDED IN THE COMPANY'S CLAIM FOR ADVERTISEMENT EXPENSE?

A. The Company's claim for advertisement expense includes advertisements in newspapers, television, radio, magazines, and other miscellaneous advertisements concerning public health and safety, educational, billing, rates, gas supply, etc.

Q. WHAT IS THE COMPANY'S CLAIM FOR ADVERTISEMENT EXPENSE?

A. The Company's claim for advertisement expense is $683,312 (Columbia Exhibit 104, Schedule 1, p. 2).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company has incurred a total advertisement expense of $571,123 in the HTY 2021 and after a ratemaking adjustment for non-recoverable advertisement expense of $171,829, the HTY normalized expense was $399,294 (Columbia Exhibit No. 4, Schedule 2, p. 15). Per Company's response to I&E-RE-38-D, the FTY and FPFTY budgeted expenses are grounded in a trailing 12-month historical spend (I&E Exhibit No. 1, Schedule 9, p. 1).

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND FOR ADVERTISEMENT EXPENSE?

A. I recommend an allowance of $435,666 for advertisement expense, or a reduction of $247,646 ($683,312 - $435,666) to the Company's claim.

Q. WHAT IS THE BASIS OF YOUR RECOMMENDATION?

A. I recommend advertisement expense based on three-year average of the actual expense to smooth out high and low in this expense experienced as shown in the table below:

Fiscal year	Expense
2019	$193,037
2020	$714,668
2021	$399,294
FTY	$687,332
FPFTY	$683,312

In response to I&E-RE-38-D, the Company states that the FPFTY budgeted expense of $866,000 is in line with actual spending from 2020 and 2021, and the FPFTY budget is held consistent with its 2022 calendar year budget. However, this statement does not reconcile with the actual total advertisement expense of $551,000 incurred in 2021 as shown in Company witness Paloney's testimony (Columbia Statement No. 9, Exhibit NP 1). Additionally, the increases in advertisement expense claims are not supported and reliable estimates based on the HTY 2021 recoverable advertisement expense because Columbia did not provide any support with a breakdown of expenses claimed in the FTY and FPFTY in response to I&E-RE-38-D(B) (I&E Exhibit No. 1, Schedule 9, p. 1).

NCSC ALLOCATED COMPENSATION

Q. WHAT IS INCLUDED IN NCSC ALLOCATED COMPENSATION EXPENSE?

A. NiSource Corporate Services Company (NCSC) is a subsidiary of the parent company NiSource and an affiliate of Columbia. NCSC provides a range of business operations and management services to the Company, and Columbia is billed under contract billing and convenience billing for the services rendered. NCSC allocates employee payroll, benefits, incentive compensation, profit-sharing, and stock rewards expenses based on allocation factors and other bases (Columbia Statement No. 4, pp. 16-17).

Q. WHAT IS THE COMPANY'S CLAIM FOR NCSC ALLOCATED INCENTIVE COMPENSATION, PROFIT-SHARING, AND STOCK REWARDS EXPENSES?

A. The Company is claiming allocated incentive compensation of $3,500,000, profit-sharing of $215,000, and stock rewards expense of $2,665,000 amounting to a total of $6,380,000, which is included in the total NCSC expense claim (Columbia Exhibit No. 104, Schedule 1, p. 2, ln. 20).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. As discussed above, these expenses are a part of the NCSC employees' service charge, based on a budgeted allocation in the FTY and FPFTY claims based on the HTY 2021 normalized expense level and ratemaking adjustments.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM FOR NCSC - INCENTIVE COMPENSATION, PROFIT SHARING, AND STOCK REWARDS EXPENSES ?

A. No.

Q. WHAT DO YOU RECOMMEND FOR NCSC - INCENTIVE COMPENSATION, PROFIT SHARING, AND STOCK REWARD EXPENSES ?

A. I recommend an allowance of $2,326,870 or a reduction of $4,053,130 ($6,380,000 - $2,326,870) to NCSC allocated compensation expense broken down as follows:

(a) Allowance of $2,326,870 or a reduction of $1,173,130 ($3,500,000 - $2,236,870) to the Company's claim for NCSC incentive compensation.

(b) Allowance of $0 or a reduction of $215,000 ($215,000 - $0) to the Company's claim for NCSC profit-sharing expense.

(c) Allowance of $0 or a reduction of $2,665,000 ($2,665,000 - $0) to the Company's claim for NCSC stock rewards expense.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. <u>Incentive Compensation:</u>

My recommendation is based on an allocated incentive compensation payout factor of 1.12% for NCSC base payroll (labor) expense. Historically, the NCSC's average incentive payout ratio is 1.12% ((1.13% + 1.31% + 0.93%) ÷ 3) of the total base payroll expense for the last three fiscal years (2019, 2020, and 2021) as shown in the table below (I&E Exhibit No. 1, Schedule 5, pp. 11-12 and I&E Exhibit No. 1, Schedule 10, pp. 3-5):

Fiscal Year*	Total Base Payroll	Incentive Compensation*	Payout Factor on Payroll Expense
November 30, 2019	$164,112,582	$1,862,432	1.13%
November 30, 2020	$165,772,355	$2,166,271	1.31%
November 30, 2021	$166,635,538	$1,547,165	0.93%
FTY	$197,613,381	$3,400,000	1.72%
FPFTY	$207,756,275	$3,500,000	1.68%

*Fiscal years 2019-2021 reflect actual incentive compensation payout (based on O&M expense allocation factor).

The Company has claimed a significantly higher $3,500,000 in the FPFTY for NCSC incentive compensation expense, which calculates to a 1.68% payout factor on the base payroll expense. The FTY and FPFTY budgeted level of incentive payout is contingent, primarily, on achievement of the financial performance trigger and represent speculative accrual amounts.

Therefore, my recommended allowance for incentive compensation of $2,326,870 (NCSC base payroll expense of $207,756,275 x payout ratio of

0.0112), based on the last three years' average payout factor of 1.12% is reasonable and supported by NCSC's historic actual payout factors as shown in the table above. Applying an average payout factor produces a more representative and reasonable expense allowance as it is linked to the base payroll cost instead of recommending an average incentive payout based on last three years' actual incentive compensation. As discussed in the incentive compensation section above, I reiterate that the incentive compensation expense is accrued throughout the plan year and is based upon the anticipated achievement of customer, safety, and financial triggers or goals (I&E Exhibit No. 1, Schedule 5, p. 10). Additionally, the achievement of financial triggers for the incentive payout were $1.25 NOEPS for 2021 and $1.38 NOEPS for 2022 cash-based Award Programs (I&E Exhibit No. 1, Schedule 5, p. 8), which are dependent on the parent company's financial results and speculative to achieve. About 70% of the FPFTY incentive compensation would be paid only if the financial trigger (NOEPS) is fulfilled (I&E Exhibit No. 1, Schedule 5, p. 8).

Considering the financial trigger condition or contingency for the cash-based award, my recommendation for the FPFTY incentive compensation based on the historic average actual payout factor of 1.12% instead of the FPFTY accrual based a 1.68% payout factor produces a more appropriate and reasonable estimate for this expense allowance.

Profit-Sharing:

Per the Company's response to I&E-RE-19-D, the FPFTY NCSC expense claim includes profit-sharing expense of $215,000 (I&E Exhibit No. 1, Schedule 10, p. 6). As discussed in employee benefit section above, I reiterate that profit sharing is determined based on an employees' eligibility and performance criteria laid out in the NiSource Inc. - Omnibus Incentive Plan and is typically tied to earning targets and interests of the Company's stockholders. This type of benefit is unrelated to the provision of safe and reliable service, and therefore, ratepayers should not be responsible for paying a benefit available only to certain high-level executive-type positions based on earning targets rather than goals that benefit ratepayers. Additionally, it is speculative to budget a profit-sharing amount as the achievement of the Company's earning and financial goals, or targets depend on several factors. Therefore, I recommend disallowance of the entire profit-sharing expense claim from the FPFTY NCSC expense claim.

Stock Rewards:

Per Company's response to I&E-RE-19-D, the FPFTY NCSC expense claim includes stock rewards expense of $2,665,000 (I&E Exhibit No. 1, Schedule 10, p. 6). Stock rewards are a type of incentive compensation linked to financial goals and targets such as earnings per share, rate of return on equity, or appreciation of the parent company's common stock. These goals are specifically shareholder-oriented goals and not ratepayer goals. Thus, stock rewards should not be funded by ratepayers. Allowing this claim in rates would result in higher rates and revenues at the expense of ratepayers, which would directly boost the parent company's financial goals. Additionally, it must be noted that stock rewards are limited to certain top-level executives, and therefore, it is not immediately obvious how stock rewards expense is related to providing safe and reliable service to ratepayers. Therefore, I recommend disallowance of the entire stock rewards expense claim from the FPFTY NCSC expense claim.

<u>OTHER ADJUSTMENTS</u>

Q. WHAT IS INCLUDED IN OTHER ADJUSTMENTS?

A. The Company's other adjustments expense claim consists of additional/new expenses for various safety initiative programs and additional labor and benefits expense (Columbia Exhibit No. 104, Schedule 2, p. 18).

Q. WHAT IS THE COMPANY'S CLAIM FOR OTHER ADJUSTMENTS EXPENSE?

A. The Company's claim for other adjustments is $15,813,021 (Columbia Exhibit No. 104, Schedule 2, p. 18).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The following table shows a breakdown of other adjustments expense made up of safety initiatives, additional budgeted increases, or new program costs, and the additional labor and benefits expense (Columbia Exhibit No. 104, Schedule 2,

p. 18):

Cross Bores Program Acceleration	$2,700,000
Abnormal Operating Conditions Remediation	$600,000
Picarro Leak Detection System	$10,900,000
Additional Safety Staff Positions (Five)	$417,000
Natural Gas/Methane Gas Detectors	$13,000
Education Costs	$33,500
Blackline Safety Devices	$265,000
Total	**$14,928,500**
Additional Labor Expense	$672,181
Additional Benefits Expense	$212,340
Total Other Adjustments - FPFTY Claim	**$15,813,021**

Q. DO YOU AGREE WITH THE COMPANY'S OTHER ADJUSTMENTS EXPENSE CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND FOR OTHER ADJUSTMENTS?

A. I recommend an allowance of $14,275,000 for other adjustments, or a reduction of $1,538,021 ($15,813,021 - $14,275,000) to the Company's claim.

Q. ARE YOU ADDRESING ALL EXPENSE ITEMS OF OTHER ADJUSTMENTS?

A. No. I am addressing the Picarro Leak Detection System expense claim of

$10,900,000 (recommending a reduction of $620,000), education costs of $33,500 (recommending disallowance of this entire amount), and additional labor and benefits expense of $884,521 ($672,181 + $212,340) (again, recommending disallowance of this entire amount). These recommended adjustments add up to a total Other Adjustments recommended adjustment of $1,538,021 ($620,000 + $33,500 + $884,521).

Q. EXPLAIN THE BASIS OF YOUR RECOMMENDATION FOR EACH EXPENSE ITEM.

A. <u>Picarro Leak Detection System:</u>

In response to I&E-RE-69-D(D), the Company states that there will be a one-time cost of approximately $620,000 for tooling, fleet and the initial training of the additional staff required to support the Picarro Leak Detection System (Columbia Exhibit No.1, Schedule 11, p. 2). Columbia expects $10,280,000 (out of the total claimed expense of $10,900,000) to reoccur annually for the costs related to the additional staff required to investigate and repair the additional leaks found with the Picarro program. Therefore, I recommend removal of the one-time, nonrecurring expense of $620,000 from the O&M expense claim of $10,900,000, which unreasonably inflates the Picarro system expense claim in the FPFTY ratemaking calculation and will continue to be embedded in the rates in the period subsequent to the FPFTY, even though it is a non-recurring expense.

Education cost:

In response to I&E-RE-72-D, the Company states that Columbia will provide customer education for the Renewable Natural Gas (RNG) choice and the proposed Green Path Rider through multiple channels to make sure that the Company reaches customers through their preferred channel. The Company plans to spend $22,000 on residential customers, using a combination of email and paid social media messages and $11,200 on commercial customers using direct mail and commercial publications (I&E Exhibit No. 1. Schedule 11, p. 3).

On April 26, 2022, the Company filed with the Commission Tariff Supplement No. 343 to Tariff Gas Pa. P.U.C. No. 9, along with the Filing Requirements of 52 Pa Code § 53.52 (at Docket No. R-2022-3032167), seeking approval to implement a five-year pilot program called the Green Path Rider. In this filing response 53.52(a)(5), p. 17, the Company states that the proposed tariff change will not directly affect Columbia's revenues. However, Columbia claimed $33,500 in FPFTY O&M expense for customer education in this proceeding. Per Columbia's Green Path Rider filing response 53.52(a)(10), Columbia will provide education and awareness through channels such as social media apps, email, direct mail, website and/or newsletters, which would provide education to customers to learn about the RNG program and ultimately choose to participate in the program options.

Since the Company's application for Green Path Rider (RNG program) is separately docketed and pending Commission's consideration and approval, it is inappropriate to allow education costs related to the RNG program in this proceeding as there is no certainty that this program will be approved by the Commission. Additionally, this program cost relates to the purchased gas cost recovery mechanism (Section 1307(f)-Recovery of Natural Gas Costs), so it is inappropriate for Columbia to include and claim RNG pilot program costs in this base rate proceeding. Therefore, I recommend removal of education cost of $33,500 from the other adjustments claim.

Additional Labor and Benefits Expense:

Per Columbia witness Paloney, the adjustment proposed for the FTY and FPFTY labor and benefits expense is based on changes that are currently under negotiation with union representatives but is reflective of the contract that was presented to the unions for ratification before the cost of service was completed. While these individual adjustments were based on the successful negotiations of other companies across the NiSource footprint have had with the unions, which were finalized for those companies, Columbia has not yet finalized an agreement with the unions as of the filing date of this base rate case. The adjustments include an annual wage increase of $0.50 cents in the FTY and FPFTY as well as the application of merit increases in the FTY and FPFTY (Columbia Statement No. 9, p. 8-9). In its filing (Columbia Exhibit No. 104, Schedule 2, p. 18) and in response to I&E-RE-66-D, the Company provided a calculation of the FTY and FPFTY incremental labor and benefits expenses (I&E Exhibit No. 1, Schedule 5,

p. 6), which is summarized below:

	FTY Claim	FPFTY Claim
Additional Labor Expense	$381,039	$672,181
Additional Benefits Expense	$120,369	$212,340
Total	$501,408	$884,521

Because the agreements with the unions have not been finalized, I am recommending disallowance of the entire $884,521 FPFTY increase. At this time, these increases to labor and related benefits are not certain and should not be granted.

Q. WOULD YOU ACCEPT AN ADDITIONAL LABOR AND BENEFITS EXPENSE ADJUSTMENT IF THE COMPANY PROVIDES SUPPORTING DOCUMENTATION SHOWING THE UNION AGREEMENTS RATIFYING THE INCREASES HAS BEEN SIGNED AND THAT SUPPORTING DOCUMENTATION IS RECEIVED FOR THE TIMING OF THE MERIT PAY INCREASES?

A. Upon receipt of documentation to support the timing, including the percentages of specific dollar amounts of the increases along with the corresponding effective dates of each union contract, I would be willing to consider and update my recommendation as appropriate.

Q. SUMMARIZE YOUR RECOMMENDATION FOR OTHER ADJUSTMENTS.

A. The following table shows my recommended allowance and adjustment to the FPFTY other adjustments expense claim:

1. FPFTY Claim	$15,813,021
2. Picarro Leak Detection System Adjustment	($620,000)
3. Education expense Adjustment	($33,500)
4. Additional Labor and Benefits Expense Adjustment	<u>($884,521)</u>
5. Total adjustments (2 + 3 + 4)	($1,538,021)
6. FPFTY Allowance (1 – 5)	**$14,275,000**

<u>COVID-19 AMORTIZATION</u>

Q. WHAT IS THE COMPANY'S CLAIM FOR ITS COVID-19 AMORTIZATION?

A. Per Columbia's filing, the FPFTY claim for COVID-19 amortization is $1,012,091 (Columbia Exhibit No. 104, Schedule 1, p. 2).

Q. DID THE COMPANY PROVIDE ADDITIONAL INFORMATION REGARDING ITS CLAIM DURING THE DISCOVERY PROCESS?

A. Yes. After the initial filing, the Company provided updated information in response to I&E-RE-64-D(E) with a revised amount for the FPFTY claim for COVID-19 amortization of $708,091 (I&E Exhibit No. 1, Schedule 12, p. 2). The revised claim was due to the billing charge off correction that resulted in downward adjustment of $1,216,000 in COVID-19 deferral balance as of January 1, 2023. This correction led to a revised calculation of the FPFTY COVID-19 deferral net balance of $2,832,363 to be amortized over the remaining four years.

Accordingly, the FPFTY revised annual amortization claim is $708,091 ($2,832,363 ÷ 4), which results in a reduction of $304,000 (as filed claim: $1,012,091 – revised claim: $708,091) to the Company's as filed claim. Columbia confirmed that it will update its claim for COVID-19 amortization expense in rebuttal testimony.

Q. DO YOU ACCEPT THE COMPANY'S REVISION?

A. Yes.

Q. DO YOU HAVE ANY RECOMMENDATIONS WITH RESPECT TO THE COVID-19 DEFERRAL?

A. Yes. The Company should agree to cease recording any increases to the deferral amount and has indicated that it has ceased recording deferrals upon the effective date of new rates in the prior base rate proceeding (I&E Exhibit No. 1, Schedule 12, p. 2). Additionally, the Company should agree to provide a detailed account of the yearly amortizations in the next base rate case (and in subsequent base rate cases until the full amount is extinguished) showing the beginning amount of the deferral since its inception and a yearly account of each amortization and/or adjustment until the full amount is amortized.

ENERGY EFFICIENCY PLAN

Q. WHAT IS COLUMBIA'S PROPOSED ENERGY EFFICIENCY PLAN?

A. Columbia has proposed a three-year Energy Efficiency (EE) Plan containing a Residential Prescriptive (RP) program based on a similar design of rebate programs run by two other NGDCs in Pennsylvania and an Online Audit Kit (OAK) based on a program run by Columbia Gas of Virginia (Columbia Statement No. 16, p. 3). The RP program will provide incentive rebates to residential customers who install new energy efficient equipment, i.e., smart thermostats, furnaces, boilers, combi boilers, and tankless water heaters (Columbia Statement No. 16, Exhibit TML 2, p. 17). The OAK program will provide free of cost water heating kit and space heating kit to improve the energy efficiency of residential homes to eligible customers (Columbia Statement No. 16, Exhibit TML 2, p. 21).

Q. WHY IS COLUMBIA PROPOSING AN EE PLAN?

A. Although not statutorily mandated for NGDCs, the Company voluntarily designed and proposed an EE Plan, primarily to help residential customers reduce their energy consumption, improve efficiency, and conserve resources. Columbia's EE plan is designed on the basis of the Energy Efficiency and Conservation (EE&C) Plan of UGI Utilities Inc. - Gas Division (UGI) and Columbia Gas of Virginia.

It is the Company's opinion that implementation of the EE Plan during the proposed plan period 2023-2025 is projected to save 189,942 incremental annual Dths of natural gas and 3.3 million Dths natural gas saving over the lifetime of the equipment or measures installed (Columbia Statement No. 16, pp. 4-5). The Plan is projected to save 8,724 MWh of electricity and 146 million gallons of water over the lifetime of the measures installed, and, additionally, reduced emission of over 201,597 short tons of CO_2 is expected to occur from program activity, which is equivalent to removing over 7,700 cars from the road permanently (Columbia Statement No. 16, p. 5).

The Company also opines that its proposed EE Plan will generate between 99 and 199 additional new jobs in the broader Pennsylvania economy over the lifetime of the efficiency measures installed (Columbia Statement No. 16, p. 5).

Q. WHAT IS THE ESTIMATED TOTAL SPENDING FOR THE PROPOSED EE PLAN?

A. Columbia projects a three-year EE Plan total cost of $8,073,670 as per the breakdown shown in the table below (Columbia Statement No. 16, p. 6):

	2023	**2024**	**2025**	**2023-2025**
Residential Prescriptive Program	$898,000	$2,243,000	$3,021,000	$6,162,000
Online Audit Kit Program	$241,860	$356,510	$501,300	$1,099,670
Portfolio-wide Costs	$300,000	$254,000	$258,000	$812,000
Total	**$1,439,860**	**$2,853,510**	**$3,780,300**	**$8,073,670**

Q. WHAT IS THE ESTIMATED PORTFOLIO TOTAL COST BY CATEGORY FOR THE PROPOSED EE PLAN?

A. The following table shows a breakdown of the total spending at the portfolio level by budget category and year (Columbia Statement No. 16, p. 6):

Category	**2023**	**2024**	**2025**	**2023-2025**	**% of total cost**
Customer Incentive	$685,860	$2,058,510	$2,747,300	$5,491,670	68.02%
Administration	$561,000	$558,000	$643,000	$1,762,000	21.82%
Marketing	$140,000	$120,000	$151,000	$411,000	5.09%
Inspections	$33,000	$97,000	$129,000	$259,000	3.21%
Evaluation	$20,000	$20,000	$110,000	$150,000	1.86%
Total	**$1,439,860**	**$2,853,510**	**$3,780,300**	**$8,073,670**	**100.00%**

Q. HOW DOES COLUMBIA PROPOSE TO RECOVER THE EE PLAN COSTS?

A. Columbia proposes to recover the EE Plan costs in the fiscal years 2023-2025 from residential customers (excluding low-income customers participating in its Customer Assistance Program) via an EE Rider, which will appear as a separate line item on customers' bills (Columbia Statement No. 16, pp. 6-7). The proposed initial rider charge is set at $0.00441 per/therm for residential customers calculated on the basis of the 2023 program cost (Columbia Statement No. 6, p. 42).

Additionally, Columbia proposes to move the yearly budget dollars cap between years and programs depending on market conditions and adoption rates (Columbia Statement No. 16, p. 7).

Q. DO YOU AGREE WITH COLUMBIA'S PROPOSAL TO ESTABLISH/IMPLEMENT AN EE PLAN IN THIS BASE RATE CASE PROCEEDING?

A. No. I recommend that the Company's proposal for implementing an EE Plan be disallowed in its entirety. Disallowance of the proposed EE Plan will result in elimination of unnecessary charges via an EE rider on residential customers' bills at the time when Columbia has increased customers' rates year after since 2013 and expects to continue on the same path in the pretext of aggressively budgeted future capital investment.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. There are five reasons influencing my recommendation, which are summarized below.

1. Columbia has proposed EE plan for the first time and has no experience or data and does not specifically state that this plan is based on the measurable success or results of other NGDCs' energy efficiency plans. Columbia's proposed RP program design is based UGI's EE&C Plan design, and it appears that it did not rely on UGI's plan performance data or analysis, and, therefore, it is speculative to determine whether Columbia's EE plan would succeed in attaining all projected gas savings, additional employment generation, carbon emission reduction, environmental/societal benefits, and cost-benefits ratio. It is also speculative that Columbia's EE plan will

succeed based on UGI's plan performance data if they are analyzed. The OAK program is designed on the basis of Columbia Gas Virginia's EE program, which is influenced by the region-specific program parameters of another state's NGDC, jurisdictional customers' gas usage, state regulation, etc. Therefore, Columbia Gas Virginia's EE program should not be a reliable basis for Columbia's OAK program.

2. Act 129 does not mandate NGDCs to introduce or develop and implement EE plans and there is no mandated requirement for the NGDC's EE plan performance parameters. Therefore, NGDCs are not subject to any civil penalties for a failure to meet stated goals. In such a situation, if an NGDC's EE Plan fails to achieve targeted goals, the expenses incurred (funded by the ratepayers) would be unproductive.

3. EE Plans are not essential to the provision of safe and reliable natural gas service.

4. As discussed above, historically Columbia has consistently filed base rate cases requesting rate increases since 2012 to primarily recover the capital cost of pipeline infrastructure replacement program and O&M expenses, which have constantly increased customers' rates year after year. Currently, Columbia is heavily focused on a capital-intensive pipeline infrastructure project, which will continue for the next several years. Therefore, it is not appropriate at this time to put an additional burden on customers' rates via the proposed EE rider in light of the current

inflationary trends in the cost of living.

5. There is uncertainty about the success of Columbia's proposed EE plan as this plan is based on a speculative calculation about the number of customers' participation, gas savings, additional employment generation, environmental or societal benefits, and the cost-benefit ratio (achieving Total Resource Cost test results). I reiterate that it is speculative to rely on the performance data of other NGDCs' EE&C plans.

Q. SUMMARIZE THE BASIS OF YOUR RECOMMENDATION.

A. Considering the above and during the current inflationary trend in the overall economy, it is not advisable, fair, and justifiable in the interest of ratepayers to approve the proposed EE plan at this time and put an additional cost burden on all residential customers via an EE rider. Additionally, as discussed above, Columbia is aggressively making and has already planned to continue significant capital investments in its pipeline infrastructure replacement program for the coming years, which will continue to impact the rate affordability for all customers. Therefore, it would be imprudent and unfair to permit Columbia to implement an EE Plan at this time.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

D. C. PATEL

PROFESSIONAL AND EDUCATIONAL BACKGROUND

EXPERIENCE:

- Pennsylvania Public Utility Commission, Harrisburg, Pennsylvania
  June 2015 to Present
  Fixed Utility Financial Analyst, Bureau of Investigation and Enforcement
- Pennsylvania Insurance Department, Harrisburg, Pennsylvania
  March 2013 - June 2015
  Insurance Company Financial Analyst, Bureau of Company Licensing & Financial Analysis
- Pennsylvania Department of Revenue, Harrisburg, Pennsylvania
  November 2010 - March 2013
  Accounting Assistant, Bureau of Corporation Taxes (Accounting)
- Hersha Hospitality Management, Harrisburg, Pennsylvania
  June 2007 - November 2010
  Staff Accountant (Taxes), Accounting Department
- Corporate Experience, India
  February 1987 – April 2007
  Worked as Company Secretary for three different companies during this period, which were listed on the Stock Exchanges.

EDUCATION/CERTIFICATION:

- Gujarat State University, Ahmedabad, India
  -Bachelor of Commerce (Major concentration: Accounting)
  June 1980 - April 1983
  -Bachelor of Law
  June 1983 - December 1988

- The Institute of Company Secretaries of India, New Delhi, India
  -Post Graduate Professional Degree: Company Secretary
  June 1983 - December 1985

RATE CASE TRAINING:

- Attended 37th Western NARUC Utility Rate School in May 2016

<u>WORKED ON THE FOLLOWING CASES (Testimony not required)</u>:

- R-2022-3031172 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- R-2021-3024349 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- M-2018-2640802 and 2640803 - Pittsburgh Water and Sewer Authority (Compliance Plan Stage 2)
- R-2021-3023541 - National Fuel Gas Distribution Corporation (§ 1307(f))
- A-2020-3020178 - PA American Water Co.-Valley Township-Wastewater (1329)
- A-2020-3019859 - PA American Water Co.-Valley Township-Water (1329)
- A-2020-3021460 - PA American Water Co.-Upper Pottsgrove-Wastewater (1329)
- U-2020-3015258 - Pittsburgh Water and Sewer Authority
- R-2020-3019661 - PECO Energy Co. - Gas Operations (1307(f))
- R-2019-3008255 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- R-2018-3001568 - PECO Energy Co. - Gas Operations (1307(f))
- R-2018-3000253 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- A-2017-2629534 - PPL Electric Utilities (Restructuring Plan)
- R-2017-2631441 - Reynolds Water Co.
- R-2017-2602611 - PECO Energy Co. - Gas Operations (1307(f))
- R-2016-2567893 - Andreassi Gas Co.
- R-2016-2525128 - Columbia Water Co. - Marietta Division
- R-2015-2479962 - Corner Water Supply and Service Corporation
- R-2015-2479955 - Allied Utility Services, Inc.
- R-2015-2493905 - Sands, Inc.

<u>SUBMITTED TESTIMONY IN THE FOLLOWING CASES</u>:

- A-2021-3024681 - PA American Water Co. - York City Sewer Authority/City of York Wastewater (1329)
- A-2021-3024267 - Aqua Pennsylvania Wastewater, Inc. - Lower Makefield (WW)
- R-2021-3024601 - PECO Energy Co. - Electric Operations
- R-2021-3024773 et al. - Pittsburgh Water and Sewer Authority
- M-2018-2640802 and M-2018-2640803 - Pittsburgh Water and Sewer Authority
- (Compliance Plan – II)
- A-2020-3019634 - PA American Water Co. - Royersford Wastewater (1329)
- R-2020-3018921 - PECO Energy Co. - Gas Operations
- R-2020-3017951 et al. - Pittsburgh Water and Sewer Authority
- R-2020-3018993 - Columbia Gas Pennsylvania, Inc. (1307(f))
- R-2019-3008208 - Wellsboro Electric Company
- R-2019-3008212 - Citizens Electric Company of Lewisburg, PA
- A-2019-3008491 - Aqua Pennsylvania Wastewater, Inc.
- R-2018-3006814 - UGI Utilities, Inc. (Gas Division)
- M-2018-2640802 and 2640803 - Pittsburgh Water and Sewer Authority
- R-2018-3002645 and 3002647 - Pittsburgh Water and Sewer Authority

- R-2018-3000834 - Suez Water Pennsylvania, Inc.
- R-2018-2647577 - Columbia Gas of Pennsylvania, Inc.
- R-2017-2595853 - Pennsylvania American Water Co.
- P-2016-2526627 - PPL Electric Utilities Corp. (DSP IV)
- R-2016-2529660 - Columbia Gas of Pennsylvania, Inc.
- R-2016-2554150 - City of DuBois - Bureau of Water
- R-2016-2580030 - UGI Penn Natural Gas, Inc.

I&E Exhibit No. 1
Witness: D. C. Patel
NON-PROPRIETARY

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Exhibit to Accompany

the

Direct Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES

ENERGY EFFICIENCY PLAN

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-107-D:

Reference Columbia Statement No. 1, p. 13 concerning the continuous investment in replacing pipeline infrastructure of total 7,696.40 miles. Provide the following.

A. Information about remaining pipeline infrastructure in miles to be replaced and number of years projected to complete the entire pipeline modernization project when the Company replaces approximately 100 miles of pipeline per year.

B. Dollar amount of projected capital investment by year to complete the entire remaining pipeline modernization project.

Response:

A. Please see Table 1 below:

Table 1

	Approximate Miles of Distribution Main Remaining as of 1/1/22
Bare Steel / Cast Iron / Wrought Iron / Other	1,069
Pre-1982 Plastic	634
Pre-1971 Coated Steel	1,265
Total	2,967

Projecting the Company to replace 100 miles a year total, of all categories of mainline specified above (Bare Steel, Cast Iron, Wrought Iron, Other, Pre-82 Plastic, Pre-71 Coated Steel), it would take a minimum of 30 years to complete the entire modernization of Columbia's Infrastructure Replacement Program.

B. Currently, Columbia's planning does not go beyond 10 years, thus the dollar amount of capital, by year, needed to complete the entire remaining pipeline modernization program cannot be projected.

Please see Table 2 below, which does show what is currently proposed in Columbia's Age and Condition Program:

Table 2

Year	Age & Condition Budgeted Amount (in millions)
2022	275.8
2023	342.4
2024	341.4
2025	371.5
2026	384.9
2027	401
2028	418.5
2029	436.7
2030	455.8
2031	475.8

Within Columbia's Age and Condition Program, the following budgets are included:

Budget	Description
3700109	Measuring and Regulating Stations
3700311	Compressor Stations
3700557	Mains - Leakage Elim
3700565	Service Lines - Replaced
3700567	Meters
3700579	Meter Install - Replace
3700581	House Regulators -Replace
3700583	Plant Regulators -Replace
3700585	Reg Structures - Replace
3700587	LV Excess Press Meas Sta
3700595	Corrosion Mitigation Ins
3700597	Service Regulators Replace

As provided in testimony, as Columbia analyzes and evaluates its risk within its SMS Asset Groups, Columbia will adjust its focus on addressing such risks accordingly throughout the planning period. An example would be the relatively recent need to focus on In Line Inspections.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-106-D:

Reference Columbia Statement No. 1, p. 7, in response to the impact of rate increase on customers, Mr. Kempic states that the Company believes that maintaining and growing its infrastructure modernization program via large scale pipeline replacement program provides the ancillary benefit of energizing the local economies through the wages paid to the skilled labor necessary to complete the work.

A. Explain the rate increase impact on customers that are considered in this base rate case in addition to the COVID-19 impact on customers and in the light of the fact that the Company has sought increase base rates consistently every year since 2012 through 2022 excepting the year 2013, 2017, and 2019 (eight base rate cases filed within a span of eleven years). Additionally, Columbia intends to file another base rate case within next 12-months (in 2023).

B. Detailed justification for the proposed rate increase besides the infrastructure replacement program and pipeline safety considerations.

C. Provide an analysis of Columbia's distribution rates with and without this increase in comparison with the current distribution rates of other gas distribution companies in Pennsylvania.

D. Quantify and provide supporting documentations of the benefits to be realized by energizing the local economies through the wages paid to the skilled labor necessary to complete the infrastructure (pipeline) modernization program.

Response:

A. The rate impact of the rate increase sought in this proceeding appears in Exhibit No. 111, Schedule 6. It's important to note that after adjusting for inflation, even after the full increase requested in this proceeding, Columbia's bills will still be 10% less than the bills were 20 years ago.

B. Justification for the rate increase is outlined in Exhibit No. 102, which references all exhibits that determine the proposed rate increase. Specifically, see Exhibit No. 108 for capital investments and Exhibit No. 104 for Operations and Maintenance expenses including the safety programs.

C. Public utilities rates in Pennsylvania are established based on the operations and maintenance costs of the particular utility as well as that utility's capital investment, and a fair rate of return. As such, the utility rates of other gas distribution companies have not been reviewed or considered as part of this proceeding. Therefore, Columbia Gas does not have the requested comparison.

D. In addition to the 782 employees which Columbia Gas employs across the Commonwealth, Columbia Gas hires approximately 1,300 contractors and subcontractors for its accelerated pipeline replacement program. For the year ending November 2021, Columbia paid the contractors $197,246,521, which represents the direct economic spend infused into the Commonwealth. Those funds would not have been infused into the economy if not but for Columbia's accelerated pipeline replacement program.

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-110:

Reference Columbia Exhibit 14, Schedule 2, Attachment C, p. 1 concerning Supplement Tariff No. 337 showing the effective date of proposed new rates as May 17, 2022. Provide the targeted effective date of new rates since the proposed tariff has been suspended until December 17, 2022 or state consequent to the Commission order approving the rate increase request.

Response:

The effective date of new rates is December 17, 2022. On April 22, 2022, pursuant to the Commission's April 14, 2022 Order issued in the instant docket, the Company filed Supplement No. 342 to Tariff Gas Pa. P.U.C. No. 9 ("Supplement No. 342"), suspending the proposed rates and rules contained in Supplement No. 337 to Tariff Gas Pa. P.U.C. No. 9 until December 17, 2022. A copy of Supplement No. 342 was served on the parties in this proceeding, and a copy is available on the Commission's docket.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-109:

Reference Columbia Statement No. 4, pp. 3-4 and Exhibit 102, Schedule 3, pp. 3 and 5 concerning the Statement of Income at present and proposed rates showing the ratemaking calculation (total revenue requirement and revenue increase adjustment) for the 12-months ended November 30, 2021 (HTY), 12-months ended November 30, 2022 (FTY), and 12-months ended December 31, 2023 (FPFTY):

A. Explain in detail with rationale why the Company projected the FPFTY for the 12-month period from January 1, 2023 to December 31, 2023 when the Company used the FTY for the 12-month period from December 1, 2021 to November 30, 2022 and the HTY for the 12-month period from December 1, 2020 to November 30, 2021 in the ratemaking calculation.

B. Explain why the Company filed this rate case on March 18, 2023 instead of March 31, 2022 when the Company has provided the supporting revenue requirement and revenue increase calculation based on the FPFTY 12-month period from January 1, 2023 to December 31, 2023 and the proposed new rate is suspended until December 17, 2022.

Response:

A. By regulation, an historic test year is to be the 12-month period ending no later than 120 days prior to the date of the rate filing. Also, by regulation, the Future Test Year is to be the immediately following 12-month period. By statute, the FPFTY is to be the 12-month period beginning with the first month that new rates will be placed into effect after the full suspension period. Because the full statutory suspension period concludes in December 2022, the FPFTY is the 12-month period beginning January 1, 2023.

B. The Company filed this rate case on March 18, 2022, not March 18,2023. A rate case filed on March 31, 2022, would not be in compliance with the Commission's regulations regarding the period for an historic test year.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-115:

Reference Columbia's responses to I&E-RE-109-D and I&E-RE-110-D providing explanation for new rates effective date of December 17, 2022. Provide the following:

A. Explanation why Columbia did not file this base rate case on March 29, 2022 or March 30, 2022 and propose an effective date of January 1, 2023, the first day of the FPFTY 2023.

B. Explanation for making new rates effective December 17, 2022 when the Company's FPFTY 2023 begins on January 1, 2023 and all the budgeted numbers for ratemaking calculations are made up for the FPFTY January 1, 2023 through December 31, 2023.

C. State whether the Company would agree to make the new rates effective January 1, 2023.

D. If response to Part C above is no. Explain why.

Response:

A. It is Columbia's preference to have its FPFTY be a calendar 12-month period, thus the filing is made in the month of March in compliance with the Public Utility Code. In terms of a specific filing dates considered by the Company, the Company has traditionally opted to file its rate cases on a Friday; thus, March 29th and March 30th was not considered as filing dates. In terms of the effective date proposed within the Company's filing (which was May 17, 2022), the Company developed this date by adding 60 days from the date of filing, as required by the Public Utility Code. The Company did not consider deviating from the Public Utility Code when it set the effective date for Supplement No. 337 to Tariff Gas Pa. P.U.C. No. 9.

B. Please see the Company's response to I&E-RE-109-D, subpart A.

C. No, the Company is not agreeable to voluntarily extending the effective date for new rates beyond the effective date set forth in the Commission's April 14, 2022 Order issued in the instant docket.

D. The Commission has already established the effective date for new rates related to the Company's rate case. Please see the Company's response to I&E-RE-110 for further information regarding the Commission's Order suspending Supplement No. 337 to Tariff Gas Pa. P.U.C. No. 9 until December 17, 2022.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-004-D:

Reference Columbia Exhibit 104, Schedule 2, p. 14 concerning the normalization of rate case expense of $1,254,200:

A. Provide the claimed rate case expense and the actual total dollar amount expended for the settled rate cases at: (1) Docket No. R 2018-2647577; (2) Docket No. R-2020-3018835; and (3) Docket No. R-2021-3024296 along with a detailed breakdown for actual incurred expenses by category (e.g., Gannett Fleming, Moul and Associates, Post and Schell, Legal Notices, Travel, and Miscellaneous Expenses).

B. Indicate the filing date and the method of resolution (e.g., settlement or full litigation) for each of the above-mentioned rate cases.

Response:

A. Please see Attachment A.

B. Please see Attachment A.

I&E Exhibit No. 1
Schedule 3
Page 2 of 7

Columbia Gas of Pennsylvania, Inc.
Summary of Rate Case Expense
By Docket #

Line No.	Description	R-2018-2647577	R-2020-3018835	R-2021-3024296
Part A:		**Amount ($)**	**Amount ($)**	**Amount ($)**
1	Gannett Fleming	35,067	38,185	37,106
2	Moul and Associates	56,396	96,188	66,375
3	Post and Schell	476,870	572,287	409,295
4	Concentric Energy Advisors	-	40,000	-
5	James Cawley	-	18,600	-
6	Legal Notices	20,770	15,051	12,722
7	Travel Expense	9,224	1,085	-
8	Miscellaneous: Supplies, Courier, Etc.	13,259	1,126	-
9	**Total**	$ 611,586	$ 782,522	$ 525,497
10	**Amount Requested 1_/**	$ 1,030,000	$ 1,060,000	$ 1,060,000
11	**Amount Approved 2_/**	$ -	$ 636,000	$ -
Part B:				
1	**Filing Date**	3/16/2018	4/24/2020	3/30/2021
2	**Resolution**	Settled	Fully Litigated	Settled

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-005-D:

Reference Columbia Exhibit 104, Schedule 2, p. 14 concerning the normalization of rate case expense of $1,254,200, provide the following:

A. Copies of all current outside/external service contract agreements for rate case-related services.

B. Invoices/receipts for the rate case-related expenses incurred to date for the current filing and continue to provide updates for invoices as they are incurred.

C. Breakdown of expense claim of $35,000 and type of service provided by Concentric Energy Advisors.

D. Breakdown of expense claim of $159,200 and type of service provided by Green Efficiency Group.

E. Estimated dollar amount of rate case expense to be incurred by the Company if the case is not fully litigated.

Revised Response:

A. Please see Attachment A for the agreement with Concentric Energy Advisors and the Confidential Work Proposal for Green Energy Economics Group. Only verbal agreement exists for Gannett Fleming and Moul and Associates.

B. Please see REVISED Attachment B for invoices received related to current rate case expenses through April 30, 2022.

C. Please see REVISED Attachment B for current invoices for Concentric Energy Advisors with information describing the type of service being provided.

D. Please see Attachment C for breakdown of expense claim of $159,200 and type of service to be provided by Green Energy Economics Group. Also see current associated invoices as a part of Attachment B.

E. TABLE A below outlines the rate case expenses for the last three settled cases; however, rate case expense is highly dependent on the circumstances of each specific case and therefore Columbia cannot speculate as to the final amount of rate case expense for this instant case.

I&E-RE-005-D TABLE A

Line No.	Description	R-2016-2529660	R-2018-2647577	R-2021-3024296
		Amount ($)	Amount ($)	Amount ($)
1	Gannett Fleming	19,473	35,067	37,106
2	Moul and Associates	64,843	56,396	66,375
3	Post and Schell	425,426	476,870	413,420
4	Legal Notices	34,139	20,770	12,722
5	Travel Expense	2,062	9,224	-
6	Miscellaneous: Supplies, Courier, Etc.	1,493	13,259	-
7	**Total**	$ 547,436	$ 611,586	$ 529,623

Original Response:

A. Please see Attachment A for the agreement with Concentric Energy Advisors and the Confidential Work Proposal for Green Energy Economics Group. Only verbal agreement exists for Gannett Fleming and Moul and Associates.

B. Please see Attachment B for invoices related to current rate case expenses through March 31, 2022.

C. Please see Attachment B for current invoices for Concentric Energy Advisors with information describing the type of service being provided.

D. Please see Attachment C for breakdown of expense claim of $159,200 and type of service provided by Green Energy Economics Group. Also see current associated invoices as a part of Attachment B.

E. TABLE A below outlines the rate case expenses for the last three settled cases; however, rate case expense is highly dependent on the circumstances of each specific case and therefore Columbia cannot speculate as to the final amount of rate case expense for this instant case.

I&E-RE-005-D TABLE A

Line No.	Description	R-2016-2529660	R-2018-2647577	R-2021-3024296
		Amount ($)	Amount ($)	Amount ($)
1	Gannett Fleming	19,473	35,067	37,106
2	Moul and Associates	64,843	56,396	66,375
3	Post and Schell	425,426	476,870	409,295
4	Legal Notices	34,139	20,770	12,722
5	Travel Expense	2,062	9,224	-
6	Miscellaneous: Supplies, Courier, Etc.	1,493	13,259	-
7	**Total**	$ 547,436	$ 611,586	$ 525,497

COLUMBIA GAS OF PENNSYLVANIA INC.

R-2018-2647577

Data Requests

Bureau of Investigation & Enforcement – Set RE

Question No. I&E-RE-004-D:

Reference Columbia Exhibit 104, Schedule 2, p. 20 concerning the normalization of rate case expense of $1,060,000. Provide the requested rate case expense and *the actual total dollar amount* expended for the settled rate cases at: (A) Docket No. R-2014-2406274 (filed March 21, 2014); (B) Docket No. R-2015-2468056 (filed March 19, 2015); and (C) Docket No. R-2016-2529660 (filed March 18, 2016) along with a detailed breakdown for *actual incurred expenses* by category (e.g., Gannett Fleming, Moul and Associates, Post and Schell, Legal Notices, Travel, and Miscellaneous by category).

Response:

Please see I&E-RE-004-D Attachment A for the requested information.

		A. 2014 Rate Case R-2014-2406274		B 2015 Rate Case R-2015-2468056		C. 2016 Rate Case R-2016-2529660
Gannet Fleming	$	39,000	$	31,545		19,473
P Moul & Associates	$	55,753	$	57,022	$	64,843
Post & Schell	$	331,368	$	450,304	$	426,255
Capitol Copy	$	16,335	$	16,886	$	20,053
Notices	$	14,341	$	12,392	$	32,274
Business Expenses	$	1,772	$	2,460	$	3,879
File Works	$	-	$	1,386	$	712
Total Actual	$	458,569	$	571,995	$	567,489
Amount Requested 1/	$	697,333	$	1,030,000	$	1,030,000

1/ 2014 Rate Case reflected a normalization period of 1.5 years, total Rate Case Expense amount was $1,046,000.

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-011-D:

Reference Columbia SDR-GAS-RR-026 and Exhibit 104, Schedule 2, p. 1 concerning the per book HTY regular payroll expense of $33,054,407 to normalized FTY regular payroll expense of $34,749,034, provide the following:

A. Calculation with explanation of ratemaking adjustment of $425,918.

B. Number of employees covered and number of months for wage increase of 3% amounting to $753,307.

C. Calculation with explanation and source for the FTY adjustment amount of $993,418 resulting into the ratemaking adjustment of $515,401.

Response:

A. Please refer to Exhibit 4, Schedule 2, Page 1. As calculated on Exhibit 4, Schedule 2, Page 1, the ratemaking adjustment of $425,918 represents the O&M portion of the Labor annualization adjustment that results when comparing normal HTY pay, per books to annualized wages for all active employees at November 30, 2021, offset by an adjustment to remove Lobbying Expense.

B. The wage increase of $753,307 includes a 3% increase for the 782 active employees at November 30, 2021 for the months of March through November, 2022, or 9 months (753,307=(33,480,326*3%) * (9/12)).

C. Please see CONFIDENTIAL Attachment A for the calculation of the ratemaking adjustment for annualizing Labor for the FTY, which is the supporting workpaper for Exhibit 104, Schedule 2, Page 1.

CONFIDENTIAL

CONFIDENTIAL

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-013-D:

Reference Columbia SDR-GAS-RR-026, SDR-GAS-RR-21, and Columbia Statement No. 9, p. 8 concerning the HTY/FTY/FPFTY total employee count of 782 in each year. Provide the following:

A. Monthly total number of full-time employees by category (clerical labor, exempt labor, manual-non-union, and manual union) and monthly total labor cost for the fiscal years ended November 30, 2019 November 30, 2020, November 30, 2021, and the actual amounts for the current period from December 1, 2021 through February 28, 2022.

B. Total number of employees' retirement/resignation/termination/ transfer (normal vacancies) by employee category (clerical labor, exempt labor, manual-non-union, and manual union) anticipated by month in the FTY and FPFTY.

C. Number of budgeted, filled, and vacant positions due to normal vacancies by month for the fiscal years ended November 30, 2019, November 30, 2020, November 30, 2021, and for the current period from December 1, 2021 through February 28, 2022.

D. Number of new employees hired, hiring dates, and their payroll details (with employee names redacted) for fiscal years ended November 30, 2019, November 30, 2020, November 30, 2021, and for the current period from December 1, 2021 through February 28, 2022.

E. Describe the procedures and approximate time frame involved to fill a vacant position (starting from vacancy date, hiring review process, approval by the upper management, and new employee start date (vacancy filling date)).

F. Names of labor contractors, type of service, and amount paid/incurred during the HTY 2021 that are included in labor expense.

Response:

A. Please see Attachment A for the requested information.

B. FTY and FPFTY assumes the same level of headcount as the HTY as no incremental positions were included in the budget. When additional vacancies occur the Company uses overtime or outside resources to complete the work plan.

C. Please see Attachment B for vacant positions by month. Attachment C provides recently filled (hired) positions and Attachment A provides total active employees by month. Information for budgeted normal vacancies is addressed in the response to part B above.

D. Please see Attachment C for the requested information.

E. Please see Attachment D for the requested process information. Note that the timeline for filling vacancies can vary between approximately 8 weeks to 16 weeks depending on the timing of the vacancies, the number of applicants and other variables.

F. Labor Contractor costs are not included in labor expense, but rather are recorded in Outside Services expense. Please refer to the response to SDR-GAS-RR-052 for additional information for Outside Services.

Columbia Gas of Pennsylvania
Employee Headcounts by Employee Category, By Month
Total Gross Labor (Normal, Premium, and Overtime) By Month

TME 11/30/2019	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Total Clerical Labor	151	150	154	152	82	153	154	160	88	90	90	90	
Total Exempt Labor	143	147	143	144	148	150	155	157	167	164	164	167	
Total Manual - Non-Union	16	16	16	16	15	14	14	15	15	15	13	14	
Total Manual - Union	364	363	371	370	449	397	396	402	479	489	492	492	
Total Employees	674	676	684	682	694	714	719	734	749	758	759	763	
Total Labor Cost	4,816,667	4,996,672	4,517,020	4,656,218	4,949,607	5,143,853	4,909,836	5,578,095	5,516,590	5,459,091	5,859,094	5,600,613	$62,003,357

TME 11/30/2020	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Total Clerical Labor	90	91	91	94	96	96	95	96	96	96	95	95	
Total Exempt Labor	172	180	179	179	179	178	179	178	178	180	171	174	
Total Manual - Non-Union	14	16	16	16	16	16	16	16	15	15	15	15	
Total Manual - Union	491	494	494	493	493	491	490	486	485	484	483	483	
Total Employees	767	781	780	782	784	781	780	776	774	775	764	767	
Total Labor Cost	5,400,077	6,735,514	6,192,909	6,402,984	4,843,918	4,824,001	4,935,707	6,824,197	5,020,988	5,127,573	5,356,585	5,386,020	$67,050,474

TME 11/30/2021	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Total Clerical Labor	94	93	92	93	95	91	89	89	90	87	86	91	
Total Exempt Labor	173	173	172	168	174	176	176	175	176	176	176	176	
Total Manual - Non-Union	15	15	15	15	15	15	15	13	16	16	18	18	
Total Manual - Union	484	478	482	488	486	483	478	473	483	488	500	497	
Total Employees	766	759	761	764	770	765	758	750	765	767	780	782	
Total Labor Cost	8,691,722	5,553,079	5,589,699	6,168,769	5,896,356	5,697,208	6,129,941	6,084,475	5,908,885	6,903,157	6,203,281	6,326,730	75,153,301

2021/2022	Dec	Jan	Feb
Total Clerical Labor	89	71	70
Total Exempt Labor	176	177	178
Total Manual - Non-Union	18	36	37
Total Manual - Union	491	491	487
Total Employees	774	775	772
Total Labor Cost	6,880,857	5,859,110	5,699,319

I&E-RE-13-D
Attachment B
Page 1 of 1

Date	# of Vacancies	Date
12/31/2018	48	12/31/2020
1/31/2019	53	1/31/2021
2/28/2019	47	2/28/2021
3/31/2019	49	3/31/2021
4/30/2019	112	4/30/2021
5/31/2019	100	5/31/2021
6/30/2019	91	6/30/2021
7/31/2019	76	7/31/2021
8/31/2019	76	8/31/2021
9/30/2019	72	9/30/2021
10/31/2019	69	10/31/2021
11/30/2019	68	11/30/2021
12/31/2019	63	12/31/2021
1/31/2020	49	1/31/2022
2/29/2020	50	2/28/2022
3/31/2020	48	
4/30/2020	48	
5/31/2020	52	
6/30/2020	53	
7/31/2020	57	
8/31/2020	53	
9/30/2020	52	
10/31/2020	58	
11/30/2020	54	

Process Step	Step Details	Considerations
Identification of need for new/replacement position	Hiring Manager (HM) works with HRC (HR Consultant) to review business needs of open position for replacement or requirement for additional position. Business case is developed for new/replacement position.	*Business needs, financial considerations, and standards of work weighed.*
Determination of position characteristics	Hiring Manager works with the HRC to determine accurate salary range, job description and job scope level. Information is incorporated as part of business case to be presented to management.	*Hiring Manager and HRC will work together to determine if the position is necessary for the business, how many FTE hours are required and review the job description to ensure all responsibilities and tasks are in line with current business actions.*
Approval for Position	Hiring Manager and HRC present the position business case to upper management for review and approval. Approvals to be obtained from senior management to post and fill vacant position.	*Approvals needed from the following to backfill a position:* *Area Manager, One Level up, State HR Lead, SVP and/or State President.* *If the position is an addition to complement /new position, additional approvals needed from:* *VP of HR and the EC Leader.* *[For financial and budget review, the Manager of Compensation may be consulted.]*
Recruiting Request	After approvals have been obtained, hiring manager will connect with the recruiting partner	
Recruiting Strategy	Hiring manager and Recruiting Partner (RP) work to determine position competencies, experience needed, pre-screening questions, and sourcing strategy	
Job Posting	Job Posting will be developed by the recruiting partner and reviewed by the hiring manager. Posting timeline will be determined relevant to the recruiting strategy. Posts will be initiated and publicized on job boards (internally and externally) for solicitation of candidate applications.	

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Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-016-D:

Reference Columbia Exhibit 4, Schedule 1, p. 2 and Exhibit 104, Schedule 1, pp. 2-4 concerning incentive compensation. Provide supporting workpapers and detailed calculations used to determine the following incentive compensation payment:

A. $1,472,179 for the fiscal period ended November 30, 2019.

B. $260,629 for the fiscal period ended November 30, 2020.

C. $1,186,045 for the fiscal period ended November 30, 2021.

D. $2,605,000 for the FTY.

E. $2,570,000 for the FPFTY.

F. Provide a breakdown for the amounts shown in Parts A through E above by employee category and corresponding capitalization amounts.

G. Provide a detailed explanation and basis for the budgeted increases in the FTY and FPFTY claims as compared to the incentive payment of $1,186,045 in the HTY.

Response:

A. Through C.
The amounts listed above for Parts A. through C. represent twelve months of accrual-based accounting and not the actual Incentive Compensation payments. Incentive accruals for each plan year/calendar year are made

based upon anticipated payouts for that specific plan year. Payouts are made in the year following the plan year. For example, the amount of $1,472,179 listed above in Part A. represent accrual entries for the 2018 Plan year in December 2018, accrual entries for 2019 Plan year in January through November 2019 and the payout for the 2018 Plan (along with the accrual reversing entry). Please see Table A below for payouts by Plan year and CONFIDENTIAL Attachments A through D for the supporting workpapers.

I&E-RE-016-D TABLE A

CPA Incentive Compensation Payouts by Plan Performance Year ($)				
CIP Plan Performance Year (Payout in following year)	**2018**	**2019**	**2020 1_/**	**2021**
O&M	1,461,439	1,634,650	1,272,524	2,464,604
Capital	1,124,423	1,253,424	984,926	2,113,041
Total	2,585,862	2,888,074	2,257,450	4,577,645
Supporting Documentation Attachments	A	B	C	D

1_/ Please refer to Exhibit 4, Schedule 2, Page 4 for the HTY adjustment for Incentive Compensation. The HTY has been adjusted to the most recent payout which, at the time of the preparation of this case was the 2020 plan payout made during the HTY. The O&M amount listed here was provided by accounting documentation, while the O&M payout amount of $1,186,045 shown on Exhibit 4, Schedule 2, Page 4 line 4 reflects the O&M percentage of 52.54% as determined for ratemaking on Exhibit 4, Schedule 2, Page 5.

D. The budget tool calculates Incentive Compensation based upon the salary and incentive potential percentage for each position authorized in the budget, as such there are no workpapers to provide to support the calculation; however, a review is performed on incentive compensation overall for reasonableness. Please refer to Attachment E, which shows two things: First, on the tab labeled “CIP to Labor”, the CIP calculated by the budget tool for 2022 and 2023 is reasonable in relation to 2021 actual results. Second, on the tab labeled “CIP Allocation Check”, the CIP allocated via NCSC to PA via the budget tool in 2022 and 2023 is reasonable in relation to 2021 actual results. Please note, budget reviews are performed on a calendar year basis.

E. See response D above.

F. A breakdown of O&M and capital for Incentive payouts is provided in Table A above. Please see TABLE B below for the percentage breakdown of the amounts by employee category.

I&E-RE-016-D TABLE B

Percentage of Total by Employee Category					
Years	Clerical Labor	Exempt	Manual Non-Union	Manual Union	Total
2018	10%	23%	3%	64%	100%
2019	6%	53%	1%	40%	100%
2020	10%	26%	2%	62%	100%
2021	10%	26%	2%	62%	100%

The budgeted amounts (parts D and E) are not developed at the employee category level of detail and are therefore not available. TABLE C below provides the Columba Gas of Pennsylvania employees' budgeted incentive compensation total gross amounts, and portions allocated to O&M and Capital, for the FTY and FPFTY periods 12-months ending November 30, 2022 and December 31, 2023, respectively.

I&E-RE-016D TABLE C

Employee Category	Total Gross Paid	O&M	Capital
FTY (12-Months ending 11/30/22)	$ 4,473,270	$ 2,605,067	$ 1,868,203
FPFTY (12-Months ending 12/31/23)	$ 4,368,230	$ 2,570,290	$ 1,797,940

G. Please refer to Table A above. Payouts for the 2020 Plan year were below the target payout level, while payouts for the 2021 plan year were above the target. The FTY and FPFTY expense for Incentive Compensation reflect target level payouts. Please see the response to SDR-GAS-RR-027 for plan documents outlining target payouts for the 2021 and 2022 plans. See also the responses to I&E-RE-014-D and I&E-RE-015-D.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-066-D:

Reference Columbia Exhibit 104, Schedule 1, pp. 3-4, Schedule 2, p. 18 and Columbia Statement No. 9, pp. 8-9 concerning other adjustments for additional labor expense claims of $501,408 ($381,039 + $120,369) in the FTY and $884,521 ($672,181 + $212,340) in the FPFTY. Provide the following:

A. Calculation with detailed breakdown of anticipated increase in employees (union) labor expenses by payroll, incentive compensation, benefits, and payroll taxes in the FTY and FPFTY caused due to recent ratification of union contracts.

B. Number of employees covered for additional labor expenses and the effective date of labor expense increase in the FTY and FPFTY.

C. Copy of ratified union contracts evidencing increase in payroll and benefits expense.

D. Confirmation that these additional labor expenses are not included/claimed in the labor expenses on Exhibit 104, Schedule 1, pp. 3-4, line nos. 1, 2, and 6.

E. Corresponding dollar amount of the capitalized portion for the FTY and FPFTY increased labor cost.

Response:

A. Please see CONFIDENTIAL Attachment A. Attachment A utilizes annualized wages at November 30, 2021 for union employees as the basis for the additional labor expense for the FTY and the FPFTY. Please see the response to I&E-RE-011-D for a breakout of annual wages at November 30, 2021 by union.

B. Additional Labor Expense covers 497 employees for both the FTY and the FPFTY. Please see CONFIDENTIAL Attachment A for details.

C. Please see response for I&E RE-10-D for CONFIDENTIAL copies of associated Memorandums of Understanding, which outline the pay increase terms.

D. Expenses included on lines 1, 2 and 6 of Exhibit 104, Schedule 1 include annual increases of 3% only for all employees for the FTY and the FPFTY. Please also see GAS-RR-026 and the response to I&E-RE-011-D for labor annualization adjustment details.

E. Attachment A calculates the additional labor expense at the Gross level and utilizes the O&M Percentage as determined on Exhibit 4, Schedule 2, Page 5 to determine the O&M portion of the adjustment.

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Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-015-D:

Reference Columbia Exhibit 104, Schedule 1, pp. 2, 3, and 4 concerning incentive compensation:

A. Provide the FTY and FPFTY number of eligible employees by category (clerical labor, exempt labor, manual-non-union, and manual union) for incentive compensation.

B. Confirm that terms and conditions of 2020/2021/2022 Cash-based Awards Program (copies provided in response to SDR-GAS-RR-027 (Attachment A-E) will be applicable for the FPFTY incentive compensation payment.

C. Provide a list of all financial triggers and their specified minimum performance standard to be achieved in order for any incentive amounts to become payable under each of the incentive plans.

D. State whether financial goals and other triggers must be met before any incentive compensation is paid.

E. Identify the portion of the FTY and FPFTY claimed incentive compensation expensed and capitalized that would be paid independent of meeting financial targets/goals.

Response:

A. All active employees are eligible. Category details of planned headcount are not available. In total, the number of employees upon which FTY and FPFTY Incentive Compensation is based are 782 in both periods.

B. The terms and conditions of 2021/2022 Cash-based Awards Program provided in response to SDR-GAS-RR-027 (Attachment A-D) are very similar. The 2023 Cash-based Award Program design will not be available until early 2023, and the Company anticipates that the terms and conditions will be essentially the same as the 2022 program.

C. The financial triggers for the 2021 and 2022 Cash-based Award Programs are contained within the documents attached to SDR-GAS-RR-027 (Attachment A-D) and are as follows:
   a. 2021 financial trigger=$1.25 Net Operating Earnings Per Share
   b. 2022 financial trigger=$1.38 Net Operating Earnings Per Share

D. For the 2021 and 2022 Cash-based Award Programs, the safety, customer, and financial goals are separate measures. If the trigger goal is met under any of these measures, then a payout opportunity will exist based upon achievement of those goals.

E. Thirty percent of FPFTY incentive compensation would be paid (expensed or capitalized) independent of meeting financial goals.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-014-D:

Reference Columbia Exhibit 4, Schedule 1, p. 2, SDR-GAS-RR-026, and Exhibit 104, Schedule 1, p. 2 concerning incentive compensation:

A. State the number of eligible employees by category (clerical labor, exempt labor, manual-non-union, and manual union) who are paid incentive compensation of $1,472,179, $260,629, and $1,186,045 for the fiscal periods ended November 30, 2019, November 30, 2020, and November 30, 2021 respectively with the base payroll amount used to calculate of incentive compensation.

B. Provide a detailed explanation for the significantly reduced incentive compensation payment of $260,629 in fiscal period ended November 30, 2020 as compared to $1,472,179 in the corresponding previous fiscal period ended November 30, 2019.

C. Provide corresponding incentive compensation amounts for the fiscal period ended November 30, 2018 and the corresponding total base payroll used as a determination for incentive compensation payment.

D. Provide a breakdown of Ni-Source allocated amounts for incentive compensation and the number of employees covered for the following fiscal periods ended November 30, 2018, November 30, 2019, November 30, 2020, November 30, 2021, the FTY, and the FPFTY. Specify the schedule, expense title, and line item on Exhibit 4 and Exhibit 104 that include Ni-Source allocated incentive compensation expense.

Response:

A. Please note that SDR-GAS-RR-026 provides "Per Books/Budget" O&M & Capital amounts for incentive compensation which reflect accrual-based accounting amounts and not the amounts paid out for Incentive Compensation. The HTY, as well as comparable prior periods, are not calendar periods and include accrual amounts relating to two calendar periods, and consequently reflect accruals covering parts of two calendar years. Anticipated Incentive payout amounts are accrued each calendar year for which the payout relates, while the actual payout is made in the following year. Therefore, Per Books amounts for any Twelve Months Ending November period will include accruals relating to two Incentive plan years and payouts relating to the prior Incentive plan year.

See Tables A and B below for number of eligible employees by category (clerical labor, exempt labor, manual-non-union, and manual union) and base payroll amounts used to calculate incentive compensation for the plan years of 2018, 2019, 2020, and 2021.

Table A: Number of Eligible Employees by Category					
Years	**Clerical Labor**	**Exempt**	**Manual Non-Union**	**Manual Union**	**Total**
2018	85	146	16	445	692
2019	92	178	15	498	783
2020	97	179	16	492	784
2021	97	187	19	514	817

Table B: Base Payroll (Used to Calculate Incentive Compensation) by Category					
Years	**Clerical Labor**	**Exempt**	**Manual Non-Union**	**Manual Union**	**Annual Total**
2018	$5,819,956	$13,498,317	$1,577,728	$37,039,217	$57,935,218
2019	$5,826,870	$16,757,079	$1,223,611	$39,837,031	$63,644,591
2020	$6,469,641	$17,241,868	$1,373,848	$40,536,342	$65,621,699
2021	$6,530,977	$17,553,547	$1,426,227	$41,170,325	$66,681,076

B. Incentive compensation expense is accrued throughout the plan year and is based upon anticipated achievement of customer, safety, and financial goals. As of November 30, 2020, it was anticipated that the 2020 incentive plan trigger would not be met and therefore the plan would not be funded (the amount of $260,629 represents accounting entries made in December 2018 relating to the 2018 Incentive plan). This resulted in the decrease in incentive compensation expense for the twelve months ended November 30, 2020.

It should also be noted that while it was anticipated that a payout would not occur, pursuant to the authority of the Compensation Committee of the NiSource Board of Directors to adjust for extraordinary items under the terms of our incentive plan, the 2020 net operating earnings result for incentive compensation purposes included an upward adjustment of 2 cents per share to partially offset the impact of COVID-19 on the Company's operations during 2020 and resulted in a funding and payout in February, 2021 at the trigger level for the 2020 plan.

C. Incentive accruals for the Twelve Months Ended November 31, 2018 were $1,521,149. See Table B in the response to part A above for the total base payroll used as determination for this expense.

D. NiSource (NiSource Corporate Services or "NCSC") allocated O&M amounts are as follows:

See Tables C, D and E below for NCSC allocated amounts for incentive compensation, number of eligible employees and base payroll amounts used to calculate of incentive compensation for 2018, 2019, 2020, and 2021.

Table C: NCSC Allocated Incentive Compensation ($)			
Fiscal Periods	**Capital**	**O&M**	**Total**
TME November 30, 2018	502,359	3,022,583	3,524,941
TME November 30, 2019	375,764	2,126,906	2,502,671
TME November 30, 2020	(10,024)	71,101	61,077
TME November 30, 2021	1,272,540	6,229,238	7,501,778

Table D: Number of Eligible Employees by Category			
Years	**Exempt**	**Non-Exempt**	**Total**
2018	1,411	749	2,160
2019	1,343	736	2,079
2020	1,293	648	1,941
2021	1,349	647	1,996
FTY	not available	not available	2,059
FPFTY	not available	not available	2,032

Table E: Base Payroll (Used to Calculate Incentive Compensation) by Category			
Years	**Exempt**	**Non-Exempt**	**Annual Total**
2018	$141,736,533	$32,667,324	$174,403,857
2019	$133,089,567	$31,023,015	$164,112,582
2020	$135,018,156	$30,754,199	$165,772,355
2021	$137,294,191	$29,341,347	$166,635,538
FTY	$166,253,262	$31,360,120	$197,613,381
FPFTY	$172,773,873	$34,982,402	$207,756,275

All charges allocated to Columbia from NCSC are included on Exhibit 4, Schedule 1, Page 2, Line 20 and Exhibit 104, Schedule 1, Page 2, Line 20.

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-017-D:

Reference Columbia Exhibit 4, Schedule 1, p. 2 concerning other employee benefits. Provide the following:

A. A detailed breakdown of other employee benefits of $6,931,682, $6,712,213, and $6,974,756 for the fiscal periods ended November 30, 2019, November 30, 2020, and November 30, 2021 respectively in the format as provided in response to I&E-RE-19 in the last rate case at Docket No. R-2021-3024296.

B. A statement showing budgeted versus actual other benefits expense incurred for the fiscal periods ended November 30, 2019, November 30, 2020, and November 30, 2021 respectively in the format provided in response to I&E-RE-19 in the last rate case at Docket No. R-2021-3024296.

Response:

A. Please see Attachment A for response.

B. Please see Attachment B for response.

Columbia Gas of Pennsylvania, Inc.
Other Employee Benefits

	12 Months Ending November 30		
Other Employee Benefits	**2019**	**2020**	**2021**
	$	$	$
9001-Benefit-OH Transfers	6	-	196
9006-Employee Medical Health Ins	96,187	26,605	-
9007-401K Plan	3,058,003	3,493,612	3,563,935
9008-Dental	425,070	354,273	434,969
9009-Group Life - Active	194,002	278,345	293,740
9010-Long Term Disability	353,401	367,431	393,315
9012-Employee Assistance Program	11,019	12,000	9,813
9013-Employee Benefits	-	(1,753)	-
9014-Post Empl Benefits-FAS112	(67,586)	(42,579)	-
9015-Vision Plan	71,615	77,000	67,429
9017-Profit Sharing	385,615	(156,729)	396,897
9018-Education Reimbursement	5,250	1,310	2,707
9021-Moving Expense	8,257	146,766	115,000
9022-Medical - Active	5,285,744	6,602,007	7,266,636
9023-HMO	1,268,158	528,576	(449,394)
9026-Flex Spending Health	151,230	161,785	161,420
9031-Pension-Credits		-	-
9032-Prescriptions	1,188,661	1,318,263	1,349,758
9033-Pension-SERP	7,597	-	
9036-Thrift Restoration - Company	905	1,425	6,090
9061-Transfer-Employ Med Health Ins	(4,165,776)	(4,796,613)	(4,904,284)
9064-Transfer-Pension-Qualified	5,805	-	
9065-Transfer-401K Plan	(1,351,480)	(1,659,510)	(1,733,471)
Total	**6,931,682**	**6,712,213**	**6,974,756**

Columbia Gas of Pennsylvania, Inc.
Other Employee Benefits
$000 (Dollars in Thousands)

	PLAN			ACTUAL			VARIANCE		
	Twelve Months Ended November 30, 2021			Twelve Months Ended November 30, 2021			Twelve Months Ended November 30, 2021		
Hyperion Account	Gross	Capital	Net	Gross	Capital	Net	Gross	Capital	Net
Other Benefits	365	159	206	286	(0)	286	(79)	(160)	81
Employee Medical Health Insuranc	8,975	3,925	5,049	7,993	4,731	3,263	(981)	805	(1,787)
401K	3,117	1,367	1,750	3,516	1,680	1,837	400	313	87
Dental	459	200	259	435	-	435	(24)	(200)	176
Group Life Active	271	118	153	294	-	294	23	(118)	141
Long Term Disability	364	159	205	393	-	393	30	(159)	189
Profit Sharing	733	321	412	717	320	397	(16)	(1)	(15)
Vision	84	37	47	67	-	67	(17)	(37)	20
Total	**14,367**	**6,286**	**8,081**	**13,702**	**6,730**	**6,972**	**(665)**	**444**	**(1,109)**

	Twelve Months Ended November 30, 2020			Twelve Months Ended November 30, 2020			Twelve Months Ended November 30, 2020		
Hyperion Account	Gross	Capital	Net	Gross	Capital	Net	Gross	Capital	Net
Other Benefits	174	71	103	276	-	276	102	(71)	173
Employee Medical Health Insuranc	8,438	3,698	4,740	8,287	4,608	3,679	(151)	910	(1,061)
401K	2,984	1,305	1,680	3,437	1,601	1,836	452	296	156
Dental	421	170	251	354	-	354	(66)	(170)	104
Group Life Active	203	83	120	278	-	278	75	(83)	158
Long Term Disability	324	131	193	367	-	367	43	(131)	174
Profit Sharing	224	132	93	(275)	(118)	(157)	(499)	(250)	(249)
Vision	79	32	47	77	-	77	(2)	(32)	30
Total	**12,848**	**5,621**	**7,227**	**12,802**	**6,091**	**6,711**	**(46)**	**470**	**(516)**

	Twelve Months Ended November 30, 2019			Twelve Months Ended November 30, 2019			Twelve Months Ended November 30, 2019		
Hyperion Account	Gross	Capital	Net	Gross	Capital	Net	Gross	Capital	Net
Other Benefits	169	67	102	103	(0)	103	(66)	(67)	1
Employee Medical Health Insurance	7,506	3,284	4,222	7,665	3,992	3,673	159	708	(549)
401K	2,869	1,233	1,636	3,007	1,300	1,707	138	67	71
Dental	405	159	245	425	-	425	20	(159)	180
Group Life Active	191	75	116	194	-	194	3	(75)	78
Long Term Disability	358	140	217	351	(2)	353	(6)	(142)	136
Profit Sharing	616	266	350	678	292	386	62	27	35
Vision	84	34	50	72	-	72	(12)	(34)	21
Total	**12,198**	**5,258**	**6,940**	**12,495**	**5,582**	**6,913**	**298**	**324**	**(27)**

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-018-D:

Reference Columbia Exhibit 104, Schedule 1, pp. 2-4 concerning other employee benefits. Provide the following:

A. A detailed breakdown of other employee benefits of $7,372,000 and $7,923,000 claimed in the FTY and FPFTY in the template as provided in response to I&E-RE-19 in last rate case at Docket No. R-2021-3024296.

B. A detailed explanation with supporting calculation for the budgeted increases of $397,244 in the FTY and $551,000 in the FPFTY claims.

C. Supporting calculation and documentation used to determine the FTY and FPFTY other employee benefits dollar amounts needed for each type of expense specified in response to Part A above.

Response:

A. Please see Attachment A to this response

B. Other benefits expenses budget assumptions are provided by AON Hewitt for NiSource as a whole and are allocated to Columbia based on a labor allocation factor. Please see the response to part C for more information.

C. Please see Attachment B to this response. Other benefits expenses budget assumptions are provided by AON Hewitt for NiSource as a whole and are allocated to Columbia based on a labor allocation factor.

I&E-RE-18D
Attachment A

	Twelve Months Ended November 30, 2022		
Hyperion Account	**Gross**	**Capital**	**Net**
Other Benefits	(87,045)	5,124	(92,169)
Employee Medical Health Insurance - Expense	7,775,033	3,445,409	4,329,624
401K	3,560,564	1,556,410	2,004,154
Dental	455,187	174,085	281,102
Group Life Active	284,453	111,155	173,298
Long Term Disability	377,257	147,813	229,445
Profit Sharing	687,902	296,453	391,449
Vision	79,297	31,928	47,370
Moving Expense	7,500	-	7,500
Total	**13,140,148**	**5,768,376**	**7,371,772**

	Twelve Months Ended December 31, 2023		
Hyperion Account	**Gross**	**Capital**	**Net**
Other Benefits	13,000	5,590	7,410
Employee Medical Health Insurance - Expense	8,371,462	3,599,729	4,771,733
401K	3,648,000	1,568,640	2,079,360
Dental	454,000	195,220	258,780
Group Life Active	290,000	124,700	165,300
Long Term Disability	386,000	165,980	220,020
Profit Sharing	656,000	282,080	373,920
Vision	81,000	34,830	46,170
Moving Expense	-	-	-
Total	**13,899,462**	**5,976,769**	**7,922,693**

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-021-D:

Reference Columbia Exhibit 104, Schedule 1, p. 2 concerning the budgeted increase of $3,398,969 in FTY outside services of $28,550,149. Provide the basis and calculation for this budgeted adjustment of $3,398,969.

Response:

As noted on page 5 of the testimony of Witness Bly, budgeted expenses are grounded in a trailing 12-month historical spend with inflation adjusted for each year thereafter, delineated by cost categories.

The increase in Outside Services between HTY and FTY of $3,398,969 is primarily driven by using an inflation factor of 3 % between the two periods with the exception of the following programs.

MAOP will increase by $850,000 as a result of data migration from a tabular database to a spatial database, which will begin in 2022. Contractors are readily available and have staffed up, resulting in a $700,000 increase for Risers. To remain compliant, Columbia's corrosion preventative maintenance program has been increased by $500,000, which includes $150,000 for station assessments. Turnbacks have been budgeted for an additional $180,000 due to contract increases. The new maintenance agreement includes a $160,000 ($40,000 per Op Center) increase in the FTY for annual heater inspection and servicing, odorizors, and slam shuts. A $180,000 increase in Serviced Order Inside Inspections (SOII) is included to stay compliant on inspecting own accounts with inside meters.

The FTY TME November 30, 2022 Outside Services budget of $28,550,149 is consistent with the FPFTY TME December 31, 2022 budget of $28,436,679 in the 2021 Rate Case.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-022-D:

Reference Columbia Exhibit 104, Schedule 1, p. 2 concerning the budgeted increase of $1,110,056 in budgeted FPFTY outside services of $29,660,205. Provide the basis and calculation for this budgeted adjustment of $1,110,056.

Response:

As noted on page 5 of the testimony of Witness Bly, budgeted expenses are grounded in a trailing 12-month historical spend with inflation adjusted for each year thereafter, delineated by cost categories.

The increase between FTY and FPFTY of $1,110,056 is primarily driven by using an inflation factor of 3% between the two periods.

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-020-D:

Reference Columbia Exhibit 4, Schedule 14, p. 3 concerning outside services:

A. Reconcile the Total Account 923 Outside Services Employed for the fiscal period ended November 30, 2021 of $25,383,987 with outside services expense of $25,151,180 shown on Columbia Exhibit 4, Sch. 1, p. 2 for the same 12-month period.

B. Explain the increases and provide breakdown of the following HTY expenses as compared to the corresponding 2020 amounts:

1. Perimeter Security Equipment - $83,625.
2. Regulatory Legal Expenses - $387,152.
3. Financial Statement Review - $770,291.
4. Other Outside Services - $317,336.
5. PAC/Lobbying - $397,398.
6. Company Membership - $175,000.
7. Training - $505,274.
8. Garbage and Waste Disposal - $69,966.
9. Management Services - $23,508,972.
10. Lease – Building/Land - $44,610.

C. Provide a modified Schedule 14 to reflect only the amounts considered to be above-the-line for ratemaking.

D. Indicate whether PAC/Lobbying is claimed on FPFTY Exhibit No. 104, Schedule No. 1. If so, indicate the expense line item and provide the basis for this claim.

E. Provide a statement showing budgeted versus actual outside services expense incurred for the fiscal periods ended November 30, 2019, November 30, 2020, and November 30, 2021 in a similar template to the breakdown of outside services provided in Exhibit 4, Schedule 14, p. 3.

Response:

A. Total Account 923 Outside Services of $25,383,987 from Columbia Exhibit 4, Schedule 14, p. 3, presents Account 923, including all cost elements. The Total Amount of Normalized Outside Services (including ratemaking adjustments) of $25,151,180 from Columbia Exhibit 4, Sch. 1, p. 2 for the same 12-month period, includes multiple accounts (in addition to Account 923) and only certain cost elements deemed as Outside Services. Please refer to Attachment A for accounts and cost elements included in Total Outside Services.

Outside Services ratemaking adjustments of ($751,258) found on Columbia Exhibit 4, Sch. 1, p. 2, inadvertently did not pick up ($400,000) listed on Columbia Exhibit 4, Sch. 2, p. 8, Line 2. The Outside Services ratemaking adjustments should total ($1,151,258), bringing the reported $25,151,180 from Columbia Exhibit 4, Sch 1, p. 2 to $24,751,180.

B. Please refer to Attachment B.

C. All amounts are recorded above-the-line for ratemaking.

D. All Normalized O&M amounts for the FPFTY Exhibit No. 104, Schedule No. 1 have been adjusted to remove Lobbying expenses and therefore the amount claimed for Lobbying is $0 for the FPFTY.

E. Columbia does not budget down to the FERC account level therefore a statement showing budgeted versus actual outside services expense incurred for the fiscal periods ended November 30, 2019, November 30, 2020, and November 30, 2021 in a similar template to the breakdown of outside services provided in Exhibit 4, Schedule 14, p. 3 is not available.

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-023-D:

Reference Columbia Exhibit 104, Schedule 1, p. 2 concerning the FTY and FPFTY outside services claim, provide a breakdown of FTY and FPFTY outside services per the template provided in Exhibit 4, Schedule 14, p. 3 for the last three completed years.

Response:

Please note, the level of detail presented for actual results in the HTY does not exist for the FTY and FPFTY as the budget is not compiled by account number.

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

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Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-028-D:

Reference Columbia Exhibit 4, Schedule 2, p. 11 concerning injuries and damages. Provide the following:

A. The source documentation used to obtain the GDP Deflator column 2 and 3 details.

B. Explanation with rationale for applying GDP Deflator to the actual amount paid for injuries and damages each year for 2016-17 through 2020-21 to determine the normalized HTY amount of $327,676 as the basis for the budgeted FTY claim.

Response:

A. Please refer to Attachment A for the requested information. The GDP from Global Insight for January 2022 was utilized.

B. A five-year average, unadjusted for inflation, will not provide an appropriate level of cash payments for 2020-21 costs. The cash payments incurred five years ago to repair damaged property will cost more today due to inflation. While a five-year average appropriately reflects the variable nature of Injuries and Damages, it does not capture the inflationary effects. Thus, the GDP Deflator is used to reflect real dollars for the twelve months ending November 2021, and as such, it is an appropriate basis for determining the budgeted FTY claim.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-038-D:

Reference Columbia Exhibit 104, Schedule 2, pp. 3-4 concerning the advertising expense, provide the following:

A. Basis and calculation for the FTY budgeted increase of $466,706 and FPFTY budgeted increase of $178,668.

B. Advertising expense breakdown by category for the FTY and FPFTY similar to the breakdown by category provided for the HTY in Exhibit 4, Schedule 2, p. 15.

Response:

A. Please note, the level of detail presented for actual results in the HTY does not exist for the FTY and FPFTY as the budget is not compiled by account number. As noted on page 5 of the testimony of Witness Bly, budgeted expenses are grounded in a trailing 12-month historical spend. The budget of $866k is in line with actual spend from 2021 and 2020. FPFTY Budget held consistent with 2022 calendar year budget.

B. Please see response to A above.

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-054-D:

Reference Columbia Exhibit 4, Schedule 1, p. 2 and Schedule 2, p. 20 concerning NCSC incentive compensation expense:

A. Provide a monthly breakdown of incentive compensation for the fiscal periods ended November 30, 2019 and November 30, 2020 in the same columnar style and actual total incentive compensation charged/paid as provided on page 20.

B. Provide a list of all financial triggers and their specified minimum performance standards to be achieved in order for any incentive amounts to become payable under each of incentive plan.

C. State whether financial goals and other triggers must be met before any incentive compensation is paid.

D. Identify the portion of the incentive compensation expensed and capitalized that was paid independent of meeting financial goals.

Response:

A. Please see Attachment A. While preparing the response to this request the Company discovered that the calculations on Exhibit 4, Schedule 2, Page 20, Column 1 inadvertently utilized "net" amounts (O&M only) instead of "gross" amounts (both O&M and Capital). Please see Attachment A, page 1 for an updated Exhibit 4, Schedule 2, Page 20. This update has no impact to the Company's FPFTY claim for NCSC Incentive Compensation.

The data requested is included as pages 2 and 3 of Attachment A. Note the same updated information is provided for these periods, which were included in Columbia's prior rate case filings.

B. Please see the response to I&E-RE-15-D, part C.

C. Please see the response to I&E-RE-15-D, part D.

D. Tables A & B below represent portion of the amount of incentive compensation that was paid, independent of meeting the financial goals. Please see the response to I&E-RE-016-D, part A for the associated payouts for Columbia Direct and Part A above for NCSC payouts in 2019 – 2021 for performance period 2018 - 2020. Also note that the NCSC payout in 2022 for the 2021 performance period was $28,114,902.

I&E-RE-054-D TABLE A

Percentage of Incentive Compensation Paid Independent of Financial Goals		
Company	Performance Period	Percentage CIP Paid
12	2018	7%
	2019	4%
	2020	25%
	2021	16%

I&E-RE-054-D TABLE B

Percentage of Incentive Compensation Paid Independent of Financial Goals		
Company	Performance Period	Percentage CIP Paid
37	2018	6%
	2019	3%
	2020	23%
	2021	16%

Columbia Gas of Pennsylvania, Inc.
NiSource Corporate Services Company
Twelve Months Ended November 30, 2021
Incentive Compensation Adjustment

Line No.	Month		As Filed: NCSC - Total Accrued Incentive Compensation $ (1)	As Filed: NCSC - CPA % of Total NCSC Incentive Compensation (2)	As Filed: CPA Portion of Accrued Incentive Compensation $ (3)	Corrected: NCSC - Total Accrued Incentive Compensation $ (1)	Corrected: NCSC - CPA % of Total NCSC Incentive Compensation (2)	Corrected: CPA Portion of Accrued Incentive Compensation $ (3)
1	December-20		12,810,410	15.7506%	2,017,713	15,223,643	16.1130%	2,452,988
2	January-21		2,249,856	13.5223%	304,232	2,576,087	13.9078%	358,278
3	February-21		1,905,783	17.3728%	331,088	2,237,065	17.8541%	399,408
4	March-21		969,500	15.9863%	154,987	1,142,562	16.1120%	184,090
5	April-21		1,922,761	15.9747%	307,156	2,255,503	16.2985%	367,612
6	May-21		1,927,638	15.7790%	304,163	2,249,952	16.1610%	363,615
7	June-21		2,000,669	16.0524%	321,154	2,335,078	16.5330%	386,058
8	July-21		2,008,653	15.7984%	317,335	2,322,577	16.2550%	377,536
9	August-21		2,017,779	15.9594%	322,025	2,336,017	16.3549%	382,053
10	September-21		6,656,422	15.9276%	1,060,209	7,707,582	16.3296%	1,258,616
11	October-21		2,494,019	15.4661%	385,728	2,919,019	15.9510%	465,613
12	November-21		2,489,177	16.2081%	403,448	2,898,154	17.4564%	505,913
13	Total Per Books Accrued Incentive Compensatio	Sum of Ln 1 through Ln 12	39,452,667		6,229,238	46,203,240		7,501,778
14	Total Incentive Compensation Paid in 2021		12,409,737	16.2081% (a)	2,011,382	12,409,737	17.4564% (a)	2,166,291
15	Gross Historic Test Year Adjustment	Ln 14 - Ln 13			(4,217,856)			(5,335,488)
16	Percentage of Labor charged to O&M	Exh. 4, Sch. 2, Pg. 21, Ln. 14			71.42%			71.42%
17	Net Historic Test Year Adjustment	Ln 15 x Ln 16			(3,012,477)			(3,810,712)

(a) CPA Portion of Incentive Compensation is same percentage used for the CPA Labor & Benefits Allocation. This percentage was based on November 2021 labor.

Columbia Gas of Pennsylvania, Inc.
NiSource Corporate Services Company
Twelve Months Ended November 30, 2019
Incentive Compensation Adjustment

			As Filed			Corrected		
Line No.	Month		NCSC - Total Accrued Incentive Compensation $ (1)	NCSC - CPA % of Total NCSC Labor (2)	CPA Portion of Accrued Incentive Compensation $ (3)	NCSC - Total Accrued Incentive Compensation $ (1)	NCSC - CPA % of Total NCSC Labor (2)	CPA Portion of Accrued Incentive Compensation $ (3)
1	December-18		(839,055)	13.8813%	(116,471)	(989,036)	14.1044%	(139,498)
2	January-19		-	15.3633%	0	-	15.3633%	0
3	February-19		2,080,073	15.1491%	315,113	2,416,545	14.1392%	341,680
4	March-19		993,154	15.1373%	150,337	1,159,519	13.7328%	159,235
5	April-19		1,043,183	14.7275%	153,635	1,223,240	13.2348%	161,893
6	May-19		1,043,123	15.3016%	159,614	1,227,076	13.8581%	170,050
7	June-19		3,657,002	15.2273%	556,864	4,262,332	14.3353%	611,019
8	July-19		1,489,139	14.9132%	222,078	1,741,808	13.0944%	228,079
9	August-19		1,477,302	15.0588%	222,463	1,716,533	14.0237%	240,721
10	September-19		1,480,656	15.1309%	224,036	1,725,890	13.9829%	241,330
11	October-19		1,481,572	14.6641%	217,259	1,715,263	13.8284%	237,194
12	November-19		1,480,015	14.9380%	221,085	1,717,038	14.4847%	248,708
13	Total Accrued Incentive Compensation	Sum of Ln 1 through Ln 12	15,386,164		2,326,013	17,916,208		2,500,411
14	Incentive Compensation Paid in 2019		16,425,539	14.96% (a)	2,456,883	16,425,539	14.48% (a)	2,379,193
15	Gross Historic Test Year Adjustment	Ln 14 - Ln 13			130,870			(121,218)
16	Percentage of Labor charged to O&M	Exh. 4, Sch. 2, Pg. 23, Ln. 4			78.28%			78.28%
17	Net Historic Test Year Adjustment	Ln 15 x Ln 16			102,444			(94,888)

(a) CPA Portion of Incentive Compensation is same percentage used for the CPA Labor & Benefits Allocation. This percentage was determined by taking the average for the twelve months ended November 2019 labor.

Columbia Gas of Pennsylvania, Inc.
NiSource Corporate Services Company
Twelve Months Ended November 30, 2020
Incentive Compensation Adjustment

Line No.	Month		As Filed: NCSC - Total Accrued Incentive Compensation $ (1)	As Filed: NCSC - CPA % of Total NCSC Labor (2)	As Filed: CPA Portion of Accrued Incentive Compensation $ (3)	Corrected: NCSC - Total Accrued Incentive Compensation $ (1)	Corrected: NCSC - CPA % of Total NCSC Labor (2)	Corrected: CPA Portion of Accrued Incentive Compensation $ (3)
1	December-19		4,023,965	14.9385%	601,121	4,664,020	13.5859%	633,649
2	January-20		(1,665,556)	15.2572%	(254,117)	(1,930,889)	14.5071%	(280,116)
3	February-20		2,023,917	14.8626%	300,807	2,340,396	14.2503%	333,513
4	March-20		2,165,194	15.1927%	328,951	2,499,267	14.3078%	357,589
5	April-20		2,023,903	15.0029%	303,644	2,343,485	13.7834%	323,011
6	May-20		(8,091,070)	15.0484%	(1,217,578)	(9,370,633)	14.0319%	(1,314,875)
7	June-20		2,030	14.8544%	302	-	14.8544%	0
8	July-20		(142)	14.8189%	(21)	-	14.8189%	0
9	August-20		(142)	14.9442%	(21)	-	14.9442%	0
10	September-20		0	14.6149%	0	-	14.6149%	0
11	October-20		(342)	16.3280%	(56)	-	16.3280%	0
12	November-20		(42)	17.1189%	(7)	-	17.1189%	0
13	Total Per Books Accrued Incentive Compensation	Sum of Ln 1 through Ln 12	481,715		63,025	545,646		52,771
14	Total Incentive Compensation Paid in 2020		16,709,669	17.1189% (a)	2,860,519	16,709,669	17.1189% (a)	2,860,519
15	Gross Historic Test Year Adjustment	Ln 14 - Ln 13			2,797,494			2,807,748
16	Percentage of Labor charged to O&M	Exh. 4, Sch. 2, Pg. 21, Ln. 14			75.73%			75.73%
17	Net Historic Test Year Adjustment	Ln 15 x Ln 16			2,118,553			2,126,318

(a) CPA Portion of Incentive Compensation is same percentage used for the CPA Labor & Benefits Allocation. This percentage was based on November 2020 labor.

Columbia Gas of Pennsylvania, Inc. `

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-019-D:

Reference Columbia 104, Schedule 1, pp. 2-4 concerning other employee benefits of $7,372,000 (FTY) and $7,923,000 (FPFTY). State whether all allocated amounts from the parent company and/or affiliated companies are included in response to I&E-RE-18-D, Part A above. If not, identify the following:

A. The account (on Columbia Ex. 104, Sch. 1, p. 2) where such amounts are reflected.

B. The attributable expense amount for profit sharing benefits.

C. The attributable capitalized amount for profit sharing benefits.

D. The attributable expense amount for stock rewards.

E. The attributable capitalized amount for stock rewards.

Response:

A. No, the response to I&E-RE-018 does not include amounts allocated to Columbia for NCSC. Allocations from the shared service company (NCSC) are included in line 20 of Exhibit 104, Schedule 1.
B. NCSC Profit Sharing Expense: FTY $216K, FPFTY $215K
C. NCSC Profit Sharing Capital: $0 for both FTY and FPFTY
D. NCSC Stock Rewards Expense: FTY $2,546, FPFTY $2,665
E. NCSC Stock Rewards Capital: $0 for both FTY and FPFTY

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-069-D:

Reference Columbia Exhibit 104, Schedule 1, pp. 3-4, Schedule 2, p. 18, and Columbia Statement No. 14, pp. 29-30 concerning the FPFTY other adjustments for the Picarro Leak Detection (PLD) Program of $10,900,000 under Strategic Operation and Maintenance Safety Initiatives. Provide the following:

A. Detailed basis, breakdown, and calculation for the FPFTY PLD program expense claim of $10,900,000 to enhance the process for leak detection and to refine the prioritization of repairs and replacements for natural gas distribution system.

B. FPFTY dollar amount of capitalized cost (including breakdown) for the PLD program.

C. Budget versus actual amount of O&M expense and capitalized cost (including breakdown) incurred under PLD program or under other project title for addressing leak detection in the fiscal years ended November 30, 2017, November 30, 2018, November 30, 2019, November 30, 2020, and November 30, 2021.

D. Breakdown of the FPFTY PLD program cost between one-time and recurring cost along with the frequency of recurrence.

E. Dollar amount by equipment, apparatus, and device/detector to be installed and their expected/normal service life included in the PLD Program cost of $10,900,000.

Response:

A. Please see the attachment A. Through the 2021 Picarro work, Columbia performed pilots of maps and expects to find 2 times the number of leaks with the Picarro Surveyor, when compared to traditional leak inspection. The Picarro Surveyor is able to sense indications as small as 1 part per billion, allowing for it to be able to pick up leaks up to 600' away from the vehicle. In addition to the increased sensitivity, the technology performs an area based survey, which allows for better coverage of all Columbia assets and potential leak sources. The additional costs described in the attachment are based on finding 2 times the number of leaks, when compared to traditional methods.

B. The projected costs included in the breakdown are all O&M.

C. Picarro pilot started in 2021, please see attachment B for the cost breakdown.

D. There will be a one-time cost of approximately $620,000 for tooling, fleet and the initial training of the additional staff required to support the Picarro program. Columbia expects $10,280,000 to reoccur annually for the costs related to the additional staff required to investigate and repair the additional leaks found with the Picarro program.

E. The $10,900,000 cost is related directly to the leak inspection and repair costs and doesn't include any costs related to the device.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

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BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-072-D:

Reference Columbia Exhibit 104, Schedule 1, pp. 3-4 and Schedule 2, p. 18 concerning the FPFTY other adjustments for education cost of $33,500. Provide the following:

A. Detailed basis with breakdown for the FPFTY expense claim.

B. Type of education, benefits, and beneficiary of the education program.

Response:

A. Columbia will provide customer education of Renewable Natural Gas ("RNG") and the proposed Green Path Rider through multiple channels to make sure that we reach customers through their preferred channel. The company plans to spend $22,000 on residential customers, using a combination of email and paid social media messages. The company plans to spend $11,200 on commercial customers using direct mail and commercial publications.

B. Columbia will provide education and awareness through channels such as social application (like Facebook), email, direct mail, website and/or newsletters. The benefits of providing education allows customers to learn about RNG and carbon offsets and the benefit they can provide in reducing carbon emissions.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-064-D:

Reference Columbia Exhibit 4, Schedule 1, p. 2 concerning the COVID 19 uncollectible deferral. Provide the following:

A. Breakdown by month for COVID-19 deferral of $2,282,078 recorded for the fiscal year ended November 30, 2020.

B. Breakdown by month for COVID-19 deferral of $2,060,776 recorded for the fiscal year ended November 30, 2021.

C. Indicate whether Columbia continued COVID-19 uncollectible deferral in the fiscal year ended November 30, 2021 and the current fiscal year ending November 30, 2022 and provide dollar amounts of the deferral by month where applicable.

D. If response to Part C above is yes, provide deferral amount for the period December 1, 2021 till December 29, 2021 being the effective date of new rates and the end date of COVID-19 uncollectible expense deferral (Per the Commission Order in 2021 rate case at Docket No. R-2021-3024296).

E. Confirm that the Company ceased deferral of COVID-19 related uncollectibles upon the effective date of new rates (December 29, 2021) referenced in the 2021 rate case order at Docket No. R-2021-3024296 (Commission Order entered on December 16, 2021, para no. 24(iv), pp. 13-14).

F. If the response to Part E above is no, provide the deferral amount from December 29, 2021 through December 31, 2021, and monthly deferral amounts from January 1, 2022 through the most recent month available.

G. If the response to Part E above is no, explain why the Company continued the deferrals.

H. If the response to Part E above is no, state whether the Company agrees to cease COVID-19 related uncollectible deferrals upon the effective date of new rates in this ongoing base rate case proceeding.

Response:

A. Please refer to Attachment A.

B. Please refer to Attachment A.

C. Yes, the Company ceased deferral of COVID-19 related uncollectibles upon the effective date of new rates, December 29, 2021. Please refer to Attachment A.

D. Please refer to Attachment A.

E. Yes, the Company ceased deferral of COVID-19 related uncollectibles upon the effective date of new rates, December 29, 2021, however during March 2022 it was determined that a downward adjustment in the amount of $1,216,000 was needed to the Deferral balance due to a billing system error. The updated annual amortization expense amount is $ 708,091 as determined in TABLE I&E-RE-064-D below and within Attachment A. Columbia will update its claim for COVID-19 Deferral Amortization in Rebuttal Testimony as follows:

TABLE I&E-RE-064-D

	As Filed:	As Revised
Total COVID Deferral as of December 29, 2021 (Excel Rows 15, 47 & 51)	$ 5,164,211.71	$ 5,164,211.71
2022 Amortization per final order R-2021-3024296	$ (1,115,849.00)	$ (1,115,849.00)
Net amount included on Exhibit 104, Schedule 2, Page 17, Line 6	$ 4,048,362.71	$ 4,048,362.71
Billings Charge-Off Correction	-	$ (1,216,000.00)
Net amount to be Amortized Starting January 1, 2023	$ 4,048,362.71	$ 2,832,362.71
Amortization period in Years	4.00	4.00
Annual Amortization Starting January 1, 2023	**$ 1,012,090.68**	**$ 708,090.68**

F. The response to Part C is yes.

G. The response to Part C is yes.

H. The response to Part C is yes.

I&E Statement No. 2
Witness: Christopher Keller

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Direct Testimony

of

Christopher Keller

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Christopher Keller. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

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

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. WHAT IS YOUR EDUCATION AND EMPLOYMENT BACKGROUND?

A. An outline of my education and employment history is attached as Appendix A.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. I&E's analysis in this proceeding is based on its responsibility to represent the public interest. This responsibility requires balancing the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to review the base rate filing of Columbia Gas of Pennsylvania, Inc. (Columbia or Company) and make recommendations regarding the Company's rate of return, including capital structure, cost of long-term debt, cost of short-term debt, the cost of equity, and the overall fair rate of return for the fully projected future test year (FPFTY) ending December 31, 2023.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 2 contains schedules that support my direct testimony.

<u>BACKGROUND</u>

Q. WHAT IS THE GENERAL DEFINITION OF RATE OF RETURN IN THE CONTEXT OF A BASE RATE CASE?

A. Rate of return is one of the components of the revenue requirement formula. Rate of return is the amount of revenue an investment generates in the form of net income and is usually expressed as a percentage of the amount of capital invested over a given period of time.

Q. WHAT IS THE REVENUE REQUIREMENT FORMULA?

A. The revenue requirement formula used in base rate cases is as follows:

$$RR = E + D + T + (RB \times ROR)$$

Where:

RR = Revenue Requirement

E	=	Operating Expenses
D	=	Depreciation Expense
T	=	Taxes
RB	=	Rate Base
ROR	=	Overall Rate of Return

In the above formula, the rate of return is expressed as a percentage. The calculation of that percentage is independent of the determination of the appropriate rate base value for ratemaking purposes. As such, the appropriate total dollar return is dependent upon the proper computation of the rate of return and the proper valuation of the Company's rate base.

Q. WHAT CONSTITUTES A FAIR AND REASONABLE OVERALL RATE OF RETURN?

A. A fair and reasonable overall rate of return is one that will allow the utility an opportunity to recover those costs prudently incurred by all classes of capital used to finance the rate base during the prospective period in which its rates will be in effect.

The *Bluefield Water Works & Improvements Co. v. Public Service Comm. of West Virginia,* 262 U.S. 679, 692-93 (1923), and the *FPC v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944) cases set forth the principles that are generally accepted by regulators throughout the country as the appropriate criteria for measuring a fair rate of return:

1. A utility is entitled to a return similar to that being earned by other enterprises with corresponding risks and uncertainties, but not as high as those earned by highly profitable or speculative ventures.
2. A utility is entitled to a return level reasonably sufficient to assure financial soundness.
3. A utility is entitled to a return sufficient to maintain and support its credit and raise necessary capital.
4. A fair return can change (increase or decrease) along with economic conditions and capital markets.

Q. EXPLAIN HOW THE OVERALL RATE OF RETURN IS TRADITIONALLY CALCULATED IN BASE RATE PROCEEDINGS.

A. In base rate proceedings, the overall rate of return is traditionally calculated using the weighted average cost of capital method. To calculate the weighted average cost of capital, a company's capital structure must first be determined by comparing the percentage of each capitalization component, which has financed rate base, to total capital. Next, the effective cost rate of each capital structure component must be determined. The historical component of the cost rate of debt can be computed accurately, and any future debt issuances are based on estimates. The cost rate of common equity is not fixed and is more difficult to measure.

Because of this difficulty, a proxy group is used as discussed later in this testimony. Next, each capital structure component percentage is multiplied by its corresponding effective cost rate to determine the weighted capital component cost rate. The I&E table in the *"I&E Position"* section below demonstrates the interaction of each capital structure component and its corresponding effective cost rate. Finally, the sum of the weighted cost rates produces the overall rate of return. This overall rate of return is multiplied by the rate base to determine the return portion of a company's revenue requirement.

COMPANY'S RATE OF RETURN CLAIM

Q. WHO IS THE COMPANY'S RATE OF RETURN WITNESS?

A. Columbia witness Paul R. Moul is the primary witness addressing rate of return (Columbia Statement No. 8). Mr. Moul provided analysis for the claimed capital structures, long-term debt, short-term debt, and cost of common equity for Columbia.

Q. PLEASE SUMMARIZE THE COMPANY'S RATE OF RETURN CLAIM.

A. Mr. Moul recommended the following rate of return for the Company based on its FPFTY ending December 31, 2023 (Columbia Exhibit No. 400, Schedule 1, p. 1):

Type of Capital	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	43.23%	4.51%	1.95%
Short-Term Debt	2.39%	1.65%	0.04%
Common Equity	54.38%	11.20%	6.09%
Total	100.00%		8.08%

I&E POSITION

Q. PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATION.

A. I recommend the following rate of return for the Company (I&E Exhibit No. 2, Schedule 1):

Type of Capital	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	43.23%	4.51%	1.95%
Short-Term Debt	2.39%	1.65%	0.04%
Common Equity	54.38%	9.61%	5.23%
Total	100.00%		7.22%

PROXY GROUP

Q. WHAT IS A PROXY GROUP AS USED IN BASE RATE CASES?

A. A proxy group is a set of companies that have similar traits of risk in comparison to the subject utility. This group of companies acts as a benchmark for determining the subject utility's rate of return in a base rate case.

Q. WHAT ARE THE REASONS FOR USING A PROXY GROUP?

A. A proxy group's cost of equity is used as a benchmark to satisfy the long-established guideline of utility regulation that seeks to provide the subject utility with the opportunity to earn a return similar to that of enterprises with corresponding risks and uncertainties.

A proxy group is typically utilized since the use of data exclusively from one company may be less reliable. The lower reliability occurs because the data for one company may be subject to events that can cause short-term anomalies in the marketplace. The rate of return on common equity for a single company could become distorted in these circumstances and would therefore not be representative of similarly situated companies. Therefore, a proxy group has the effect of smoothing out potential anomalies associated with a single company.

Q. WHAT CRITERIA DID YOU USE IN SELECTING YOUR GAS INDUSTRY PROXY GROUP?

A. The criteria for my proxy group was designed to select companies that are most like the natural gas distribution company subject in this proceeding. I applied the following criteria to Value Line's Natural Gas Utility company group:

1. Fifty percent or more of the company's revenues must be generated from the regulated gas utility industry;
2. The company's stock must be publicly traded;
3. Investment information for the company must be available from more than one source, which includes Value Line;
4. The company must not be currently involved/targeted in an announced merger or acquisition;
5. The company must have four consecutive years of historic earnings data; and

6. The company must be operating in a state that has a deregulated gas utility market.

Q. WHAT CRITERIA DID MR. MOUL USE IN SELECTING HIS GAS PROXY GROUP COMPANIES?

A. Mr. Moul began with the ten gas utility companies in Value Line's Investment Survey. From there, he eliminated one company, UGI Corp., due to its diversified businesses, which includes six reportable segments. These various business segments include propane, international liquefied petroleum gas segments, natural gas utility, energy services, and gas generation. Mr. Moul also noted that one of the companies in his Gas Group, South Jersey Industries, Inc., entered into an agreement to be acquired by a private equity investor. However, Mr. Moul did not remove South Jersey Industries, Inc. as his analysis was completed prior to the announcement of the acquisition. Beyond his rationale for excluding UGI Corp., Mr. Moul has not provided a list of criteria used to determine the remainder of his "Gas Group" other than that the Gas Group is made up of the companies the Commission's Bureau of Technical Utility Services uses to calculate the cost of equity in its Quarterly Earnings Reports (Columbia Gas Statement No. 8, p. 5, lines 2-20).

Q. WHAT PROXY GROUP DID YOU USE IN YOUR ANALYSIS?

A. I included the following six companies in my proxy group (I&E Exhibit No. 2, Schedule 2):

Atmos Energy Corp.	ATO
Chesapeake Utilities Corp.	CPK
NiSource Inc.	NI
Northwest Natural Holding Co.	NWN
ONE Gas, Inc.	OGS
Spire Inc.	SR

Q. WHAT PROXY GROUP DID MR. MOUL USE IN HIS ANALYSIS?

A. Mr. Moul utilized the following nine companies in his Gas Group (Columbia Exhibit No. 400, Schedule 3, p. 2):

Atmos Energy Corp.	ATO
Chesapeake Utilities Corp.	CPK
New Jersey Resources Corp.	NJR
NiSource Inc.	NI
Northwest Natural Holding Co.	NWN
ONE Gas, Inc.	OGS
South Jersey Industries, Inc.	SJI
Southwest Gas Holdings, Inc.	SWX
Spire, Inc.	SR

Q. DO YOU AGREE WITH MR. MOUL'S GAS PROXY GROUP?

A. Not entirely. While Mr. Moul's Gas Group included all six of the companies in my proxy group, I have excluded three of the companies he uses.

Q. PLEASE LIST THE THREE COMPANIES MR. MOUL HAS INCLUDED THAT YOU DO NOT AND EXPLAIN WHY YOU HAVE EXCLUDED THEM FROM YOUR PROXY GROUP.

A. The three companies Mr. Moul included in his Gas Group that I have excluded from my proxy group are New Jersey Resources Corp. South Jersey Industries, Inc., and Southwest Gas Holdings, Inc. I excluded New Jersey Resources Corp. and Southwest Gas Holdings, Inc. as these companies did not meet my first criterion that fifty percent or more of the company's revenues must be generated from the regulated gas utility industry. This is important because revenues represent the percentage of cash flow a company receives from each business line related to providing a good or service. If less than fifty percent of revenues come from the regulated gas sector, the companies are not comparable to the subject utility as they do not provide a similar level of regulated business. I also removed South Jersey Industries, Inc., as it did not meet my third criterion that the company must not be currently involved/targeted in announced merger or acquisition. As stated above, South Jersey Industries, Inc. has recently entered into an agreement to be acquired by a private equity investor. Therefore, these companies should be removed from the proxy group.

CAPITAL STRUCTURE

Q. WHAT IS A CAPITAL STRUCTURE?

A. A capital structure represents how a firm has financed its rate base with different sources of funds. The primary funding sources are long-term debt and common equity. A capital structure may also include preferred stock and/or short-term debt.

Q. WHAT IS THE COMPANY'S CLAIMED CAPITAL STRUCTURE?

A. The Company's claimed capital structure is summarized in the table below (Columbia Statement No. 8, p. 2, line 5 and Columbia Exhibit No. 400, Schedule 1, p. 1):

Type of Capital	Ratio
Long-Term Debt	43.23%
Short-Term Debt	2.39%
Common Equity	54.38%
Total	100.00%

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIMED CAPITAL STRUCTURE?

A. Mr. Moul stated that these capital structure ratios are the best approximation of the mix of capital the Company will employ to finance its rate base during the period that new rates are in effect (Columbia Statement No. 8, p. 18, lines 22-24).

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE COMPANY'S CAPITAL STRUCTURE?

A. I recommend using the Company's claimed capital structure as presented in the table above.

Q. WHAT IS THE BASIS FOR YOUR CAPITAL STRUCTURE RECOMMENDATION?

A. Although I believe a capital structure of 50% long-term debt and 50% common equity is optimal when trying to balance the financial integrity of a utility as well as trying to control costs to ratepayers, in this proceeding, I recommend using the Company's claimed capital structure as it falls within the range of my proxy group's 2020 capital structures, which is the most recent information available at the time of my analysis. The 2021 range consists of long-term debt ratios ranging from 35.93% to 60.71%, short-term debt ratios ranging from 0.00% to 15.91%, and equity ratios ranging from 35.60% to 60.67%, with a 2021 average of 47.95% for long-term debt, 8.74% for short-term debt, and 43.31% for common equity (I&E Exhibit No. 2, Schedule 2).

It is worth noting that the Company's equity ratio is well above the average and on the higher end of the proxy group's equity ratios. In fact, five of the six companies in my proxy group have a capital structure wherein the equity ratio is less than the Company's equity ratio. This equity heavy capital structure must be recognized when considering the Company's financial risk, as higher equity ratios generally correspond with lower financial risk which Mr. Moul acknowledges this in his risk analysis when comparing the Company's common equity ratio to his Gas Group and S&P Public Utilities (Columbia Statement No. 8, p. 15, lines 3-4).

Q. WHAT IS THE COST SAVINGS TO RATEPAYERS IF THE COMPANY WERE TO EMPLOY A 50/50 CAPITAL STRUCTURE COMPARED TO THE COMPANY'S FILED CAPITAL STRUCTURE?

A. The example below shows the cost savings to ratepayers if the Company were to employ a 50% long-term debt and 50% common equity capital structure in its cost of capital while maintaining its claimed return on equity and rate base:

Columbia Gas of Pennsylvania, Inc.			
As Filed Capital Structure			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost Rate**
Long-Term Debt	43.23%	4.51%	1.95%
Short-Term Debt	2.39%	1.65%	0.04%
Common Equity	54.38%	11.20%	6.09%
Total	100.00%		8.08%
50/50 Optimal Capital Structure			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost Rate**
Long-Term Debt	50.00%	4.51%	2.26%
Common Equity	50.00%	11.20%	5.60%
Total	100.00%		7.86%
Difference in the Overall Rate of Return 8.08% - 7.86% = 0.22%			0.22%
Claimed Rate Base*			$2,958,295,013
Impact Prior to Gross Revenue Conversion Factor			**$6,508,249**
(0.0022 x $2,958,295,013)			
Gross Revenue Conversion Factor**			1.42417301
Total Impact			**$9,268,873**
1.42417301 x $6,508,249			
*(Columbia Exhibit 102, Schedule 3, p. 3			
** (Columbia Exhibit No. 102, Schedule 3, p. 5)			

In this example, if the Company were to employ a 50/50 capital structure, the cost savings to ratepayers would be $9,268,873. While I understand achieving and maintaining an exact 50/50 capital structure is not truly feasible, this example is intended to demonstrate Columbia's financial security as compared to its peers and prove that Mr. Moul's various "add-ons" to his cost of equity calculations are unnecessary.

COST OF LONG-TERM DEBT

Q. WHAT IS THE COMPANY'S CLAIMED COST RATE OF LONG-TERM DEBT?

A. The Company's claimed long-term debt cost rate is 4.51% for the FPFTY (Columbia Statement No. 8, p. 19, lines 16-17).

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE COMPANY'S COST RATE OF LONG-TERM DEBT?

A. I recommend using the Company's long-term debt cost rate of 4.51%.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION TO USE THE COMPANY'S COST RATE OF LONG-TERM DEBT?

A. Although this falls outside my proxy group's implied long-term debt cost range of 1.74% to 3.96%, with an average implied long-term debt cost of 3.09% for 2021 (I&E Exhibit No. 2, Schedule 3), I recommend the Company's cost rate of long-term debt be used as the data used to determine the long-term debt cost range does not take into account the current environment of increasing interest rates.

COST OF SHORT-TERM DEBT

Q. WHY IS SHORT-TERM DEBT INCLUDED IN THIS PROCEEDING?

A. Natural gas distribution companies (NGDCs) are able to store gas, which is advantageous because it allows NGDCs to pump gas into storage for future use during the summer months when demand and cost for gas are lower. Current gas storage is typically financed by short-term debt. Since ratemaking principles allow for the stored gas in rate base, the associated short-term debt is allowed in a company's capital structure.

Q. WHAT IS THE COMPANY'S CLAIMED COST RATE OF SHORT-TERM DEBT?

A. The Company's claimed short-term debt cost rate is 1.65% for the FPFTY (Columbia Statement No. 8, p. 19, lines 20-21).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIMED COST RATE OF SHORT-TERM DEBT?

A. Mr. Moul stated that the Company obtains its short-term debt from the NiSource money pool, which has commercial paper as its source (Columbia Statement No. 8, p. 19, line 25 through p. 20, line 1). The cost of short-term debt for the

Company is comprised of the London Interbank Offered Rate (LIBOR) plus a spread for NiSource commercial paper. For this rate case, Mr. Moul used the average of Bloomberg's three-month forecasted LIBOR rate from the first quarter of 2023 through the fourth quarter of 2023 of 1.47% (I&E Exhibit No. 2, Schedule 4), and when the 0.20% margin is added, Mr. Moul's short-term debt cost rate estimate is 1.65% when rounded to the nearest five basis points.

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE COMPANY'S COST RATE OF SHORT-TERM DEBT?

A. I recommend using the Company's claimed short-term debt cost rate of 1.65%.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION TO USE THE COMPANY'S CLAIMED COST RATE OF SHORT-TERM DEBT?

A. Bloomberg, as used by Mr. Moul, is the only reliable source I have found that forecasts a LIBOR rate at the time of my analysis, and, therefore, I do not oppose the Company's claimed cost rate. It should be noted that it is my understanding that the LIBOR rate is being phased out and being replaced with the Secured Overnight Financing Rate (SOFR). For example, Blue Chip Financial Forecast, stated that beginning in January 2022, LIBOR rates will be discontinued and replaced with the SOFR rate in forecasting short-term borrowing rates (I&E Exhibit No. 2, Schedule 5).

<u>COST OF COMMON EQUITY</u>

<u>COMMON METHODS</u>

Q. WHAT METHODS ARE COMMONLY PRESENTED BY UTILITIES IN DETERMINING THE COST OF COMMON EQUITY?

A. Four methods commonly presented to estimate the cost of common equity are the Discounted Cash Flow (DCF), the Capital Asset Pricing Model (CAPM), the Risk Premium (RP) Method, and the Comparable Earnings (CE) Method.

Q. WHAT IS THE THEORETICAL BASIS FOR THE DCF METHOD?

A. The DCF method is the "dividend discount model" of financial theory, which maintains that the value (price) of any security or commodity is the discounted present value of all future cash flows. The DCF method assumes that investors evaluate stocks in the classical economic framework, which maintains that the value of a financial asset is determined by its earning power, or its ability to generate future cash flows.

Q. WHAT IS THE THEORETICAL BASIS FOR THE CAPM?

A. The CAPM describes the relationship of a stock's investment risk and its market rate of return. It identifies the rate of return investors expect so that it is comparable with returns of other stocks of similar risk. This method hypothesizes that the investor-required return on a company's stock is equal to the return on a "risk free" asset plus an equity premium reflecting the company's investment risk.

In the CAPM, two types of risk are associated with a stock: (1) firm-specific risk (unsystematic risk); and (2) market risk (systematic risk), which is measured by a firm's beta. The CAPM allows for investors to receive a return only for bearing systematic risk. Unsystematic risk is assumed to be diversified away, and therefore, does not earn a return.

Q. WHAT IS THE THEORETICAL BASIS FOR THE RP METHOD?

A. The theoretical basis for the RP method is a simplified version of the CAPM. The RP method's theory is that common stock is riskier than debt and, thus, investors require a higher expected return on stocks than bonds. In the RP approach, the cost of equity is made up of the cost of debt and a risk premium. While the CAPM uses the market risk premium, it also directly measures the systematic risk of a company group through the use of beta. The RP method does not measure the specific risk of a company.

Q. WHAT IS THE THEORETICAL BASIS FOR THE CE METHOD?

A. The CE method utilizes the concept of "opportunity cost." This means that investors will likely dedicate their capital to the investment offering the highest return with similar risk to alternative investments. Unlike the DCF, CAPM, and the RP methods, the CE method is not market-based and relies upon historic accounting data. The most problematic issue with the CE method is determining what constitutes comparable companies.

Q. WHAT METHOD DO YOU RECOMMEND USING TO DETERMINE AN APPROPRIATE COST OF COMMON EQUITY FOR COLUMBIA?

A. I recommend using the DCF method as the primary method to determine the cost of common equity. I provide the results of my CAPM as a comparison and not as a check to the DCF results. Although no one method can capture every factor that influences an investor, including the results of methods that are less reliable than the DCF does not make the end result more reliable or more accurate. My recommendation is also consistent with the methodology historically used by the Commission in base rate proceedings, even as recently as 2017, 2018, 2020, and 2021.[1]

Q. PLEASE EXPLAIN WHY YOU CHOSE TO USE THE DCF AS THE PRIMARY METHOD IN YOUR ANALYSIS.

A. I have used the DCF as the primary method for several reasons. First, the DCF is appealing to investors as it is based upon the concept that the receipt of dividends in addition to the expected appreciation is the total return requirement determined by the market.[2] Second, the use of a growth rate and expected dividend yield are

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[1] *Pa. PUC v. City of DuBois – Bureau of Water*; Docket No. R-2016-2554150 (Order Entered March 28, 2017). *See generally* Disposition of Cost Rate Models, pp. 96-97; *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Cost of Common Equity, p. 119; *Pa. PUC v. Wellsboro Electric Company;* Docket No. R-2019-3008208 (Order Entered April 29, 2020). *See generally* Disposition of Primary Methodology to Determine ROE, pp. 80-81; *Pa. PUC v. Citizens Electric Company of Lewisburg, PA;* Docket No. R-2019-3008212 (Order Entered April 29, 2020). *See generally* Disposition of Cost of Common Equity, pp. 91-92. *Pa. PUC v. Columbia Gas of Pennsylvania, Inc.;* Docket No. R-2020-3018835 (Order Entered February 19, 2021). *See generally* Disposition of Cost of Common Equity, p. 131.

[2] David C. Parcell, "The Cost of Capital – A Practitioner's Guide," 2010 Edition, p. 151.

also strengths of the DCF, as this recognizes the time value of money and is forward-looking. Third, the use of the utilities' own, or in this case, the proxy group's stock prices and growth rates directly in the calculation also causes the DCF to be industry and company specific. Finally, the DCF, through the use of a spot stock price when determining the dividend yield and analysts who generate forecasted earnings growth rates, almost certainly takes current inflationary trends into consideration, therefore, it contains the most up-to-date projected information of any model. Therefore, the DCF method is the superior method for determining the rate of return for the current economic market because it measures the cost of equity directly.

Q. PLEASE EXPLAIN WHY YOU CHOSE TO USE THE CAPM AS A COMPARISON IN YOUR ANALYSIS.

A. I have included a CAPM analysis only as a comparison and not as a recommendation because while both the CAPM and the DCF include inputs that allow the results to be specific to the utility industry, the CAPM is far less responsive to changes in the industry than the DCF. The CAPM is based on the performance of U.S. Treasury bonds and the performance of the market as measured through the S&P 500 and is company-specific only through the use of beta. Beta reflects a stock's volatility relative to the overall market, thereby incorporating an industry-specific aspect to the CAPM, but only as a measure of how reactive the industry is compared to the market as a whole. Although changes in the utility industry are more likely to be accurately reflected in the DCF, which uses the companies' actual prices, dividends, and growth rates, I have included the results of my CAPM analysis because changes in the market, whether as a whole or specific to the utility industry, affect the outcome of each method in different ways. Although I have provided the results of CAPM as a comparison and not as a check, it does have several disadvantages and should not be given comparable weight to the DCF method.

Q. EXPLAIN THE DISADVANTAGES OF THE CAPM.

A. The CAPM, and the RP method by virtue of its similarities to the CAPM, give results that indicate to an investor what the equity cost rate should be if current economic and regulatory conditions are the same as those present during the historical period in which the risk premiums were determined. This is because beta, which is the only company-specific variable in the CAPM model, measures the *historical* volatility of a stock compared to the *historical* overall market return. Reliance on historical values is especially problematic now given the recent impact of the coronavirus on economic conditions. Although the CAPM and RP results can be useful to investors in making rational buy and sell decisions within their portfolios, the DCF method is the superior method for determining the rate of return for the current economic market and measuring the cost of equity directly. The CAPM and the RP methods are less reliable indicators because they measure the cost of equity indirectly and risk premiums vary depending on the debt and equity being compared. Also, regulators can never be certain that economic and regulatory conditions underlying the historical period during which the risk premiums were calculated are the same today or will be the same in the future.

Q. IS THERE ANY ACADEMIC EVIDENCE THAT QUESTIONS THE CREDIBILITY OF THE CAPM MODEL?

A. Yes. An article, "Market Place; A Study Shakes Confidence in the Volatile-Stock Theory," which appeared in the *New York Times* on February 18, 1992, summarized a CAPM study conducted by professors Eugene F. Fama and Kenneth R. French.[3] Their study examined the importance of beta, CAPM's risk factor, in explaining returns on common stock. In CAPM theory a stock with a higher beta should have a higher expected return. However, they found that the model did not do well in predicting actual returns and suggested the use of more elaborate multi-factor models.

A more recent article, "The Capital Asset Pricing Model: Theory and Evidence," which appeared in the *Journal of Economic Perspectives,* states that "the attraction of the CAPM is that it offers powerful and intuitively pleasing predictions about how to measure risk and the relation between expected return and risk. Unfortunately, the empirical record of the model is poor - poor enough

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[3] Berg, Eric N. "Market Place; A Study Shakes Confidence in the Volatile-Stock Theory" *The New York Times*, 18 Feb 1992: *nytimes.com* Web. 23 Mar 2016.

to invalidate the way it is used in applications."[4] As a result, I conclude that the CAPM's relevance to the investment decision making process does not carry over into the regulatory rate setting process.

Q. PLEASE EXPLAIN WHY YOU HAVE CHOSEN TO EXCLUDE THE RP METHOD FROM YOUR ANALYSIS.

A. The RP method is excluded because it is a simplified version of the CAPM and is subject to the same faults listed above. Additionally, unlike the CAPM, the RP method does not recognize company-specific risk through beta.

Q. EXPLAIN WHY YOU HAVE CHOSEN TO EXCLUDE THE CE METHOD IN YOUR ANALYSIS.

A. The CE method is excluded because the choice of which companies are comparable is highly subjective, and it is debatable whether historic accounting values are representative of the future. Moreover, its historical usage in this regulatory forum has been minimal.

Q. ARE THERE ANY RECENT COMMISSION ORDERS THAT DEVIATE FROM THE USE OF THE DCF AS THE PRIMARY METHOD IN DETERMINING A COMPANY'S RETURN ON EQUITY?

A. Yes. The Commission indicated in the most recent Aqua Pennsylvania, Inc.

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[4] Fama, Eugene F. and French, Kenneth R., "The Capital Asset Pricing Model: Theory and Evidence." *Journal of Economic Perspectives* (2004): Volume 18, Number 3, pp. 25-46.

(Aqua) base rate case order that its method "for determining Aqua's ROE shall utilize both I&E's DCF and CAPM methodologies"[5] and that "I&E's DCF and CAPM produce a range of reasonableness for the ROE…"[6] , which deviates from prior Commission practice of primarily relying on the DCF.

Q. SHOULD THE COMMISSION'S USE OF THE CAPM AS A CEILING FOR A "RANGE OF REASONABLENESS" APPLY IN THIS PROCEEDING?

A. No. In a report issued by Regulatory Research Associates, a group within S&P Global Market Intelligence,[7] Aqua's return on equity of 10.00% is stated as being above the national average for water utility base rate cases and above the Distribution System Improvement Charge (DSIC) authorized by the Commission of 9.80%[8] for water and wastewater utilities based on a period ended September 30, 2021, and this DSIC rate is still in effect as the Commission has not published DSIC rates since this report was made public in January 2022. The above referenced report also states that the average return on equity for water utility base rate cases that have been completed during the first four months of

5 *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 154 (Order entered May 16, 2022).

6 *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order entered May 16, 2022).

7 Regulatory Research Associates, "Commission authorizes management performance bonus for Aqua Pennsylvania," *S&P Global Market Intelligence*, May 16, 2022.

8 PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended September 30, 2021, approved at Public Meeting on January 13, 2022 at Docket No. M-2021-3030045.

2022 was 9.63% and for the last twelve months ended April 30, 2022 was 9.53% which are well below the 10.00% return on equity authorized by the Commission for Aqua. Although this is related to the water utility industry, it demonstrates the problem associated with using the CAPM as a ceiling for determining a utility's return on equity.

Additionally, as I explained above, the CAPM should not be used as a primary method and it should only be used as a comparison and not as a check of the DCF due to the concerns I stated above. Also, as demonstrated below, the use of the CAPM in this proceeding would result in a significant burden to ratepayers during a time of increasing levels of inflation and economic decline. Therefore, I disagree with providing the CAPM comparable weight to the DCF method.

SUMMARY OF THE COMPANY'S RESULTS

Q. WHAT ARE THE RESULTS OF THE COMPANY'S COST OF EQUITY ANALYSES?

A. Mr. Moul used the DCF, CAPM, RP, and CE methods in analyzing the Company's cost of equity. He made several adjustments to his results, which include consideration for size, various claimed risk factors, leverage, and management performance. Ultimately, Mr. Moul opined that a cost of equity of 11.20% is warranted (Columbia Statement No. 8, p. 6, line 5 through p. 7, line 8 and Columbia Exhibit No. 400, Schedule 1, p. 2).

I&E RECOMMENDATION

Q. WHAT IS YOUR RECOMMENDED COST OF COMMON EQUITY FOR COLUMBIA?

A. Based upon my analysis, I recommend a cost of common equity of 9.61% (I&E Exhibit No. 2, Schedule 1).

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on the use of the DCF method. As explained above, I used my CAPM result only to present to the Commission a comparison and not as a check to my DCF results. My DCF analysis uses a spot dividend yield, a 52-week dividend yield, and earnings growth forecasts.

DISCOUNTED CASH FLOW

Q. PLEASE EXPLAIN YOUR DCF ANALYSIS.

A. My analysis employs the constant growth DCF model as portrayed in the following formula:

$$K = D_1/P_0 + g$$

Where:

K	=	Cost of equity
D_1	=	Dividend expected during the year
P_0	=	Current price of the stock
g	=	Expected growth rate

When a forecast of D_1 is not available, D_0 (the current dividend) must be adjusted by one half of the expected growth rate to account for changes in the dividend paid in period one. As forecasts for each company in my proxy group were available from Value Line, no dividends were adjusted for the purpose of my analysis.

Q. PLEASE EXPLAIN HOW YOU DEVELOPED THE DIVIDEND YIELDS USED IN YOUR DCF ANALYSIS.

A. A representative dividend yield must be calculated over a time frame that avoids the problems of both short-term anomalies and stale data series. For my DCF analysis, the dividend yield calculation places equal emphasis on the most recent spot and the 52-week average dividend yields. The following table summarizes my dividend yield computations for the proxy group (I&E Exhibit No. 2, Schedule 6):

Six-Company Proxy Group	Dividend Yield
Spot	2.91%
52-week average	3.23%
Average	3.07%

Q. WHAT INFORMATION DID YOU RELY UPON TO DETERMINE YOUR EXPECTED GROWTH RATE?

A. I have used five-year projected growth rate estimates from Value Line, Yahoo! Finance, Zacks, and Morningstar.

Q. WHAT WERE THE RESULTS OF YOUR FORECASTED EARNINGS GROWTH RATES?

A. The expected average growth rates for the six-company proxy group ranged from 2.90% to 10.50% with an overall average of 6.54% (I&E Exhibit No. 2, Schedule 7).

Q. WHAT IS THE RESULT OF YOUR DCF ANALYSIS BASED ON YOUR RECOMMENDED DIVIDEND YIELD AND GROWTH RATE?

A. The results of my DCF analysis are calculated as follows (I&E Exhibit No. 2, Schedule 8):

$$K = D_1/P_0 + g$$

$$9.61\% = 3.07\% + 6.54\%$$

Q. DOES THE DCF ADEQUATELY FACTOR IN RECENT INFLATIONARY TRENDS?

A. Yes. My DCF calculation includes a spot stock price when determining the dividend yield and analysts who generate forecasted earnings growth rates almost certainly take inflation into consideration as well, therefore, it contains the most up-to-date projected information of any model. Therefore, any potential concerns that the Commission should consider the overall economic climate and related inflation when deciding the merits of the Company's requested base rate increase are adequately covered by use of the DCF as a primary model for determining an appropriate return on equity.

CAPITAL ASSET PRICING MODEL

Q. PLEASE EXPLAIN YOUR CAPM ANALYSIS.

A. My analysis employs the traditional CAPM as portrayed in the following formula:

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

Where:

K	=	Cost of equity
R_f	=	Risk-free rate of return
R_m	=	Expected rate of return on the overall stock market
β	=	Beta measures the systematic risk of an asset

Q. WHAT IS BETA AS EMPLOYED IN YOUR CAPM ANALYSIS?

A. Beta is a measure of the systematic risk of a stock in relation to the rest of the stock market. A stock's beta is estimated by calculating the linear regression of a stock's return against the return on the overall stock market. The beta of a stock with a price pattern identical to that of the overall stock market will equal one. A stock with a price movement that is greater than the overall stock market will have a beta that is greater than one and would be described as having more investment risk than the market. Conversely, a stock with a price movement that is less than the overall stock market will have a beta of less than one and would be described as having less investment risk than the market.

Q. HOW DID YOU DETERMINE BETA FOR YOUR CAPM ANALYSIS?

A. In estimating an equity cost rate for my proxy group of six gas companies, I used the average of the betas for the companies as provided in the Value Line Investment Survey. The average beta for my proxy group is 0.82 (I&E Exhibit No. 2, Schedule 9).

Q. WHAT RISK-FREE RATE OF RETURN HAVE YOU USED FOR YOUR FORECASTED CAPM ANALYSIS?

A. I used the risk-free rate of return (R_f) from the projected yield on 10-year Treasury Notes. While the yield on the short-term T-Bill is a more theoretically correct parameter to represent a risk-free rate of return, it can be extremely volatile. The volatility of short-term T-Bills is directly influenced by Federal Reserve policy. At the other extreme, the 30-year Treasury Bond exhibits more stability but is not risk-free. Long-term Treasury Bonds have substantial maturity risk associated with market risk and the risk of unexpected inflation. Long-term treasuries normally offer higher yields to compensate investors for these risks. As a result, I used the yield on the 10-year Treasury Note because it mitigates the shortcomings of the other two alternatives. Additionally, the Commission has recently recognized the 10-year Treasury Note as the superior measure of the risk-free rate of return.[9]

The forecasted yield on the 10-year Treasury Note, as can be seen in Blue Chip Financial Forecasts, is expected to be between 2.60% and 3.10% from the third quarter of 2022 through the third quarter of 2023, and it is forecasted to be 2.90% from 2023-2027. For my forecasted CAPM analysis, I used 2.88%, which is the average of all the yield forecasts I observed (I&E Exhibit No. 2, Schedule 10).

Q. HOW DID YOU DETERMINE THE RETURN ON THE OVERALL STOCK MARKET IN YOUR FORECASTED CAPM ANALYSIS?

A. To arrive at a representative expected return on the overall stock market, I observed Value Line's 1700 stocks and the S&P 500. Value Line expects its universe of 1700 stocks to have an average yearly return of 12.57% over the next three to five years based on a forecasted dividend yield of 1.90% and a yearly index appreciation of 50%. The S&P 500 index is expected to have an average yearly return of 15.78% over the next five years based upon Barron's forecasted dividend yield of 1.38% and Morningstar's average expected increase in the S&P 500 index of 14.30% (I&E Exhibit No. 2, Schedule 11).

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[9] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Capital Asset Pricing Model (CAPM), p. 99.

Q. WHAT IS THE EXPECTED RETURN ON THE OVERALL STOCK MARKET BASED ON YOUR FORECASTED ANALYSIS?

A. The expected return on the overall market is 14.17% for my forecasted analysis (I&E Exhibit No. 2, Schedule 11).

Q. WHAT IS THE COST OF EQUITY RESULT FROM YOUR CAPM ANALYSIS?

A. The result of my analysis is as follows (I&E Exhibit No. 2, Schedule 12):

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

$$12.14\% = 2.88\% + 0.82\,(14.17\% - 2.88\%)$$

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS REGARDING YOUR CAPM ANALYSIS?

A. Yes. As discussed earlier in my testimony, my recommended cost of equity is primarily based upon my DCF analysis. I only present a CAPM analysis to the Commission as a comparison and not for recommendation purposes as the inputs are highly subjective, and other than beta, not company or industry specific. Again, it has traditionally been the preference of the Commission to view both the DCF and CAPM analysis in base rate proceedings.

Q. IS IT NECESSARY OR APPROPRIATE TO APPLY THE CAPM WITH SIMILAR WEIGHT TO THE DCF WHEN DETERMINING A SPECIFIC RETURN ON EQUITY DUE TO RECENT INFLATIONARY TRENDS?

A. No. My use of the DCF as a primary method in determining an appropriate return on equity sufficiently takes this into consideration. As mentioned above, the DCF includes a spot stock price in the dividend yield calculation and analysts who generate forecasted earnings growth almost certainly take inflation into consideration as well, so it contains the most up-to-date projected information of any model. In other words, the inputs of the DCF capture all known economic factors, including inflation.

Q. BASED ON THE COMPANY'S FILED RATE BASE AND CLAIMED CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 253 BASIS POINTS TO THE COST OF EQUITY BASED ON THE DIFFERENCE IN RESULTS BETWEEN YOUR CAPM ANALYSIS (12.14%) AND YOUR DCF ANALYSIS (9.61%)?

A. The example below illustrates the impact of 253 additional basis points to the Company's cost of equity if the results of my CAPM analysis were applied to the Company's filed rate base used rather than my DCF results:

Columbia Gas of Pennsylvania, Inc.	
Claimed Equity Percentage of Capital Structure	54.38%
Difference in Rate on Equity between I&E CAPM and DCF Analysis (12.14% - 9.61% = 2.53%)	2.53%
Additional Basis Points to Calculated Cost of Equity	253
Claimed Rate Base*	$2,958,295,013
Impact Prior to Gross Revenue Conversion Factor (0.5438 x 0.0253 x $2,958,295,013)	**$40,700,637**
Gross Revenue Conversation Factor**	1.42417301
Total Impact (1.42417301 x $57,964,749)	**$57,964,749**

*(Columbia Exhibit 102, Schedule 3, p. 3)
** (Columbia Exhibit No. 102, Schedule 3, p. 5)

In this example, an addition of 253 basis points to the cost of equity would burden ratepayers to fund an additional amount of $57,964,749. In short, I believe it is inappropriate to use the CAPM as the top end of a range in determining a return on equity and any amount granted above the DCF (9.61% based on my recommendation) places an inappropriate burden on ratepayers, particularly given Columbia's projected frequency for future base rate cases and the increased funding for pipeline replacement as discussed in more detail by I&E witness Dusyant Patel (I&E Statement No. 1).

CRITIQUE OF MR. MOUL'S PROPOSED COST OF EQUITY

Q. DO YOU AGREE WITH MR. MOUL'S PROPOSED COST OF EQUITY?

A. No. I disagree with Mr. Moul's proposed cost of equity analysis for several reasons. First, I disagree with the weights given to the results of Mr. Moul's CAPM, RP, and CE analyses in his recommendation. Second, I disagree with certain aspects of Mr. Moul's discussion of Columbia's risk. Third, I disagree with his application of the DCF including the forecasted growth rate and leverage adjustment he uses. Finally, I disagree with his inclusion of a size adjustment, his reliance on the 30-year Treasury Bond for his risk-free rate, and the use of a double-adjusted beta in his CAPM analysis. Finally, Mr. Moul's request for an additional 25 basis points for "strong management performance" is unjustified.

WEIGHTS GIVEN TO THE CAPM, RP, AND CE METHODS

Q. DO YOU AGREE WITH MR. MOUL'S RELIANCE ON THE CAPM AND RP MODELS?

A. No. While I am not opposed to providing the Commission the results of the CAPM for a point of comparison to the results of the DCF calculation, I am opposed to giving the CAPM and RP considerable weight. For the reasons discussed above, it is not appropriate to give the CAPM and RP models similar weight to the DCF as Mr. Moul has done in creating his recommended cost of equity range (Columbia Statement No. 8, p. 6, line 10). As discussed above, the

CAPM measures the cost of equity indirectly and can be manipulated by the time period chosen. Since the RP is a simplified version of the CAPM, it suffers these same flaws.

Q. DO YOU AGREE WITH MR. MOUL'S USE OF THE CE METHOD?

A. No. The companies in Mr. Moul's analysis are not utilities, and, therefore, they are too dissimilar to be used in a CE analysis. The companies in Mr. Moul's CE proxy group are simply not comparable to gas utilities in terms of their business risk or financial risk profile. Natural gas distribution companies are monopolies, which are subject to very little competition, if any. Due to this minimal competition, utilities in general have very low business risk and are able to maintain higher financial risk profiles by employing more leverage. Conversely, since the companies in Mr. Moul's CE proxy group operate in an unregulated competitive environment with a higher level of business risk, they must maintain lower financial risk profiles by employing a smaller amount of leverage. Furthermore, in his CE analysis, Mr. Moul stated, "I used 20% as the point where those returns could be viewed as highly profitable and should be excluded from the Comparable Earnings approach" (Columbia Statement No. 8, p. 44, lines 5-7). It is my opinion the arbitrary use of 20% is unjustified as I am unaware of any gas utility company that has been awarded or regularly earns a 20% return.

RISK ANALYSIS

Q. SUMMARIZE MR. MOUL'S CLAIMS REGARDING RISK FACTORS THE COMPANY FACES.

A. Mr. Moul described the Company's claimed risk factors in two different sub-sections. In the first section, labeled "Natural Gas Risk Factors," he described the *qualitative* risk factors. In this section, Mr. Moul discussed the potential for bypass, the Company's construction program, the potential discontinuation of the Company's weather normalization adjustment (WNA) tariff design and/or the refusal of its revenue normalization adjustment (RNA) proposal (Columbia Statement No. 8, p. 7, line 9 through p. 12, line 2). In the second section of his risk analysis, labeled "Fundamental Risk Analysis," he described the *quantitative* risk factors. In this section, Mr. Moul discussed the Company's credit quality, as well as many different financial metrics including size, market ratios, common equity ratio, return on book equity, operating ratios, pre-tax interest coverage, quality of earnings, internally generated funds, and betas (Columbia Statement No. 8, p. 12, line 3 through p. 17, line 16).

Q. WHAT HAS MR. MOUL CLAIMED REGARDING THE POTENTIAL RISK OF BYPASS?

A. Mr. Moul opined that the Company faces a unique situation in Western Pennsylvania where gas utilities have overlapping territories; this creates "gas on gas" competition. He stated that one customer left the Company's system in the

Spring of 2019 and switched to another local distribution company (LDC) that overlaps the Company's service territory. He claimed that the six interstate pipelines traversing the Company's service territory create the potential for bypass among certain large volume customers. Additionally, Mr. Moul claimed that local gas production provides another bypass threat, as well as the consolidation of competing LDCs which form a strong competitor (Columbia Statement No. 8, p. 7, line 22 through p. 8, line 11).

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S CLAIMED RISK OF BYPASS FOR COLUMBIA?

A. The Western Pennsylvania market is unique in that the overlapping territories create "gas on gas" competition; however, whatever competition exists is limited to a very small number of competitors and only in overlapping territories. Mr. Moul did not provide the number of potential customers affected, nor did he quantify the impact of the one customer that left the Company's system or reveal the size of Columbia's territory that is overlapped by NGDC competitors. Just for a point of context, Columbia witness Kevin L. Johnson identified a total of 445,908 Columbia Gas customers in developing his customer count allocation factor (Columbia Statement No. 6, Exhibit KLJ-2, p. 5). Losing only one customer in 2019 to "gas on gas" competition does not seem to support Mr. Moul's contention that this is a substantive risk factor for the Company. Additionally, to the degree that customers must absorb switching costs to move from one NGDC to another, competition will be discouraged. Because insufficient information has been provided, the risk of bypass in overlapping territories cannot be substantiated. Beyond the claimed risk of bypass resulting from overlapping territories of competitors, Columbia faces no more risk than any of the companies in the proxy group. The cost of equity measured by the proxy group adequately compensates investors for the risk of bypass.

Q. WHAT CLAIM HAS MR. MOUL MADE REGARDING THE COMPANY'S RISK OF EXPOSURE IN REPLACING AGING INFRASTRUCTURE?

A. Mr. Moul claimed that the Company incurs additional risk because required capital expenditures to replace aging infrastructure do not increase the Company's customer base (Columbia Statement No. 8, p. 10, lines 21-23). The Company anticipates total capital expenditures over the next five years will equal 77% of the net utility plant in service as of December 31, 2021 (Columbia Statement No. 8, p. 11, lines 5-7).

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S CLAIM REGARDING THE COMPANY'S RISK CAUSED BY THE REPLACEMENT OF AGING INFRASTRUCTURE?

A. Every gas utility faces the same issues of upgrading or replacing its infrastructure. As costs for replacing infrastructure increase, Columbia, like any other regulated gas utility, has the option to file a base rate case at any time to address revenue inadequacy due to increasing costs, infrastructure replacement, or any other associated issues. Base rate cases allow a utility to recover its costs and provide it with the *opportunity* to earn a reasonable return on capital investments. Additionally, as Mr. Moul states in his testimony, the Commission offers risk reducing mechanisms such as the DSIC and the FPFTY to help reduce any regulatory lag in recovery of infrastructure investment or other unforeseen expenditures (Columbia Statement No. 8, p. 9, lines 10-19). It should be noted that these mechanisms were not designed to eliminate the need for periodic base rate case filings.

Q. WHAT RISK HAS MR. MOUL CLAIMED WITH RESPECT TO THE POTENTIAL DISCONTINUATION OF THE WEATHER NORMALIZATION ADJUSTMENT MECHANISM AND REFUSAL OF THE REVENUE NORMALIZATION ADJUSTMENT?

A. Mr. Moul stated that, "All of my Gas Group companies have some form of WNA mechanism, and in some cases, other forms of revenue decoupling. Therefore, the market prices of all companies in my Gas Group reflect the expectations of investors that these companies' revenues are stabilized to some extent by a normalization mechanism" (Columbia Statement No. 8, p. 9, lines 1-4). Mr. Moul further stated, "If the Company is unable to obtain the RNA mechanism, its risk will increase above that of the Gas Group that serves as a basis to measure the Company's cost of equity..." (Columbia Statement No. 8, p. 9, lines 6-9).

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S CLAIM REGARDING THE COMPANY'S INCREASED RISK AS A RESULT OF DISCONTINUING THE WNA MECHANISM?

A. The Commission allows utilities the opportunity to propose alternative ratemaking mechanisms, and Columbia has requested continuation of its WNA, albeit with modification, and proposed an RNA in this proceeding. I am not aware of any reason the WNA mechanism cannot be renewed. The Company currently does not have an RNA mechanism in place; therefore, its refusal will not increase risk to the Company. However, if the Commission approves the Company's RNA proposal, its overall risk will decrease as a result. I&E's position on Columbia's specific requests regarding the WNA and RNA proposals are addressed in the testimony of I&E witness Cline in I&E Statement No. 3. Further, Mr. Moul has not produced evidence demonstrating that the Gas Group companies employ either the WNA mechanism that is already authorized for Columbia, or the RNA mechanism that Columbia has proposed.

Q. WHAT HAS MR. MOUL CLAIMED REGARDING QUANTITATIVE RISK FACTORS IN THE SECTION LABELED "FUNDAMENTAL RISK ANALYSIS?"

A. Mr. Moul stated that it is necessary to establish a company's relative risk position within its industry through an analysis of quantitative and qualitative factors. Mr.

Moul used various financial metrics to compare Columbia to the S&P Public Utilities Index and his Gas Group (Columbia Statement No. 8, p. 12, lines 4-13).

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S "FUNDAMENTAL RISK ANALYSIS?"

A. Two of the points he discussed, size risk and betas, have been discussed and disputed elsewhere in my direct testimony. Throughout the remainder of his "fundamental risk analysis," Mr. Moul made several statements to indicate that the Company has no more of a risk than any other company in his Gas Group. First, regarding operating ratios, Mr. Moul stated, "The five-year average operating ratios were 73.7% for the Company, 83.6% for the Gas Group, and 78.8% for the S&P Public Utilities. The Company's operating ratios were lower than the Gas Group, thereby indicating lower risk." (Columbia Statement No. 8, p. 15, lines 16-18). Second, concerning coverage, he stated, "Excluding Allowance for Funds Used During Construction ("AFUDC"), the five-year average pre-tax interest coverage was 4.20 times for the Company, 4.05 times for the Gas Group, and 3.02 times for the S&P Public Utilities. The interest coverages were fairly similar for the Company and the Gas Group, thereby indicating similar risk" (Columbia Statement No. 8, p. 15, line 23 through p. 16, line 4). Third, concerning internally generated funds, he stated, "Historically, the five-year average percentage of IGF to capital expenditures was 61.1% for the Company, 56.0% for the Gas Group and 69.5% for the S&P Utilities. Had the Company paid dividends in recent years, its

IGF would have been weaker. The Company's average IGF to construction percentage has been slightly stronger than the Gas Group, which can be traced to the lack of dividend payments by the Company" (Columbia Statement No. 8, p. 16, lines 14-19). Finally, concerning betas, he stated, "A comparison of market risk is shown by the Value Line beta of 0.88 as the average for the Gas Group and 0.91 as the average for the S&P Public Utilities. The systematic risk for the Gas Group as measured by the Value Line beta is fairly similar to the S&P Public Utilities" (Columbia Statement No. 8, p. 17, lines 5-9).

While some measures Mr. Moul discussed may imply a higher risk profile for the Company, he provided other more convincing measures that illustrate the Company has lower risk. Overall, through his own analysis and testimony, Mr. Moul substantiated that the Company has very similar risk as compared to that of his Gas Group.

COST OF EQUITY ADJUSTMENTS

INFLATED GROWTH RATES USED IN DCF ANALYSIS

Q. WHAT GROWTH RATE HAS MR. MOUL USED IN HIS DCF ANALYSIS?

A. Mr. Moul used a growth rate of 6.75% (Columbia Statement No. 8, p. 32, line 22).

Q. WHAT IS THE BASIS FOR MR. MOUL'S GROWTH RATE?

A. Mr. Moul stated, "Schedule 9 shows the prospective five-year earnings per share growth rates projected for the Gas Group by IBES/First Call (5.17%), Zacks (5.94%), and Value Line (7.61%)." (Columbia Statement No. 8, p. 27, lines 6-7). The average of the growth rates from Mr. Moul's sources resulted in an average growth rate of 6.24% ((5.17% + 5.94% + 7.61%) ÷ 3); however, Mr. Moul used a growth rate of 6.75% in his DCF analysis. Mr. Moul stated that growth rates should not be established by a mathematical formulation and his growth rate is reasonable as it is supported by continued infrastructure spending (Columbia Statement No. 8, p. 28, lines 1-8).

Q. DO YOU AGREE WITH MR. MOUL'S GROWTH RATE ANALYSIS?

A. No. I disagree with Mr. Moul's belief that DCF growth rates *should not* be established by mathematical formulation, I believe that any alternative is subjective and introduces additional and unnecessary bias and should be avoided whenever possible. The use of a higher growth rate than the average of his proxy group ignores the fact that analysts making earnings per share growth forecasts are already aware of the economic conditions and the state of the gas utility industry. The reasons Mr. Moul has given for choosing a growth rate above his calculated average are factors that are already included in the earnings per share growth forecasts. Therefore, choosing a growth rate higher than the average of his proxy group would account for the same factors twice.

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS REGARDING THE RESULTS OF MR. MOUL'S PROJECTED GROWTH RATES?

A. Yes. While the five-year projected growth rates can be used in analyses, one must be aware that analysts' estimates may be biased. This bias has been observed in literature. An article written by Professors Ciciretti, Dwyer, and Hasan in 2009 observed strong support of earnings forecasts being higher than actual earnings.[10] In spring of 2010, McKinsey on Finance presented an article reporting that after a decade of stricter regulation analysts' forecasts are still overly optimistic.[11]

Analysts' estimates are an attempt to forecast future cash flows and thus expected earnings growth. However, it should be kept in mind that prudent judgment must be exercised as to the sustainability of forecasted growth rates with respect to the base earnings. If the base year earnings are abnormally high, the growth rates from which they are calculated will be biased downward. Similarly, if the base year earnings are abnormally low, the growth rates from which they are calculated will be biased upward. As a result, it is typically necessary to employ a methodology to smooth out the abnormally high or low base year earnings.

In summary, since analysts' projected growth forecasts are most often overly optimistic, there is no need to arbitrarily and non-formulaically increase the estimates used in a DCF analysis.

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10 Ciciretti, Rocco; Dwyer, Gerald R; and Iftekhan Hasan. "Investment Analysts' Forecasts of Earnings" Federal Reserve Bank of St. Louis *Review*, September/October 2009, 91 (5, part 2) pp. 545-67.

11 Goedhart, Marc J; Raj, Rishi; and Abhishek Saxena. "Equity analyst: Still too bullish" McKinsey On Finance Number 35 Spring 2010, pp. 14-17.

LEVERAGE ADJUSTMENT APPLIED TO DCF ANALYSIS

Q. HAS MR. MOUL MADE ANY ADDITIONAL ADJUSTMENTS TO THE RESULT OF HIS DCF ANALYSIS?

A. Yes. Mr. Moul proposed a 99-basis point "leverage" adjustment to the results of his DCF analysis to account for applying a market-determined cost of equity to a book value capital structure (Columbia Statement No. 8, p. 32, lines 9-12).

Q. WHAT IS FINANCIAL LEVERAGE?

A. Financial leverage is the use of debt capital to supplement equity capital. A firm with significantly more debt than equity is considered to be highly leveraged.

Q. WHAT IS A MARKET-TO-BOOK (M/B) RATIO?

A. A market-to-book ratio is used to evaluate a public firm's equity value by comparing the market value and book value of a company's equity. One way of doing this is to divide the current price per share of stock by the book value per share. A M/B result of above one (1) is desired.

Q. HAS MR. MOUL PROPOSED TO ADJUST THE RESULT OF HIS DCF ANALYSIS TO RECOGNIZE HOW THE COMPANY IS LEVERAGED?

A. No. Mr. Moul has not proposed to change the capital structure of the utility (a leverage adjustment), nor has he proposed to apply the market-to-book ratio to the DCF model (a market-to-book adjustment). Instead, Mr. Moul has proposed to make an adjustment to account for applying the market value cost rate of equity to the book value of the utility's equity. I am not aware of any term in academic journals, textbooks, or other literature that describes this type of adjustment.

Q. WHAT IS THE BASIS FOR MR. MOUL'S PROPOSED LEVERAGE ADJUSTMENT?

A. Mr. Moul stated that in order to make the DCF results relevant to a book value capital structure, the market-derived cost of equity needs to be adjusted to take into consideration the difference in financial risk (Columbia Statement No. 8, p. 29, lines 1-4). Mr. Moul opined this is because market valuations of equity are based on market value capital structures, which in general have more equity, less debt, and, therefore, less risk than book value capital structures (Columbia Statement No. 8, p. 28, lines 17-23).

Q. HOW HAS MR. MOUL ATTEMPTED TO JUSTIFY THE LEVERAGE ADJUSTMENT USED IN HIS ANALYSIS?

A. Mr. Moul simply states:

> I know of no means to mathematically solve for the 0.99% leverage adjustment by expressing it in the terms of any particular relationship of market price to book value. The 0.99% adjustment is merely a convenient way to compare the 11.42% return computed using the Modigliani & Miller formulas to the 10.43% return generated by the DCF model based on a market value capital structure.[12]

[12] Columbia Statement No. 8, p. 32, lines 2-7.

Q. BASED ON THE COMPANY'S FILED RATE BASE AND CLAIMED CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 99 BASIS POINTS TO THE COST OF EQUITY?

A. The example below illustrates the impact of 99 additional basis points to the Company's cost of equity:

Columbia Gas of Pennsylvania, Inc.	
Claimed Equity Percentage of Capital Structure	54.38%
Additional Basis Points to Calculated Cost of Equity	99
Claimed Rate Base*	$2,958,295,013
Impact Prior to Gross Revenue Conversion Factor (0.5438 x 0.0099 x $2,958,295,013)	**$15,926,336**
Gross Revenue Conversation Factor**	1.42417301
Total Impact (1.42417301 x $15,926,336)	**$22,681,858**

*(Columbia Exhibit 102, Schedule 3, p. 3)
** (Columbia Exhibit No. 102, Schedule 3, p. 5)

In this example, an addition of 99 basis points to the cost of equity would force ratepayers to fund an unwarranted additional amount of $22,681,858.

Q. DO YOU AGREE WITH MR. MOUL'S "LEVERAGE ADJUSTMENT" JUSTIFICATION?

A. No. Mr. Moul's adjustment is inappropriate for a couple of reasons, including the characterization of financial risk and Commission precedent.

Q. EXPLAIN HOW RATING AGENCIES ASSESS FINANCIAL RISK.

A. Rating agencies assess financial risk based upon a company's booked debt obligations and the ability of its cash flow to cover the interest payments on those obligations. The agencies' use a company's financial statements for their analysis, not market capital structure. The income statement reflects the financial risk of a company because it represents the performance of the company over a certain period of time. A change in the market value of the stock is not reflected in the income statement nor is a change in market value capital structure reflected in the book value capital structure unless treasury stock is purchased. It is a company's financial statements that affect the market value of the stock, and, therefore, the financial statements and the book value capital structure that is relied upon in an analysis such as that done by rating agencies.

Q. HAS THE COMMISSION REJECTED THE USE OF A LEVERAGE ADJUSTMENT?

A. Yes. The following five cases are the most recent instances where the Commission has rejected the use of a "leverage adjustment."

First, in *Pennsylvania Public Utility Commission v. Aqua Pennsylvania, Inc.*, at Docket No. R-00072711 (Order Entered July 31, 2008), p. 38, the Commission rejected the ALJ's recommendation for a leverage adjustment stating, "[t]he fact that we have granted leverage adjustments in the past does not mean that such adjustments are indicated in all cases."

Second, in *Pennsylvania Public Utility Commission, et al v. City of Lancaster – Bureau of Water*, at Docket No. R-2010-2179103 (Order Entered July 14, 2011), p. 79, the Commission agreed with the I&E position and stated, "any adjustment to the results of the market based DCF are unnecessary and will harm ratepayers. Consistent with our determination in *Aqua 2008* there is no need to add a leverage adjustment."

Third, in *Pennsylvania Public Utility Commission, et al v. UGI Utilities, Inc. – Electric Division*, at Docket No. R-2017-2640058 (Order Entered October 25, 2018), pp. 93-94, the Commission agreed with the I&E position and stated, "we conclude that an artificial adjustment in this proceeding is unnecessary and contrary to the public interest. Accordingly, we decline to include a leverage adjustment in our calculation of the DCF cost of equity."

Fourth, in *Pennsylvania Public Utility Commission, et. al v. Columbia Gas of Pennsylvania, Inc.*, at Docket R-2020-3018835 (Order Entered February 19, 2021), pp. 137-141, the Commission adopted the ALJ's recommendation to use I&E's DCF methodology, which excludes the use of a leverage adjustment.

Fifth, in *Pennsylvania Public Utility Commission, et. al v. PECO Energy Company – Gas Division*, at Docket R-2020-3018929 (Order Entered June 22, 2021, Public Version), pp. 172-173, the Commission adopted the ALJ's recommendation to use I&E's DCF methodology, which excluded PECO's application of a leverage adjustment.

Finally, in the most recent case of *Pennsylvania Public Utility Commission, et. al v. Aqua Pennsylvania, Inc.*, at Docket R-2021-3027385 (Order Entered June 22, 2021), pp. 154-155, the Commission adopted the ALJ's recommendation to use I&E's DCF methodology, which excluded Aqua's application of a leverage adjustment.

Q. SUMMARIZE YOUR RECOMMENDATION REGARDING THE PROPOSED LEVERAGE ADJUSTMENT.

A. I recommend that Mr. Moul's proposed 99-basis point leverage adjustment be rejected because true financial risk is a function of the amount of interest expense, and capital structure information provided to investors through Value Line is that of book values, not market values. This demonstrates that investors base their decisions on book value debt and equity ratios for the regulated utilities, and therefore, no adjustment is needed. Mr. Moul's proposed adjustments serve only to manipulate the DCF's market-based methodology.

Q. DO YOU HAVE ANY FURTHER COMMENTS REGARDING MR. MOUL'S DCF CALCULATION?

A. Yes. While I am not directly disputing Mr. Moul's adjusted dividend yields, it is important to recognize that, as cited above, the Commission has recently agreed with I&E's DCF methodology which includes the appropriate calculation of dividend yields. Although it is acceptable to adjust historical dividend yields as Mr. Moul has done, it is preferable to use forecasted dividends to calculate the dividend yields when available, such as the ones offered by Value Line that I have employed.

Q. WHAT WOULD MR. MOUL'S DCF BE WITHOUT ANY ADJUSTMENTS?

A. Without Mr. Moul's use of inflated growth rates and a leverage adjustment, his DCF would consist of his calculated dividend yield of 3.68% and an average growth rate of 6.24% as shown above results in a 9.92% cost of equity which is well below his claimed cost of equity of 11.20% and much closer to my recommended cost of equity of 9.61%.

<u>INFLATED BETAS USED IN CAPM ANALYSIS</u>

Q. HOW HAS MR. MOUL INFLATED THE BETAS EMPLOYED IN HIS CAPM ANALYSIS?

A. Mr. Moul has used the same logic for inflating his CAPM betas from 0.88 to 1.00 that he used to enhance his DCF returns, through a financial risk or "leverage" adjustment (Columbia Statement No. 8, p. 37, line 17 through p. 38, line 12). Such enhancements are unwarranted for beta in a CAPM analysis for the same reasons that enhancements are unwarranted for DCF results.

Also, if the unadjusted *Value Line* betas do not reflect an accurate investment risk as Mr. Moul contends, the question naturally arises as to why *Value Line* does not publish betas that are adjusted for leverage. Until this type of adjustment is demonstrated in the academic literature to be valid, such leverage adjusted betas in a CAPM model should be rejected. Furthermore, the Commission found no basis to add leverage adjusted betas in the most recent litigated Aqua Pennsylvania, Inc. base rate case.[13]

Finally, as described in my CAPM analysis above, a stock with a price movement that is greater than the overall stock market will have a beta that is greater than one and would be described as having more investment risk than the market. Due to being regulated and the monopolistic nature of utilities, very rarely do they have a beta equal to or greater than one. Therefore, in this case, to apply an adjusted beta of 1.00 to the entire industry or gas proxy group is irrational.

<u>SIZE ADJUSTMENT APPLIED TO CAPM ANALYSIS</u>

Q. WHAT SIZE ADJUSTMENT HAS MR. MOUL PROPOSED?

A. Mr. Moul added 102 basis points to his CAPM indicated cost of common equity

[13] *Pa. PUC v. Aqua Pennsylvania, Inc.;* Docket No. R-2021-3027385 (Order Entered May 16, 2022). *See generally* Disposition of Leverage Adjustment and Management Performance, pp. 166-167.

because he opined that as the size of a firm decreases, its risk and required return increases (Columbia Statement No. 8, p. 40, lines 22-23). Mr. Moul relied upon technical literature including Morningstar's Stocks, Bonds, Bills, and Inflation Yearbook, a Fama and French study entitled "The Cross-Section of Expected Stock Returns," and an article published in Public Utilities Fortnightly entitled "Equity and the Small-Stock Effect" (Columbia Statement No. 8, p. 40, line 23 through p. 41, line 6).

Q. BASED ON THE COMPANY'S FILED RATE BASE AND CLAIMED CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 102 BASIS POINTS TO THE COST OF EQUITY?

A. The example below illustrates the impact of 102 additional basis points to the Company's cost of equity:

Columbia Gas of Pennsylvania, Inc.

Claimed Equity Percentage of Capital Structure	54.38%
Additional Basis Points to Calculated Cost of Equity	102
Claimed Rate Base*	$2,958,295,013
Impact Prior to Gross Revenue Conversion Factor (0.5438 x 0.0102 x $2,958,295,013)	**$16,408,952**
Gross Revenue Conversation Factor**	1.42417301
Total Impact (1.42417301 x $16,408,952)	**$23,369,187**

*(Columbia Exhibit 102, Schedule 3, p. 3)
** (Columbia Exhibit No. 102, Schedule 3, p. 5)

In this example, an addition of 102 basis points to the cost of equity would force ratepayers to fund an unwarranted additional amount of $23,369,187.

Q. DO YOU AGREE WITH MR. MOUL'S SIZE ADJUSTMENT?

A. No. Mr. Moul's proposed size adjustment is unnecessary because the technical literature he cited supporting investment adjustments related to the size of a company is not specific to the utility industry; therefore, it has no relevance in this proceeding.

Q. IS THERE ACADEMIC EVIDENCE THAT SUPPORTS YOUR CONCLUSION THAT THE SIZE ADJUSTMENT FOR RISK IS NOT APPLICABLE TO UTILITY COMPANIES?

A. Yes. In the article "Utility Stocks and the Size Effect: An Empirical Analysis," Dr. Annie Wong concludes:

> The objective of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for utility stocks. This implies that although the size phenomenon has been strongly documented for the industriales, the findings suggest that there is no need to adjust for the firm size in utility rate regulation.[14]

Columbia has presented no evidence to support application of a non-utility study regarding a size adjustment for risk to a utility setting. Absent any credible article

[14] Dr. Annie Wong, "Utility Stocks and the Size Effect: An Empirical Analysis," *Journal of Midwest Finance Association* 1993, pp. 95-101.

to refute Dr. Wong's findings, Mr. Moul's size adjustment to his CAPM results should be rejected. Additionally, and more importantly, the Commission has recently rejected the application of a size adjustment to the CAPM cost of equity calculation.[15]

Q. WHAT WOULD MR. MOUL'S CAPM RESULT BE WITHOUT THE SIZE ADJUSTMENT AND INFLATED BETAS?

A. Mr. Moul's CAPM result would be 11.27% without his size adjustment and inflated betas which is 218 basis points lower than his originally calculated CAPM result of 13.45%. The calculation is repeated below without Mr. Moul's adjustments:

Rf	+	ß	*	(Rm-Rf)	+	size	=	K
2.75%	+	0.88	*	9.68%	+	0.00%	=	11.27%

<u>MANAGEMENT PERFORMANCE</u>

Q. WHAT IS THE COMPANY'S CLAIM REGARDING MANAGEMENT PERFORMANCE.

A. Mr. Moul explains that his 10.95% cost of equity recommendation includes 25 basis points in consideration of the Company's exemplary management performance (Columbia Statement No. 8, p. 6, line 16 through p. 7, line 1). The

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15 *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Capital Asset Pricing Model (CAPM), p. 100 and *Pa. PUC v. Aqua Pennsylvania, Inc.;* Docket No. R-2021-3027385 (Order Entered May 16, 2022). *See generally* Disposition of Leverage Adjustment and Management Performance, p. 154.

Company's rationale to support its management performance claim includes Columbia's management performance is demonstrated through among other things, its enhanced safety measures, accelerated infrastructure replacement plan, superior results in PUC Management Performance Audit and PUC UCARE reports, its PAR rate, Quality of Service Performance report, and its result in the 2021 J.D. Power Residential Customer Satisfaction Survey (Columbia Statement No. 1, p. 25, line 19 through p. 48, line 7).

Q. BASED ON THE COMPANY'S FILED RATE BASE AND CLAIMED CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 25 BASIS POINTS TO THE COST OF EQUITY?

A. The example below illustrates the impact of 25 additional basis points to the Company's cost of equity:

Columbia Gas of Pennsylvania, Inc.	
Claimed Equity Percentage of Capital Structure	54.38%
Additional Basis Points to Calculated Cost of Equity	25
Claimed Rate Base*	$2,958,295,013
Impact Prior to Gross Revenue Conversion Factor (0.5438 x 0.0025 x $2,958,295,013)	**$4,021,802**
Gross Revenue Conversation Factor**	1.42417301
Total Impact (1.42417301 x $4,021,802)	**$5,727,742**

*(Columbia Exhibit 102, Schedule 3, p. 3)
** (Columbia Exhibit No. 102, Schedule 3, p. 5)

In this example, an addition of 25 basis points to the cost of equity would force ratepayers to fund an unwarranted additional amount of $5,727,742.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIMS REGARDING MANAGEMENT EFFECTIVENESS?

A. No. Although the Company touts its Management Audit scores against other NGDC's it is not to say that the Company does not have room for improvement. According to the Commission's most recent Management and Operations Audit for Columbia Gas of Pennsylvania, Inc. (issued in June 2020) at Docket No. D-2019-3011582, the following deficits are illustrated regarding Columbia's customer service:

- Page 53 – Columbia's metering and billing policies and procedures are outdated;
- Page 53 – Columbia's average arrearages were higher throughout the audit period compared to a panel average of Pennsylvania natural gas distribution companies;
- Page 56 – Columbia's revenue recovery has not developed net collection performance goals with which to manage its third-party collection efforts;
- Page 58 – NiSource Corporate Services Company does not have a documented theft of service program; and

- Page 58 – Columbia's customer service representative turnover is higher than at other like utilities.

Unlike other areas, customer service is an area of management and operations over which the Company has complete and direct control. By awarding the Company management effectiveness points, it will cost ratepayers money for service that can and should be improved. Any savings from effective operating and maintenance cost measures should flow through to ratepayers and/or investors. These claimed savings would likely be offset by the addition of basis points for management effectiveness as ratepayers would have to fund the additional costs. This defeats the purpose of cutting expenses to benefit ratepayers.

Q. ARE YOU AWARE OF ANY OTHER COMPANIES THAT HAVE RECEIVED ADDITIONAL BASIS POINTS IN RECOGNITION OF MANAGEMENT PERFORMANCE?

A. Yes. In the most recent litigated Aqua base rate case, the Commission awarded Aqua an addition of 25 basis points for its management performance efforts.[16] However, it is important to recognize that this addition was based specifically on Aqua rescuing troubled water and wastewater systems at the Commission's request. In this proceeding, the Commission stated the following: [17]

> We specifically recognize Aqua's efforts and willingness to quickly provide emergency aid to various water and wastewater

[16] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 168-173 (Order entered May 16, 2022).

[17] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, p. 169 (Order entered May 16, 2022).

> systems that needed substantial improvement. Aqua has often provided this emergency aid on short notice and at the request of the Commission or other parties to protect the public from egregious health and safety threats and to protect the Commonwealth's drinking water resources from catastrophic damage.

Q. DOES THE COMMISSION'S PAST ISSUANCE OF ADDITIONAL EQUITY POINTS TO RECOGNIZE MANAGEMENT PERFORMANCE MEAN THAT COLUMBIA SHOULD ALSO RECEIVE AN ADJUSTED RETURN ON EQUITY?

A. No. The issuance of equity points to recognize management performance must always be done on a case-by-case basis. The situation in the Aqua case was very specific to the company rescuing troubled water and wastewater systems and preventing health and safety concerns regarding drinking water. This scenario does not apply to Columbia. Management performance is something that is very specific to each individual utility. Therefore, what the Commission has historically decided in this regard, and the management performance of other utilities, has no bearing on whether Columbia should receive a higher return on equity to recognize its management performance.

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE CONSIDERATION OF 25 ADDITIONAL BASIS POINTS FOR THE COMPANY'S MANAGEMENT PERFORMANCE?

A. Ultimately, for any company, true management effectiveness is earning a higher return through its efficient use of resources and cost cutting measures. The greater net income resulting from cost savings and true efficiency in management and operations is available to be passed on to shareholders. Columbia, or any utility should not be awarded additional basis points for doing what they are required to do in order to provide adequate, efficient, safe, and reasonable service under 66 Pa C.S.A. §1501 especially when compared to the reasons stated above by the Commission for Aqua being awarded management performance points.

OVERALL RATE OF RETURN RECOMMENDATION

Q. WHAT IS THE COMPANY'S PROPOSED OVERALL RATE OF RETURN?

A. The Company's proposed overall rate of return is 8.08% (Columbia Statement No. 8, p. 2, line 5).

Q. WHAT IS I&E'S RECOMMENDED OVERALL RATE OF RETURN?

A. I recommend an overall rate of return for the Company of 7.22% (I&E Exhibit No. 2, Schedule 1).

Q. DO YOU HAVE ANY FINAL COMMENTS REGARDING THE COMPANY'S PROPOSED RETURN ON EQUITY?

A. Yes. First, a report issued by Regulatory Research Associates, a group within S&P Global Market Intelligence,[18] illustrates that Columbia Gas of Pennsylvania,

[18] Regulatory Research Associates, "Major energy utility cases in progress in the US, Quarterly update on pending rate cases," *S&P Global Market Intelligence*, March 16, 2022.

Inc.'s 11.20% requested return on equity is a significant 99 basis points higher than the average return on equity request of 10.21% of all pending nationwide gas utility rate cases as of March 10, 2022. It is also important to note here that Pennsylvania is a deregulated state, which would indicate less risk.

Second, when asked, Mr. Moul indicated he was unaware if any natural gas distribution utilities throughout the United States were granted a Commission authorized return of 11.20% or higher cost of common equity in the past two years (I&E Exhibit No. 2, Schedule 13).

Third, the Company's requested return on common equity is 100 basis points higher than the Commission's approved DSIC rate of 10.20% (Q3 2021 Quarterly Earnings Summary Report) for gas distribution companies. My understanding is the DSIC rate is designed to encourage its use and to incentivize accelerated pipeline replacement and infrastructure upgrades to bring the existing aging infrastructure closer to meeting safety and reliability requirements in between base rate filings. Additionally, the DSIC rate establishes a benchmark above which a utility company is considered "overearning." As such, the DSIC rate does not serve as a proper measurement of a subject utility's cost of equity in a rate case proceeding. To suggest the cost of equity must be at or above the DSIC rate in this base rate proceeding is inappropriate and not in the public interest.

Finally, while I am aware of the rising costs of capital due to the after-effects of the pandemic and the increasing levels of inflation, I believe it is important not to over burden ratepayers. While the economy is in decline, Columbia is requesting a record return on equity to apply to its equity heavy capital structure. As detailed in the various charts above, the effect of Mr. Moul's adjustments to the market-determined cost of common equity are an enormous burden to ratepayers and are completely unwarranted and unnecessary. Although they are not cumulative, the impact to ratepayers of each of the disputed adjustments is summarized as follows:

Adjustment	Total Impact
Leverage Adjustment	$22,681,858
Size Adjustment	$23,369,187
Management Adjustment	$5,727,742

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

Christopher Keller

PROFESSIONAL AND EDUCATIONAL BACKGROUND

EXPERIENCE

- Pennsylvania Public Utility Commission, Harrisburg, Pennsylvania
  January 2014 to Present
  Fixed Utility Financial Analyst, Bureau of Investigation & Enforcement

- Pennsylvania Insurance Department, Harrisburg, Pennsylvania
  September 2008 to January 2014
  Insurance Company Financial Analyst, Bureau of Licensing & Financial Analysis

EDUCATION AND TRAINING

- FAI Utility, Boston, MA
  -Finance and Accounting for Financial Professionals
  May 21-23, 2014

- York College of Pennsylvania, York, Pennsylvania
  -Master of Business Administration, Finance Concentration
  2008
  -Bachelor of Science, Accounting,
  2006

TESTIMONY SUBMITTED IN THE FOLLOWING CASES

- A-2021-3026132 – Aqua Pennsylvania Wastewater, Inc. – Acquisition of the Wastewater Collection and Conveyance System Assets of East Whiteland Township (1329)
- P-2021-3030012 – Metropolitan Edison Company (DSP)
- P-2021-3030013 – Pennsylvania Electric Company (DSP)
- P-2021-3030014 – Pennsylvania Power Company (DSP)
- P-2021-3030021 – West Penn Power Company (DSP)
- R-2021-3026116 – Borough of Hanover – Water (ROR)
- R-2021-3025206 – Community Utilities of Pennsylvania – Water Division (ROR)
- R-2021-3025207 – Community Utilities of Pennsylvania – Wastewater Division (ROR)
- R-2021-3025652 – UGI Utilities, Inc. – Gas Division (1307(f))
- R-2021-3024750 – Duquesne Light Company (O&M and ROR)
- R-2021-3024296 – Columbia Gas of Pennsylvania, Inc. (ROR)
- R-2020-3018929 – PECO Energy Company – Gas Division (ROR)

TESTIMONY SUBMITTED (CONTINUED)

- P-2020-3020914 – Twin Lakes Utilities, Inc. (529 Proceeding)
- R-2020-3018835 – Columbia Gas of Pennsylvania, Inc. (ROR)
- R-2020-3019680 – UGI Utilities, Inc. (1307(f))
- P-2020-3019356 – PPL Electric Utilities Corporation (DSP)
- R-2019-3015162 – UGI Utilities, Inc. – Gas Division (ROR)
- R-2019-3010955 – City of Lancaster – Sewer Fund (O&M)
- R-2019-3009647 – UGI Utilities, Inc. – Gas Division (1307(f))
- R-2018-3006818 – Peoples Natural Gas Company LLC (O&M)
- R-2018-3000124 – Duquesne Light Company (O&M)
- R-2018-3001631 – UGI Central Penn Gas, Inc. (1307(f))
- R-2018-3001632 – UGI Penn Natural Gas, Inc. (1307(f))
- R-2018-3001633 – UGI Utilities, Inc. (1307(f))
- R-2018-2645938 – Philadelphia Gas Works (1307(f))
- P-2017-2637855 – Metropolitan Edison Company (DSP)
- P-2017-2637857 – Pennsylvania Electric Company (DSP)
- P-2017-2637858 – Pennsylvania Power Company (DSP)
- P-2017-2637866 – West Penn Power Company (DSP)
- R-2017-2602627 – UGI Central Penn Gas, Inc. (1307(f))
- R-2017-2602638 – UGI Utilities, Inc. (1307(f))
- R-2017-2586783 – Philadelphia Gas Works (O&M)
- R-2017-2587526 – Philadelphia Gas Works (1307(f))
- I-2016-2526085 – Delaware Sewer Company (529 Proceeding)
- R-2016-2531550 – Citizens' Electric Company (O&M)
- R-2016-2531551 – Wellsboro Electric Company (O&M)
- R-2016-2537349 – Metropolitan Edison Company (CWC and CAP)
- R-2016-2537352 – Pennsylvania Electric Company (CWC and CAP)
- R-2016-2537355 – Pennsylvania Power Company (CWC and CAP)
- R-2016-2537359 – West Penn Power Company (CWC and CAP)
- R-2016-2543311 – UGI Central Penn Gas, Inc. (1307(f))
- R-2015-2518438 – UGI Utilities, Inc. – Gas Division (CWC and USP)
- P-2015-2511333 – Metropolitan Edison Company (DSP)
- P-2015-2511351 – Pennsylvania Electric Company (DSP)
- P-2015-2511355 – Pennsylvania Power Company (DSP)
- P-2015-2511356 – West Penn Power Company (DSP)
- R-2015-2468056 – Columbia Gas of Pennsylvania, Inc. (O&M)
- P-2014-2404341 – Delaware Sewer Company (529 Investigation)
- R-2014-2452705 – Delaware Sewer Company (O&M)
- R-2014-2428304 – Borough of Hanover – Water (O&M)
- R-2014-2419774 – Wellsboro Electric Company (Customer Choice Support Charge)
- R-2014-2420279 – UGI Central Penn Gas, Inc. (1307(f))

<u>ASSISTED WITH THE FOLLOWING CASES (Testimony not Required)</u>

- R-2017-2631441 – Reynolds Water Company (ROR)
- R-2016-2580030 – UGI Penn Natural Gas, Inc. (ROR)
- R-2014-2462723 – United Water Pennsylvania (CWC)
- R-2014-2428742 – West Penn Power Company (CWC)
- R-2014-2428743 – Pennsylvania Electric Company (CWC)
- R-2014-2428744 – Pennsylvania Power Company (CWC)
- R-2014-2428745 – Metropolitan Edison Company (CWC)
- R-2013-2397353 – Pike County Light & Power Company (Gas) (O&M)
- R-2013-2397237 – Pike County Light & Power Company (Electric) (O&M)

I&E Exhibit No. 2
Witness: Christopher Keller

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Exhibit to Accompany

the

Direct Testimony

of

Christopher Keller

Bureau of Investigation and Enforcement

Concerning:

Rate of Return

I&E
Summary of Cost of Capital

Columbia Gas of Pennsylvania, Inc.

Type of Capital	Ratio	Cost Rate	Weighted Cost
Long Term Debt	43.23%	4.51%	1.95%
Short-Term Debt	2.39%	1.65%	0.04%
Common Equity	54.38%	9.61%	5.23%
Total	100.00%		7.22%

I&E Exhibit No. 2
Schedule 2
Page 1 of 1

Proxy Group Capital Structure

	2021		2020		2019		2018		2017		Average
Atmos Energy Corp											
Long-term Debt	$ 5,124.950	39.33%	$ 4,732.850	41.07%	$ 3,529.452	36.22%	$ 2,493.665	31.81%	$ 3,067.045	41.37%	37.96%
Short-term Debt	-	0.00%	-	0.00%	464.915	4.77%	575.780	7.34%	447.745	6.04%	3.63%
Common Equity	7,906.889	60.67%	6,791.203	58.93%	5,750.223	59.01%	4,769.950	60.85%	3,898.666	52.59%	58.41%
	13,031.839	100.00%	11,524.053	100.00%	9,744.590	100.00%	7,839.395	100.00%	7,413.456	100.00%	100.00%
Chesapeake Utilities											
Long-term Debt	558.474	35.93%	518.371	37.26%	450.064	35.75%	316.020	27.99%	197.395	21.12%	31.61%
Short-term Debt	221.634	14.26%	175.644	12.63%	247.371	19.65%	294.458	26.08%	250.969	26.85%	19.89%
Common Equity	774.130	49.81%	697.085	50.11%	561.577	44.60%	518.439	45.92%	486.294	52.03%	48.50%
	1,554.238	100.00%	1,391.100	100.00%	1,259.012	100.00%	1,128.917	100.00%	934.658	100.00%	100.00%
Nisource Inc											
Long-term Debt	9,211.300	60.71%	9,249.700	63.25%	7,907.800	53.48%	7,105.400	50.92%	7,512.200	57.62%	57.19%
Short-term Debt	560.000	3.69%	503.000	3.44%	1,773.200	11.99%	1,977.200	14.17%	1,205.700	9.25%	8.51%
Common Equity	5,400.800	35.60%	4,872.200	33.31%	5,106.700	34.53%	4,870.900	34.91%	4,320.100	33.13%	34.30%
	15,172.100	100.00%	14,624.900	100.00%	14,787.700	100.00%	13,953.500	100.00%	13,038.000	100.00%	100.00%
Northwest Natural Gas Co											
Long-term Debt	1,124.055	45.90%	940.702	44.08%	806.796	44.28%	706.247	41.88%	683.184	46.16%	44.46%
Short-term Debt	389.500	15.91%	304.525	14.27%	149.100	8.18%	217.620	12.90%	54.200	3.66%	10.99%
Common Equity	935.146	38.19%	888.733	41.65%	865.999	47.53%	762.634	45.22%	742.776	50.18%	44.55%
	2,448.701	100.00%	2,133.960	100.00%	1,821.895	100.00%	1,686.501	100.00%	1,480.160	100.00%	100.00%
One Gas Inc.											
Long-term Debt	3,707.778	56.60%	1,613.228	37.83%	1,314.064	33.18%	1,285.483	35.44%	1,193.257	33.99%	39.41%
Short-term Debt	494.000	7.54%	418.225	9.81%	516.500	13.04%	299.500	8.26%	357.215	10.18%	9.76%
Common Equity	2,349.532	35.86%	2,233.311	52.37%	2,129.390	53.77%	2,042.656	56.31%	1,960.209	55.84%	50.83%
	6,551.310	100.00%	4,264.764	100.00%	3,959.954	100.00%	3,627.639	100.00%	3,510.681	100.00%	100.00%
Spire Inc.											
Long-term Debt	2,992.800	49.22%	2,482.100	45.88%	2,082.600	40.62%	1,900.100	40.35%	1,995.000	44.69%	44.15%
Short-term Debt	672.000	11.05%	648.000	11.98%	743.200	14.50%	553.600	11.76%	477.300	10.69%	11.99%
Common Equity	2,416.200	39.73%	2,280.300	42.15%	2,301.000	44.88%	2,255.400	47.89%	1,991.300	44.61%	43.85%
	6,081.000	100.00%	5,410.400	100.00%	5,126.800	100.00%	4,709.100	100.00%	4,463.600	100.00%	100.00%

Five-Year Average Capital Structure

Long-term Debt	42.46%
Short-term Debt	10.80%
Common Equity	46.74%
	100.00%

Source:
Compustat (S&P Global Market Intelligence - Data Management Solutions)
Yearly data updates typically provided late April of each year
(data in millions)

Accessed on May 2, 2022

	2021		
	Interest Charges	**Long-term Debt**	**Debt Cost**
Atmos Energy Corp	94.97	5,124.95	1.85%
Chesapeake Utilities	19.57	558.47	3.50%
Nisource Inc	345.70	9,211.30	3.75%
Northwest Natural Gas Co	44.49	1,124.06	3.96%
One Gas Inc.	64.50	3,707.78	1.74%
Spire Inc.	111.00	2,992.80	3.71%
	Range:	**Low**	**1.74%**
		High	**3.96%**
		Average	**3.09%**

Source:
Compustat (S&P Global Market Intelligence - Data Management Solutions)
Yearly data updates typically provided late April of each year
(data in millions)

Accessed on May 2, 2022

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RR

Question No. I & E RR-003-D:

Reference Columbia Statement No. 8, page 20, lines 1-4 concerning the short-term debt cost rate:

A. Provide the source of the 1.35% LIBOR rate used to calculate the short-term debt cost rate.

B. Provide the calculation and explanation of the 30-basis point spread used to calculate the short-term debt cost rate.

Response:

A. As a preliminary matter, there is no reference to a 1.35% LIBOR rate on page 20 of Columbia Statement No. 8. Please refer to Attachment A to this response that shows that a LIBOR rate of 1.47% was used for this case.

B. Upon review of Columbia Statement No. 8, it was discovered that there is a typo on page 20. The correct spread over the LIBOR rate is 0.20%. An errata will be filed to correct the typo in my testimony. See Attachment A for the components of the 1.65% cost rate for short-term debt for the FPFTY. Attachment A shows the calculation of the 20-basis point spread. The 20-basis point spread was derived by looking at the average spread between actual commercial paper rate and 3M LIBOR during 2019-2021.

	2022 Short-Term Borrowing Rate						2023 Short-Term Borrowing Rate				
	3/31/22	6/30/22	9/30/22	12/31/22	Average		3/31/23	6/30/23	9/30/23	12/31/23	Average
3-Month Libor*	0.39%	0.62%	0.80%	1.01%	0.71%		1.17%	1.38%	1.60%	1.71%	1.47%
CP Spread**	0.20%	0.20%	0.20%	0.20%	0.20%		0.20%	0.20%	0.20%	0.20%	0.20%
All In Rate***	0.60%	0.80%	1.00%	1.20%	0.90%		1.35%	1.60%	1.80%	1.90%	1.65%

** Analyst projections from Bloomberg*
*** Average CP spread to 3 Month Libor from 2019-2021*
**** Rounded to the nearest 5 bps*

Enter # <GO> for details

Chart | Export | Disclaimer | Page 1/3 **Bond Yield Forecasts**

Region: G7 | Spread: 2 Year - 10 Year

	Rate	Mkt Yld	Q1 22	Q2 22	Q3 22	Q4 22	Q1 23	Q2 23	Q3 23	Q4 23	Q1 24	Q2 24
	United States											
1)	US 30-Year	2.07	2.19	2.35	2.44	2.52	2.59	2.65	2.71	2.77	2.98	3.06
2)	US 10-Year	1.73	1.81	1.95	2.05	2.13	2.20	2.29	2.36	2.44	2.59	2.67
3)	US 5-Year	1.51	1.50	1.62	1.71	1.80	1.89	1.99	2.06	2.13	2.23	2.32
4)	US 2-Year	0.96	0.92	1.09	1.26	1.40	1.53	1.66	1.77	1.87	1.99	2.09
5)	US 3-Month Libor	0.26	0.39	0.62	0.80	1.01	1.17	1.38	1.60	1.71	1.79	1.89
6)	Fed Funds Rate - Upper Bound	0.25	0.40	0.65	0.90	1.05	1.25	1.45	1.65	1.80	1.95	2.10
7)	Fed Funds Rate - Lower Bound	0.00	0.17	0.39	0.63	0.82	1.02	1.21	1.39	1.57	1.68	1.84
	2 Year - 10 Year Spread	0.78	0.89	0.86	0.79	0.74	0.67	0.63	0.58	0.57	0.60	0.58
	Germany											
8)	Germany 10-Year	-0.11	-0.06	0.02	0.07	0.11	0.17	0.24	0.31	0.36	0.49	0.57
9)	Germany 2-Year	-0.66	-0.59	-0.58	-0.56	-0.54	-0.48	-0.43	-0.38	-0.33	-0.27	-0.21
10)	3-Month Euribor	-0.55	-0.54	-0.53	-0.51	-0.49	-0.45	-0.43	-0.44	-0.35	-0.35	-0.27
11)	ECB Main Refinancing Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.10	0.15
12)	ECB Deposit Rate	-0.50	-0.50	-0.50	-0.50	-0.49	-0.47	-0.47	-0.43	-0.38	-0.29	-0.19
	2 Year - 10 Year Spread	0.55	0.53	0.60	0.63	0.65	0.65	0.67	0.69	0.69	0.77	0.78
	United Kingdom											
13)	UK 10-Year	1.12	1.18	1.30	1.36	1.43	1.48	1.56	1.56	1.61	1.83	1.88
14)	UK 2-Year	0.86	0.78	0.88	0.98	1.06	1.15	1.24	1.17	1.22	1.43	1.48
15)	UK 3-Month Libor	0.55	0.40	0.48	0.59	0.70	0.80	0.82	1.05	1.13	1.37	
16)	BOE Bank Rate	0.25	0.40	0.55	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.45
	2 Year - 10 Year Spread	0.26	0.41	0.43	0.38	0.37	0.33	0.33	0.39	0.38	0.41	0.40

I&E Exhibit No. 2
Schedule 5
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Blue Chip Financial Forecasts®

Top Analysts' Forecasts Of U.S. And Foreign Interest Rates, Currency Values And The Factors That Influence Them

Vol. 40, No. 12, December 1, 2021

Wolters Kluwer

COVID Omicron Variant Confuses Outlook, Especially Accompanied by High Inflation

Over the Thanksgiving holiday, a new variant of the COVID virus was reported, especially in South Africa and Botswana. South African doctors indicate that it has very mild symptoms, so that people can generally be treated at home. The World Health Organization has designated this as the "Omicron" variant and describes it as a "variant of concern." So far, at this writing, no cases have been reported in the United States, although there are some nearby in Canada.

Holiday Period Generates Erratic Financial Market Moves, then Fed Chair Powel Testifies. The first reports of this variant set off strong movements in financial markets on Friday, November 26, the day after Thanksgiving. Because of the post-holiday atmosphere, trading volume was light, which meant that price movements may have been exaggerated. Erratic movements in Treasury rates and other fixed-income sectors continued. Then on November 30th, Federal Reserve Chairman Powell testified before a Congressional committee and suggested that the current high inflation might prompt the Fed to quicken the pace of its bond-purchase "tapering."

The Blue Chip Financial Forecasts survey for December was taken on November 22 and 23, that is, the Monday and Tuesday before Thanksgiving. During the subsequent market whipsaws, no participants have asked to alter their forecasts. This likely stands to reason in light of the absence of comprehensive and definitive information about the Omicron variant and the fact that, as of November 29, it has not spread within the United States.

The forecasts as submitted continue to reflect the current strong inflationary environment, exacerbated by the continuing supply-chain issues. Some of the latter are starting to ease, for instance, as container ships are now being charged fees if they leave containers on docks in California.

Growth Expected to Improve, Inflation to Moderate. The Blue Chip panel's projections for GDP growth envision a rebound this quarter to a 5.1% seasonally adjusted annual rate from the meager 2.1% in Q3. In early 2022, Q1 would see 4.4% and Q2 3.8% with the following three quarters averaging 2.8%. While inflation is expected to remain undesirably strong this quarter and next, the panel believes that it would moderate later in 2022, staying just slightly higher than in last month's forecast. The personal consumption expenditure price index rose at a 5.3% annualized pace in Q3 and the Blue Chip panel estimates it at 4.5% this quarter. In 2022, it would moderate from 2.9% in Q1 to 2.3% in Q4; the result for the year would be 2.5%, compared to 2.4% in the November forecast.

The panel's interest rate forecasts indicate that the higher-than-expected inflation might, as Fed Chair Powell hinted in his testimony, encourage the Fed to raise the federal funds rate somewhat earlier than they have been expecting. So the December forecast expects that the rate would start to climb in Q3 2022 rather than Q4. By Q1 2023, the rate would be 0.6%, compared with 0.4% in the November forecast. The 10-year Treasury rate would be 2.2% by that early 2023 period, the same as projected in the November forecast. The Blue Chip panel thus see the earlier Fed actions as perhaps reducing market concerns sufficiently to keep investors comfortable.

Long-term Federal Funds Rate Just Above 2%. This month's survey also includes the semi-annual long-term projections. GDP growth in 2023 is projected at 2.6% and then easing to 2.0% by 2026. This is just 0.1% below the projections for 2028-2032 made at the end of May. Inflation, measured by the personal consumption expenditure price index, would be 2.5% in 2023 and then ease to 2.1% across the rest of the forecast horizon. The 2% long-term growth rate would be associated with a federal funds rate edging up to 2.2% by 2026 and hovering near there after that. The 10-year Treasury yield would be 3.2% by mid-decade.

\+ + + + +

SOFR Forecast Preview

Here are the Consensus forecasts for 3-month LIBOR and for the Secured Overnight Financing Rate, i.e., SOFR. As we have explained in the last couple of months, the LIBOR rates will be discontinued starting in January and for representations of short-term private sector borrowing rates, markets will focus on SOFR. Thus, beginning in the January edition of the Blue Chip Financial Forecasts, we will include SOFR in the regular forecast tables and show the forecasts of individual survey participants, not just the consensus average.

We clearly invite questions from forecast participants and subscribers to the publication. Meantime, readers can refer to this link from the New York Federal Reserve Bank, which is the official source of the daily SOFR rates.

	LIBOR 3-Month	**Secured Overnight Financing Rate (SOFR)**
Q1 2021	0.20	0.04
Q2 2021	0.16	0.02
Q3 2021	0.13	0.05
Q4 2021	0.18	0.06
Q1 2022	0.21	0.07
Q2 2022	0.26	0.09
Q3 2022	0.37	0.18
Q4 2022	0.57	0.36
Q1 2023	0.73	0.48

Carol Stone, CBE (Haver Analytics, New York, NY)

Dividend Yields of Six Company Proxy Group

Company	**Atmos Energy Corp**	**Chesapeake Utilities**	**Nisource Inc**	**Northwest Natural Gas Co**	**One Gas Inc.**	**Spire Inc.**
Symbol	*ATO*	*CPK*	*NI*	*NWN*	*OGS*	*SR*
Div	2.92	2.16	0.98	1.94	2.64	2.86
52-wk low	85.80	113.49	23.48	43.07	62.52	59.60
52-wk high	122.11	146.30	32.59	57.63	91.79	77.95
Spot Price	122.05	139.37	32.46	51.72	91.37	74.55
Spot Div Yield	2.39%	1.55%	3.02%	3.75%	2.89%	3.84%
52-wk Div Yield	2.81%	1.66%	3.50%	3.85%	3.42%	4.16%
Average	**2.60%**	**1.61%**	**3.26%**	**3.80%**	**3.16%**	**4.00%**

	Average
Spot Div Yield	**2.91%**
52-wk Div Yield	**3.23%**
Average	**3.07%**

Source:	Barrons	April 7, 2022
	Value Line	February 25, 2022

I&E Exhibit No. 2
Schedule 7
Page 1 of 1

Five-Year Growth Estimate Forecast for Proxy Group

Company	Symbol	Yahoo	Zacks	Morningstar	Value Line	Average
		Source				
Atmos Energy Corp	ATO	7.20%	7.30%	7.30%	7.50%	7.33%
Chesapeake Utilities	CPK	4.74%	NMF	8.20%	8.00%	6.98%
Nisource Inc	NI	3.52%	7.20%	7.50%	10.50%	7.18%
Northwest Natural Gas Co	NWN	5.70%	5.10%	6.40%	6.00%	5.80%
One Gas Inc.	OGS	2.90%	5.00%	NMF	6.00%	4.63%
Spire Inc.	SR	7.31%	5.30%	7.60%	9.00%	7.30%
Average						**6.54%**

Source:
(From Internet)
April 7, 2022

Expected Market Cost Rate of Equity

Using Data for the Proxy Group of Six Natural Gas Companies

5-Year Forecasted Growth Rates

	Time Period		Adjusted Dividend Yield (1)	Growth Rate (2)	Expected Return on Equity (3=1+2)
(1)	**52-Week Average**		3.23%	6.54%	9.77%
	Ending:	April 7, 2022			
(2)	**Spot Price**		2.91%	6.54%	9.44%
	Ending:	April 7, 2022			
(3)	**Average:**		**3.07%**	**6.54%**	**9.61%**

Sources: Value Line February 25, 2022
Barrons April 7, 2022

Company	Beta
Atmos Energy Corp	0.80
Chesapeake Utilities	0.80
Nisource Inc	0.85
Northwest Natural Gas Co	0.80
One Gas Inc.	0.80
Spire Inc.	0.85
Average beta for CAPM	**0.82**

Source:
Value Line
February 25, 2022

I&E Exhibit No. 2
Schedule 10
Page 1 of 1

Risk-Free Rate

Treasury note 10-yr Note	**Yield**
3Q 2022	2.60
4Q 2022	2.80
1Q 2023	2.90
2Q 2023	3.00
3Q 2023	3.10
2023-2027	2.90
Average	**2.88**

Source:
Blue Chip
April 1, 2022 and December 1, 2021

Required Rate of Return on Market as a Whole Forecasted

	Dividend Yield	+	Growth Rate	=	Expected Market Return
Value Line Estimate	1.90%		10.67%	(a)	12.57%
S&P 500	1.48%	(b)	14.30%		15.78%
Average Expected Market Return				=	**14.17%**

(a) ((1+50%)^.25) -1) Value Line forecast for the 3 to 5 year index appreciation is 50%
(b) S&P 500 dividend yield multiplied by half the S&P 500 growth rate
(b) 1.38%*((1+14.30%/2)) = 1.48%

Sources:

S&P 500 Growth Rate (Morningstar)	4/7/2022	14.30%
S&P 500 Dividend Yield (Barrons)	4/7/2022	1.38%
Value Line Dividend Yield	4/8/2022	1.90%
Value Line Appreciation Yield	4/8/2022	50%

CAPM with Forecasted Return

Re	Required return on individual equity security
Rf	Risk-free rate
Rm	Required return on the market as a whole
Be	Beta on individual equity security

Re = Rf+Be(Rm-Rf)

Rf =	2.88
Rm =	14.17
Be =	0.82
Re =	**12.14**

Sources: Value Line February 25, 2022
Blue Chip April 1, 2022 and December 1, 2021

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RR

Question No. I & E RR-010-D:

Reference Columbia Statement No. 8, page 44, line 22 through p. 45, line 2:

A. State whether Mr. Moul is aware of any natural gas distribution utilities throughout the United States that have been granted a Commission authorized 11.20% or higher cost of common equity in the past two years.

B. If the response to Part A is yes, state which company/companies have been authorized such cost of common equity and in what jurisdiction.

Response:

A. Mr. Moul has not researched this issue.

B. See the response to (A) above.

I&E Statement No. 3
Witness: Ethan H. Cline

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Direct Testimony

of

Ethan H. Cline

Bureau of Investigation and Enforcement

Concerning:

Fully Projected Future Test Year Reporting Requirements
Revenue Normalization Adjustment
Cost of Service Study
Scale Back of Rates

TABLE OF CONTENTS

<u>INTRODUCTION</u>

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Ethan H. Cline. My business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

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

A. I am employed by the Pennsylvania Public Utility Commission in the Bureau of Investigation and Enforcement ("I&E") as a Fixed Utility Valuation Engineer.

Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

A. My education and professional background are set forth in Appendix A, which is attached.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. The I&E analysis in the proceeding is based on its responsibility to represent the public interest. This responsibility requires the balancing of the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. My direct testimony relates to Columbia Gas of Pennsylvania, Inc.'s ("Columbia Gas" or "Company") requested base rate revenue increase of $82,151,953.[1] My testimony specifically addresses the following issues:

- Fully Projected Future Test Year ("FPFTY") Reporting Requirements;
- Revenue Normalization Adjustment;
- Revenue allocation;
- Rate structure;
- Customer charge;
- Cost of Service allocation; and
- Scale back of rates.

<u>FPFTY REPORTING REQUIREMENTS</u>

Q. WHAT TEST YEAR DID THE COMPANY ELECT TO USE IN THIS PROCEEDING?

A. Columbia elected to base its rates on an FPFTY ending December 31, 2023. The Company also addressed a historic test year ("HTY") ended November 30, 2021 and future test year ("FTY") ending November 30, 2022 (Columbia St. No. 4, p. 3).

---

1 Columbia Gas Statement No. 4, p. 4.

Q. WHAT AMOUNT OF ADDITIONAL RATE BASE WILL BE ASSOCIATED WITH COLUMBIA'S INCLUSION OF THE FPFTY ENDING DECEMBER 31, 2023?

A. The Company's claimed rate base for the FPFTY ending December 31, 2023 is $2,958,295,013 (Columbia Ex. No. 108, p. 3, col. 5). Columbia's rate base for the FTY ending November 30, 2021 is $2,609,947,601 (Columbia Ex. No. 108, p. 3, col. 3). Therefore, $348,347,412 ($2,958,295,013 – $2, 609,947,601) of rate base additions are associated with the thirteen months between the end of FTY and the end of the FPFTY.

Q. DID THE COMPANY PROVIDE A SCHEDULE SHOWING PLANT ADDITIONS AND RETIREMENTS THAT SUPPORT THE PROJECTED LEVEL OF TOTAL PLANT IN THE FTY AND FPFTY RATE BASE?

A. Yes. The Company provided Columbia Ex. No. 108, Sch. 1 showing detailed plant additions and retirements for the FTY and FPFTY.

Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING PLANT ADDITIONS THAT COLUMBIA PROJECTS TO BE IN SERVICE DURING THE FTY ENDING NOVEMBER 30, 2022 AND THE FPFTY ENDING DECEMBER 31, 2023?

A. Yes. I recommend that the Company provide the Bureau of Investigation and Enforcement and the Office of Consumer Advocate with an update to Columbia

Exhibit No. 108, Schedule 1 no later than April 1, 2023, under this docket number, which should include actual capital expenditures, plant additions, and retirements by month for the twelve months ending November 30, 2022. An additional update should be provided for actuals through December 31, 2023, no later than April 1, 2024.

Q. WHY DO YOU RECOMMEND THAT COLUMBIA PROVIDE THESE UPDATES?

A. I&E continues to believe that there is value in determining how closely Columbia's projected investments in future facility comport with the actual investments that are made by the end of the FTY and FPFTY. Determining the correlation between Columbia's projected and actual results will help inform the Commission and the parties in Columbia's future rate cases as to the validity of Columbia's projections.

Using a FPFTY, Columbia is requesting ratepayers pre-pay a return on its projected investment in future facilities that are not in place and providing service at the time the new rates take effect, but also are not subject to any guarantee of being completed and placed into service. While the FPFTY provides for such projections, there should be verification of the projections. Therefore, requiring the Company to provide updates demonstrating that actual investments comport with projections used in setting rates using the FPFTY provides the Commission with actual data to gauge the accuracy of Columbia's projected investments in future proceedings.

REVENUE NORMALIZATION ADJUSTMENT

Q. WHAT IS A REVENUE NORMALIZATION ADJUSTMENT?

A. A revenue normalization adjustment ("RNA") is a tariff provision that is "designed to 'break the link' between residential non-gas revenue received by the Company and gas consumed by non-CAP residential customers." (Columbia St. No. 6, p. 29). In other words, the Company is proposing to stabilize its revenue level received from customers by enacting a "benchmark distribution revenue level" and adjusting revenues to that point regardless of actual usage levels.

Q. IS THE COMPANY PROPOSING AN RNA IN THIS PROCEEDING?

A. Yes. The Company is proposing to apply an RNA to its non-CAP residential customers (Columbia St. No. 6, p. 29).

Q. HOW DOES THE COMPANY PROPOSE TO ENACT THE RNA?

A. The Company proposes to set the benchmark distribution revenue levels by month for the peak period, October through March, and off-peak period, April through September, separately, based on the revenue requirement approved in the present proceeding (Columbia St. No. 6, p. 34).

Q. IS THIS THE FIRST PROCEEDING IN WHICH THE COMPANY HAS PROPOSED TO ENACT THE RNA?

A. No. The Company has proposed to enact the RNA in several previous rate cases. Most recently, the Company proposed to enact the RNA in its prior 2021 rate case at Docket No. R-2021-3024296.

Q. DID THE COMPANY MAKE ANY CHANGES TO ITS PROPOSED RNA BETWEEN THE LAST PROCEEDING AND THE PRESENT PROCEEDING?

A. Functionally, no. The Company simply updated its data and proposed rates to align with the FPFTY in the present proceeding.

Q. DO YOU RECOMMEND THAT THE RNA BE APPROVED?

A. No.

Q. WHY DO YOU RECOMMEND THAT THE RNA NOT BE APPROVED?

A. I recommend that the RNA not be approved for the following reasons. First, the Commission recently determined the RNA was unnecessary. Second, the policy statement cited by the Company does not allow Columbia to abandon the necessity to charge just and reasonable rates. Third, the use of the FPFTY already provides projected lower usage levels.

Q. WHAT DID THE COMMISSION DETERMINE REGARDING THE RNA IN COLUMBIA'S 2020 BASE RATE CASE?

A. The Commission determined that the RNA, as presented in Columbia's 2020 base rate case, was not needed and would not produce rates that are just, reasonable, and in the public interest. (Docket No. R-2020-3018835, pp. 264-265, Order entered February 19, 2021).

Q. DOES THE REFERENCE TO THE STATEMENTS OF POLICY IN THE ALTERNATIVE RATE MAKING DOCKET NEGATE THE OBLIGATION OF A COMPANY TO CHARGE RATES THAT ARE JUST, REASONABLE, AND IN THE PUBLIC INTEREST?

A. No. The Statements of Policy as outlined by the Commission in the alternative rate making Docket No. M-2015-2518883 does not negate the obligation of a Company to charge rates that are just and reasonable. Moreover, Columbia seeks to point to the 2015 Policy Statement as justification for the RNA but disregards the Commission's February 19, 2021 Order denying Columbia's RNA proposal.

Q. DOES THE USE OF THE FPFTY ALREADY INCLUDE PROJECTED ADJUSTMENTS FOR DECLINES IN USAGE?

A. Yes. Through Act 11 and the FPFTY, the Company is permitted to build into its revenue requirement an adjustment for revenue lost due to a decline in usage that is projected to occur up to a year after rates go into effect. The Company did so in this proceeding as it is projecting a reduction in customer usage over the FPFTY and included an adjustment to revenues to account for that reduction, as discussed below.

Q. HAS THE COMPANY DEMONSTRATED A NEED FOR REVENUE STABILIZATION?

A. No. The purpose of revenue stabilization is to remove the inherent risk of not recovering the full amount of revenue requirement allowed by the Commission due to changes in usage. Between the frequent base rate cases filed by the Company, staying out no more than two years, the FPFTY, the DSIC, and the WNA, the Company has demonstrated no need for further revenue stabilization measures. Additionally, the Company has not indicated that the RNA will result in fewer base rate increases, thus removing any benefit from the residential customers. Furthermore, as I stated above, the Company did not add any additional information or support that would cause the Commission to reverse its decision that the RNA does not provide rates that are just, reasonable, and in the public interest.

<u>COST OF SERVICE</u>

Q. WHAT IS AN ALLOCATED COST OF SERVICE ("ACOS") STUDY?

A. A utility provides service to a defined set of customer classes that are different in terms of demand and usage patterns. An ACOS allocates or assigns a utility's revenue requirement based on those service differences. In other words, an ACOS is a formalized analysis of costs that attempts to assign to each customer or rate class its proportionate share of the Company's total cost of service (i.e., the Company's total revenue requirement). The results of such a study can be utilized to determine the relative cost of service for each class and help determine the individual class revenue requirements and, to the extent a particular class is above or below the system average rate of return, show the additional revenues each class receives or conversely the additional revenues that each class contributes to the Company's overall revenues. In addition to the relative provision of revenues, a relative rate of return is also provided, which shows how the rate of return for each class compares to the system average rate of return.

Q. WHAT ARE RATE OF RETURN AND RELATIVE RATE OF RETURN?

A. The rate of return is the Commission authorized return on rate base that is determined in a base rate proceeding. A relative rate of return indicates how the rate of return of each customer class compares to the system average rate of return. In general, a relative rate of return that provides revenue equal to its cost to serve would have a relative rate of return equal to 1.0. If a class of service has a relative rate of return below 1.0, the revenue received from that class does not cover the cost of providing service to that class. If a class of service has a relative rate of return above 1.0, the revenue received from that class exceeds the cost of providing service to that class.

Q. DID THE COMPANY PROVIDE AN ACOS STUDY IN THIS PROCEEDING?

A. Yes. The Company performed and provided three ACOS studies in its filing sponsored by Columbia witness Kevin L. Johnson as he described on page 4 of Columbia Statement No. 6. The first is a customer-demand ACOS study (Columbia Exhibit No. 111, Schedule 1), the second is a peak and average ACOS study (Columbia Exhibit No. 111, Schedule 2), and the third ACOS study is an average of the customer-demand studies and the peak and average studies (Columbia Exhibit No. 111, Schedule 3).

Q. WHAT IS THE LARGEST CAPITAL COST FOR COLUMBIA?

A. On page 10 of Columbia Statement No. 6, Mr. Johnson states that "[m]ains and services account for the majority of the Company's gross plant investment and distribution O&M expenses."

Q. WHAT IS THE MAIN DIFFERENCE BETWEEN THE CUSTOMER-DEMAND AND THE PEAK AND AVERAGE ACOS STUDIES?

A. The difference between the customer-demand ACOS and the peak and average ACOS studies presented by Mr. Johnson in Company Exhibit No. 111 is in the way that each study allocates the costs of mains. Consequently, the two ACOS studies yield different relative rates of return for each rate class.

The customer-demand methodology classifies distribution mains as partially customer related and partially demand related. The customer portion of mains is then allocated to the various customer classes based on the total number of customers, while the demand portion of mains is allocated to classes based on peak day contributions or demand. This methodology was rejected by the Commission in the Company's 2020 base rate case (Docket No. R-2020-3018835, pp. 217-218, Order entered February 19, 2021).

The peak and average ACOS, however, allocates distribution mains to classes based partially on contributions to peak day demand and partially on annual consumption (average demand). This methodology was accepted by the Commission in the Company's 2020 base rate case (Docket No. R-2020-3018835, p. 218, Order entered February 19, 2021).

Q. WHICH OF THE THREE ACOS STUDIES SPONSORED BY MR. JOHNSON DID THE COMPANY UTILIZE TO ALLOCATE THE PROPOSED REVENUE INCREASES?

A. Consistent with the Commission's Order from Columbia's 2020 base rate case, discussed above, the Company utilized the second ACOS study sponsored by Mr. Johnson, which is the peak and average study, presented on Columbia Exhibit No. 111, Schedule No. 2 to allocate the proposed revenue increases (Columbia St. No. 6, p. 4).

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSED USE OF THE PEAK AND AVERAGE METHODOLOGY TO ALLOCATE THE REVENUE INCREASES AMONG THE DIFFERENT CUSTOMER CLASSES IN THIS PROCEEDING?

A. Yes.

Q. DID THE COMPANY ALSO ELECT TO SHOW THE FLEX RATE CUSTOMERS UNDER THEIR OWN RATE CLASS IN THE COST OF SERVICE STUDY?

A. Yes. This is important so that the Commission can determine the cost to provide service to the flex and non-flex customers and the subsidy being provided by tariff rate customers. With this information, the Commission can establish fair and reasonable rates for all other non-flex customers in non-flex classes.

Q. DOES THE INCLUSION OF FLEX RATE CUSTOMERS NECESSARILY MEAN THAT THE ULTIMATE RELATIVE RATE OF RETURN GOAL IS DIFFERENT THAN 1.0?

A. Yes. Because the inclusion of flex rate customers shifts a portion of the revenue requirement that is unrecovered from the discounted rates to the other customer classes, the ultimate relative rate of return goal is different than 1.0. As shown on I&E Exhibit No. 3, Schedule 1, the actual relative rate of return goal is 1.13 rather than 1.0.

Q. WHAT DO YOU RECOMMEND CONCERNING FUTURE COLUMBIA BASE RATE CASES?

A. I recommend two things in future base rate cases. First, I recommend the Company continue to utilize the peak and average cost of service study to establish rates. Second, I recommend that the Company continue to classify flex rate customers as a separate class in future cost of service studies. The rationale for both of these recommendations is described above.

REVENUE ALLOCATION

Q. IS THE COMPANY'S PROPOSED REVENUE INCREASE ALLOCATION SHOWN ON COLUMBIA EXHIBIT NO. 111, SCHEDULE 2 REASONABLE?

A. No. While the Company's proposed allocation has the effect of moving the relative rates of return for each rate class towards equilibrium, as shown on Columbia Exhibit No. 111, Schedule 2, pages 2-3 and the table below, the final result is that the residential rate class is still providing a significant subsidy to the other rate classes.

Customer Class	Current Rates (Columbia Ex. No. 111, Sch. 2, p. 2)	Proposed Rates (Columbia Ex. No. 111, Sch. 2, p. 1)
RSS/RDS	1.30	1.27
SGS/DS-1	1.09	1.06
SGS/DS-2	1.09	1.05
SDS/LGSS	0.89	0.94
LDS/LGSS	0.27	0.40
MLDS	29.29	22.23
FLEX	(0.69)	(0.52)

Q. WHAT RELATIVE RATES OF RETURN UNDER CURRENT RATES HAS THE COMPANY REPORTED OVER THE COMPANY'S RECENT BASE RATE FILINGS?

A. The following table shows the relative rates of return for Columbia's various rate classes under current rates from the Company's current rate case, 2021 base rate case (Docket No. R-2021-3024296) and 2020 base rate case (R-2020-3018835) using the peak and average cost of service methodology.

Relative Rates of Return under Current Rates			
Customer Class	2022 Rate Case (R-2022-3031211) Columbia Ex. No. 111, Sch. 2, p. 2	2021 Rate Case (R-2021-3024296) Columbia Ex. No. 111, Sch. 2, p. 2	2020 Rate Case (R-2020-3018835) Columbia Ex. No. 111, Sch. 2, p. 2
RSS/RDS	1.30	1.26	1.29
SGS/DS-1	1.09	1.08	1.02
SGS/DS-2	1.09	1.14	1.19
SDS/LGSS	0.88	0.95	0.94
LDS/LGSS	0.27	0.17	0.08
MLDS	29.29	30.41	16.75
FLEX	(0.67)	(0.84)	(0.88)

Q. HAS THE RELATIVE RATES OF RETURN FOR THE VARIOUS RATE CLASSES MADE SIGNIFICANT MOVEMENT TOWARDS SYSTEM AVERAGE RATE OF RETURN?

A. No. As shown in the table above, only the SGS/DS-2, LDS/LGSS, and MLDS classes have made any movement towards the system average rate of return. It is clear, however, that the RSS/RDS and MLDS classes are providing a significant subsidy to the other rate classes. Additionally, from the time of the Company's 2021 base rate case to the current base rate case, the SDS/LGSS rate class has moved farther away from the system average rate of return.

Q. WHAT IS THE DOLLAR AMOUNT OF THE SUBSIDY BEING PROVIDED BY THE RSS/RDS CLASS?

A. The RSS/RDS is providing a subsidy of approximately $19 million to the SGS/DS-1, SGS/DS-2, SDS/LGSS, and LDS/LGSS classes. (I&E Exhibit No. 3, Schedule 1, line 17),

Q. HOW DID YOU DETERMINE THE SUBSIDY?

A. I determined the relative rate of return for each class, excluding the flex rate customers, must be 1.13 to achieve an overall relative rate of return of 1.0. Removing approximately $19 million from the RSS/RSD class lowers the relative rate of return for that class to 1.13 (I&E Ex. No. 3, Sch. 1, lines 17-20).

Q. WHAT DO YOU RECOMMEND REGARDING THE RSS/RDS SUBSIDY?

A. As I discuss further below, in order to remove the subsidy being provided by the RSS/RDS class, I recommend that the first $20 million of any scale back be applied to the RSS/RDS class.

Q. ARE YOU RECOMMENDING A REALLOCATION OF REVENUE FROM THE RSS/RDS CLASS TO THE SDS/LGSS CLASS?

A. Yes. As shown on I&E Exhibit No. 3, Schedule 2, I am recommending a reallocation of $600,000 from the RSS/RDS class to the SDS/LGSS class. This results in a relative rate of return for the SDS/LGSS class, after the $20 million first dollar relief for the RSS/RDS class of approximately 1.03.

Q. WHY ARE YOU RECOMMENDING A $600,000 REALLOCATION OF REVENUE FROM THE RSS/RDS CLASS TO THE SDS/LGSS CLASS?

A. As shown on the table above, the SDS/LGSS class is the only customer class that has had its relative rate of return move further away from the system average relative rate of return following recent base rate cases. This, along with its relative rate of return being below the system average relative rate of return shows that the SDS/LGSS was being subsidized by the RSS/RDS class and that subsidization was not being sufficiently reduced in this base rate case. My recommendation will ensure that this subsidy will be reduced as the SDS/LGSS class moves towards the system average relative rate of return, including the FLEX subsidy, of 1.13 as discussed above.

CUSTOMER COST ANALYSIS

Q. WHAT IS A CUSTOMER COST ANALYSIS AND HOW IS IT USED?

A. A customer cost analysis is a part of a COSS that is used to determine the appropriate fixed customer charges for the various classes and meter sizes. It includes customer costs only.

Q. WHY IS IT NECESSARY TO PERFORM A CUSTOMER COST ANALYSIS?

A. A fixed customer charge represents the revenue that the Company is guaranteed to receive each month, regardless of the level of usage. As acknowledged in the seventh edition of the American Water Works Association M1 Manual, there is a tradeoff between revenue stability from a high customer charge, and affordability and conservation from a low customer charge and higher usage rates.[2]

Q. WHAT IS A DIRECT CUSTOMER COST?

A. A direct customer cost is a cost that changes with the increase or decrease of a single customer.

Q. WHAT IS AN INDIRECT CUSTOMER COST?

A. An indirect customer cost is a customer related cost that does not change with the increase or decrease of a single customer. The Commission has allowed, in past instances, certain indirect customer costs to be included in a customer cost analysis and thus recovered in a customer charge. As an example, in previous cases, the Commission has allowed the indirect cost of Employee Pension and Benefits.

[2] AWWA Manual of Water Supply Practices M1 Principles of Water Rates, Fees, Charges, Seventh Edition. pp. 154-155.

Q. DID COLUMBIA PREPARE A CUSTOMER COST ANALYSIS TO SUPPORT THE PROPOSED CUSTOMER CHARGE INCREASES IN THIS PROCEEDING?

A. Yes. The Company prepared two customer cost analyses presented in Columbia Exhibit No. 111, Schedule 1, pages 16 and 26. The Company's first customer cost analyses allocates a portion of the cost of mains to customers. The Company's second customer cost analyses does not allocate any portion of the cost of mains to customers. The results of each customer cost analysis are presented in the following table:

Customer Class	Including Mains (Columbia Ex. No. 111, Sch. 2, p. 17, line 43)	Excluding Mains (Columbia Ex. No. 111, Sch. 2, p. 26, line 39)
RSS/RDS	$62.98	$25.47
SGS/DS-1	$73.26	$28.36
SGS/DS-2	$183.16	$52.76
SDS/LGSS	$1,066.31	$267.11
LDS/LGSS	$7,062.09	$1,403.41
MLDS	$648.65	$524.02
FLEX	$22,717.98	$3,136.45

Q. HOW DID COLUMBIA DETERMINE THE FIXED MONTHLY COSTS BY CUSTOMER CLASS ABOVE?

A. According to Columbia witness Johnson, the Company designed its rates to include the principles of efficiency, simplicity, continuity, fairness, and earnings stability (Columbia St. No. 6, p. 16).

Q. DO YOU BELIEVE THAT THE COMPANY'S CUSTOMER COST ANALYSIS THAT INCLUDES THE COST OF MAINS SHOULD BE CONSIDERED?

A. No. The Commission has established in Columbia's 2020 base rate case that mains are not properly included as a customer cost (Docket No. R-2020-3018835, p. 218, Order entered February 19, 2021). Therefore, the Company's customer cost analysis that includes the cost of mains should not be utilized in this proceeding.

<u>CUSTOMER CHARGES</u>

Q. WHAT CUSTOMER CHARGES IS THE COMPANY PROPOSING FOR EACH RATE CLASS?

A. The customer charges for each rate class that received a proposed increase is shown in the table below. (Columbia No. 103, Sch. No. 8, pp. 5-9).

Rate Schedule (Therms, annually)	Present Rate	Change	Proposed Rate	Percent Increase
RS, RDS, RCC				
All Usage	$16.75	$8.72	$25.47	52.1%
SGSS1, SCD1, SGDS1				
≤6,440	$29.92	$4.31	$34.23	14.4%
SGSS2, SCD2, SGDS2				
>6,440 to ≤64,440	$57.00	$8.36	$65.36	14.7%
SDS/LGSS				
>64,400 to ≤110,000	$265.00	$54.30	$319.30	20.5%
>110,000 to ≤540,000	$1,050.11	$215.18	$1,265.29	20.5%
LDS				
>540,000 to ≤1,074,000	$2,673.99	$587.29	$3,261.28	22.0%
>1,074,000 to ≤3,400,000	$4,159.15	$913.47	$5,072.62	22.0%
>3,400,000 to ≤7,500,000	$8,020.79	$1,761.61	$9,782.40	22.0%
>7,500,000	$11,882.42	$2,609.74	$14,492.16	22.0%

Q. ARE YOU RECOMMENDING ADJUSTMENTS TO ANY OF THE COMPANY'S PROPOSED CUSTOMER CHARGES?

A. Yes. Based on the customer cost analysis that does not include the cost of mains, as described above, the customer charges proposed for the SGS1, SGS2, and SDS/LGSS classes are too high. I am not recommending an adjustment to the proposed customer charges for the LDS customers because higher usage customers generally favor a higher fixed charge and lower usage charges.

Furthermore, while I recognize that the Company's proposed residential customer charge is supported by the customer cost analysis, I also recognize that the proposed 52.1% increase described above is excessive.

Q. HAS THE COMMISSION PREVIOUSLY DETERMINED THAT RATE SHOCK AND GRADUALISM DO NOT APPLY TO THE CUSTOMER CHARGE INDIVIDUALLY?

A. Yes. The Commission has stated in UGI Electric at Docket No. R-2017-2640058 (Order entered October 25, 2018, pp. 173-174), that rate shock and gradualism do not apply to the customer charge individually. However, on page 175 of that same case, the Commission determined that in spite of the higher customer cost determination in the cost of service study, the customer charges should be included in the scale back. Additionally, due to the economic factors of increased prices and high inflation currently affecting customers, it is not reasonable to limit customers' ability to affect their bill by allocating so much of the residential revenue increase to the customer charge. Therefore, I recommend that reduction in the RSS/RDS revenue increase by the first dollar relief in the scale back, described below, be applied solely to the residential customer charge and that the customer charge be included in any further scale back of rates. A reduction of approximately $20 million applied solely to the customer charge would result in a reduction to the Company's proposed customer charge of approximately $4.86 ($20,000,000 / 4,116,692) from $25.47 to $20.61.

Q. WHAT CUSTOMER CHARGES ARE YOU RECOMMENDING FOR THE SGS1, SGS2, AND SDS/LGSS CLASSES?

A. I am recommending the customer charges for the SGS1, SGS2, and SDS/LGSS classes be adjusted to be consistent with the customer cost analysis as follows:

Rate Schedule (Therms, annually)	Customer Cost Analysis	Company Present Rate	Company Proposed Rate	Change	I&E Proposed Rate
	SGSS1, SCD1, SGDS1				
≤6,440	$28.36	$29.92	$34.23	($5.87)	$28.36
	SGSS2, SCD2, SGDS2				
>6,440 to ≤64,440	$57.00	$57.00	$65.36	($8.36)	$57.00
	SDS/LGSS				
>64,400 to ≤110,000	$267.11	$265.00	$319.30	($52.19)	$267.11
>110,000 to ≤540,000	$1,403.41	$1,050.11	$1,265.29	$0.00	$1,265.29

<u>CUSTOMER CHARGE - MISCELLANEOUS</u>

Q. ARE THERE ANY OTHER ISSUES REGARDING THE CUSTOMER CHARGE THAT YOU WOULD LIKE TO DISCUSS?

A. Yes. In its response to I&E-RS-16-D and I&E-RS-17-D, attached as I&E Exhibit No 3, Schedule 3, the Company stated that it does not prorate the customer charge for customers who either start service or end service prior to the end of the billing cycle. In other words, if a customer discontinues service at the beginning of the billing month, the customer charge on the final bill the customer pays is based upon a full month.

Q. WHAT REASON DID THE COMPANY PROVIDE FOR NOT PRORATING THE CUSTOMER CHARGE FOR CUSTOMERS WHO START OR END SERVICE PRIOR TO THE END OF THE BILLING PERIOD?

A. As shown on I&E Exhibit No. 3, Schedule 3, the Company pointed to the fixed costs for meter reading, billing, installing and replacing pipelines, meters, and account servicing that the customer charge is designed to recover. It further claimed that costs recovered through the monthly customer charge do not vary based on whether the customer receives service for the entire billing period or connects or disconnects service during the billing period and that it would not be appropriate to prorate the customer charge for customers who do not take service from Columbia for the entire billing period.

Q. WHAT DO YOU RECOMMEND REGARDING THE PRORATION OF COLUMBIA'S CUSTOMER CHARGE?

A. I recommend that Columbia begin prorating its customer charge for customers who begin or end service prior to the end of the billing period and adjust its tariff to reflect this practice.

Q. WHY DO YOU RECOMMEND COLUMBIA PRORATE ITS CUSTOMER CHARGE FOR CUSTOMERS WHO START SERVICE OR LEAVE SERVICE PRIOR TO THE END OF THE BILLING PERIOD?

A. This recommendation will rectify the current Company policy of charging customers for service not received. As described above, when a customer leaves prior to the end of the billing period, Columbia collects the full customer charge from that customer even though that customer will no longer be a customer for the entire billing period. Columbia's explanation that the customer charge is designed to recover certain costs in a month whether or not a customer receives service for the entire month is without merit. It is simply not reasonable to charge customers for services that they do not receive.

Q. ARE YOU AWARE OF ANY OTHER PENNSYLVANIA UTILITIES THAT PRORATE CUSTOMER CHARGES FOR CUSTOMERS WHO BEGIN OR END SERVICE PRIOR TO THE END OF THE MONTH?

A. Yes. Both Citizens' Electric Company of Lewisburg (I&E Ex. No. 3, Sch. 4) and PPL Electric Utilities, Inc. (I&E Ex. No. 3, Sch. 5) include a provision in its tariff regarding the proration of customer charges.

SCALE BACK OF RATES

Q. HOW DID THE COMPANY ALLOCATE THE $82,151,953 TOTAL INCREASE TO THE VARIOUS CLASSES?

A. The Company proposed to allocate the rate increase to the various rate classes as follows: RSS/RDS approximately $56.4 million or 9.4%; SGS/DS-1 approximately $6.9 million or 9.4%; SGS/DS-2 approximately $7.3 million or 9.7%; SDS/LGSS approximately $6.2 million or 17.3%; LDS/LGSS approximately $5.3 million or 21.7%; and minimal changes to the MLDS and FLEX classes (I&E Ex. No. 3, Sch. 6, p. 1, lines 15-16).

Q. WHAT SCALE BACK METHODOLOGY DO YOU RECOMMEND IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. If the Commission grants less than the Company's requested increase, I recommend that the first $20,000,000 reduction be applied to the RSS/RSD class customer charge (I&E Ex, No. 3, Sch. 6, p. 2, line 13). Any remaining reduction should be applied on a proportional basis to the percentage increases shown on I&E Ex. No. 3, Sch. 6, p. 2, line 16, except for the SDS/LGSS and LDS/LDSS class.

Q. WHY DO YOU RECOMMEND THE FIRST $20 MILLION OF A SCALE BACK BE APPLIED TO THE RSS/RDS CLASS?

A. As I discussed above, under the Company's proposed revenue allocation, the residential class is providing an approximately $20 million subsidy to the other rate classes. Therefore, it is reasonable to remove that subsidy prior to any further scale back of rates.

Q. WHY DO YOU RECOMMEND THAT THE LDS/LGSS CLASS NOT RECEIVE ANY SCALE BACK?

A. As shown on Columbia Exhibit 111, Schedule 2, p. 2, the LDS/LGSS class has a relative rate of return under proposed rates of 0.4, which is significantly under 1.13. Therefore, this rate class should not receive any scale back of rates in order to move its relative rate of return towards 1.13 (I&E Ex. No. 3, Sch. 2, column H).

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

ETHAN H. CLINE

PROFESSIONAL EXPERIENCE AND EDUCATION

EXPERIENCE:

03/2009 - Present
Bureau of Investigation and Enforcement, Pennsylvania Public Utility Commission - Harrisburg, Pennsylvania

Fixed Utility Valuation Engineer – Assists in the performance of studies and analyses of the engineering-related areas including valuation, depreciation, cost of service, quality and reliability of service as they apply to fixed utilities. Assists in reviewing, comparing and performing analyses in specific areas of valuation engineering and rate structure including valuation concepts, original cost, rate base, fixed capital costs, inventory processing, excess capacity, cost of service, and rate design.

06/2008 – 09/2008
Akens Engineering, Inc. - Shiremanstown, Pennsylvania

Civil Engineer – Responsible, primarily, for assisting engineers and surveyors in the planning and design of residential development projects

10/2007 – 05/2008
J. Michael Brill and Associates - Mechanicsburg, Pennsylvania

Design Technician – Responsible, primarily, for assisting engineers in the permit application process for commercial development projects.

01/2006 – 10/2007
CABE Associates, Inc. - Dover, Delaware

Civil Engineer – Responsible, primarily, for assisting engineers in performing technical reviews of the sewer and sanitary sewer systems of Sussex County, Delaware residential development projects.

EDUCATION:

Pennsylvania State University, State College, Pennsylvania
Bachelor of Science; Major in Civil Engineering, 2005

- Attended NARUC Rate School, Clearwater, FL
- Attended Society of Depreciation Professionals Annual Conference and Training

TESTIMONY SUBMITTED:

I have testified and/or submitted testimony in the following proceedings:

1. Clean Treatment Sewage Company, Docket No. R-2009-2121928
2. Pennsylvania Utility Company – Water Division, Docket No. R-2009-2103937
3. Pennsylvania Utility Company – Sewer Division, Docket No. R-2009-2103980
4. UGI Central Penn Gas, Inc., 1307(f) proceeding, Docket No. R-2010-2172922
5. PAWC Clarion Wastewater Operations, Docket No. R-2010-2166208
6. PAWC Claysville Wastewater Operations, Docket No. R-2010-2166210
7. Citizens' Electric Company of Lewisburg, Pa, Docket No. R-2010-2172665
8. City of Lancaster – Bureau of Water, Docket No. R-2010-2179103
9. Peoples Natural Gas Company LLC, Docket No. R-2010-2201702
10. UGI Central Penn Gas, Inc., Docket No. R-2010-2214415
11. Pennsylvania-American Water Company, Docket No. R-2011-2232243
12. Pentex Pipeline Company, Docket No. A-2011-2230314
13. Peregrine Keystone Gas Pipeline, LLC, Docket No. A-2010-2200201
14. Philadelphia Gas Works 1307(f), Docket No. R-2012-2286447
15. Peoples Natural Gas Company LLC, Docket No. R-2012-2285985
16. Equitable Gas Company, Docket Nos. R-2012-2312577, G-2012-2312597
17. City of Lancaster – Sewer Fund, Docket No. R-2012-2310366
18. Peoples TWP, LLC 1307(f), Docket No. R-2013-2341604
19. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2013-2361763
20. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2013-2361764
21. Joint Application, Docket Nos. A-2013-2353647, A-2013-2353649, A-2013-2353651
22. City of Dubois – Bureau of Water, Docket No. R-2013-2350509
23. The Columbia Water Company, Docket No. R-2013-2360798
24. Pennsylvania American Water Company, Docket No. R-2013-2355276
25. Generic Investigation Regarding Gas-on-Gas Competition, Docket Nos. P-2011-227868, I-2012-2320323
26. Philadelphia Gas Works 1307(f), Docket No. R-2014-2404355
27. Pike County Light and Power Company (Gas), Docket No. R-2013-2397353
28. Pike County Light and Power Company (Electric), Docket No. R-2013-2397237
29. Peoples Natural Gas Company LLC 1307(f), Docket No. R-2014-2403939
30. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2014-2420273
31. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2014-2420276
32. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2014-2420279
33. Emporium Water Company, Docket No. R-2014-2402324
34. Borough of Hanover – Hanover Municipal Water, Docket No. R-2014-2428304
35. Philadelphia Gas Works 1307(f), Docket No. R-2015-2465656
36. Peoples Natural Gas Company LLC 1307(f), Docket No. R-2015-2465172
37. Peoples Natural Gas Company – Equitable Division 1307(f), Docket No. R-2015-2465181
38. PPL Electric Utilities Corporation, Docket No. R-2015-2469275
39. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2015-2480934

40. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2015-2480937
41. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2015-2480950
42. UGI Utilities, Inc. – Gas Division, Docket No. R-2015-2518438
43. Joint Application of Pennsylvania American Water, et al., Docket No. A-2016-2537209
44. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2016-2543309
45. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2016-2543311
46. City of Dubois – Company, Docket No. R-2016-2554150
47. UGI Penn Natural Gas, Inc., Docket No. R-2016-2580030
48. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2017-2602627
49. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2017-2602633
50. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2017-2602638
51. Application of Pennsylvania American Water Company Acquisition of the Municipal Authority of the City of McKeesport, Docket No. A-2017-2606103
52. Pennsylvania American Water Company, Docket No. R-2017-2595853
53. Pennsylvania American Water Company Lead Line Petition, Docket No. P-2017-2606100
54. UGI Utilities, Inc. – Electric Division, Docket No. R-2017-2640058
55. Peoples Natural Gas Company, LLC – Peoples and Equitable Division 1307(f), Docket Nos. R-2018-2645278 & R-2018-3000236
56. Peoples Gas Company, LLC 1307(f), Docket No. R-2018-2645296
57. Columbia Gas of Pennsylvania, Inc., Docket No. R-2018-2647577
58. Duquesne Light Company, Docket No. R-2018-3000124
59. Suez Water Pennsylvania, Inc., Docket No. R-2018-3000834
60. Application of Pennsylvania American Water Company Acquisition of the Municipal Authority of the Township of Sadsbury, Docket No. A-2018-3002437
61. The York Water Company, Docket No. R-2018-3000006
62. Application of SUEZ Water Pennsylvania, Inc. Acquisition of the Water and Wastewater Assets of Mahoning Township, Docket Nos. A-2018-3003517 and A-2018-3003519
63. Pittsburgh Water and Sewer Authority, Docket Nos. R-2018-3002645 and R-2018-3002647
64. Joint Application of Aqua America, Inc. et al., Acquisition of Peoples Natural Gas Company LLC, et al., Docket Nos. A-2018-3006061, A-2018-3006062, and A-2018-3006063
65. Implementation of Chapter 32 of the Public Utility Code Regarding Pittsburgh Water and Sewer Authority, Docket Nos. M-2018-2640802 and M-2018-2640803
66. Philadelphia Gas Works 1307(f), Docket No. R-2019-3007636
67. People Natural Gas Company, LLC, Docket No. R-2018-3006818
68. Application of Pennsylvania American Water Company Acquisition of the Steelton Borough Authority, Docket No. A-2019-3006880
69. Application of Aqua America, Inc. et al., Acquisition of the Wastewater System Assets of the Township of Cheltenham, Docket No. A-2019-3006880
70. Philadelphia Gas Works, Docket No. R-2019-3009016
71. Wellsboro Electric Company, Docket No. R-2019-3008208
72. Valley Energy, Inc., Docket No. R-2019-3008209
73. Citizens' Electric Company of Lewisburg, Pa, Docket Non. R-2019-3008212

74. Application of Aqua America, Inc. et al., Acquisition of the Wastewater System Assets of the East Norriton Township, Docket No. A-2019-3009052
75. Peoples Natural Gas Company, LLC 1307(f), Docket No. R-2020-3017850
76. Peoples Gas Company, LLC 1307(f), Docket No. R-2020-3017846
77. Philadelphia Gas Works, Docket No. R-2020-3017206
78. Pittsburgh Water and Sewer Authority, Docket Nos. R-2020-3017951 et al.
79. Columbia Gas of Pennsylvania, Docket No. R-2020-3018835
80. Pennsylvania America Water Company, Docket Nos. R-2020-3019369 and R-2020-3019371
81. PECO Energy Company – Gas Division, Docket No. R-2020-3019829
82. PGW 1307(f), Docket No. R-2021-3023970
83. Peoples Natural Gas Company, LLC 1307(f), Docket No. R-2021-3023965
84. Peoples Gas Company, LLC 1307(f), Docket No. R-2021-3023967
85. UGI Utilities, Inc. – Electric Division, Docket No. R-2021-3023618
86. Columbia Gas of Pennsylvania, Inc., Docket No. R-2021-3024926
87. Duquesne Light Company, Docket No. R-2021-3024750
88. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2021-3025652
89. Pittsburgh Water and Sewer Authority, Docket Nos. R-2021-3024773 et al.
90. Application of Aqua America Wastewater, Inc. et al., Acquisition of the Wastewater System Assets of Lower Makefield Township, Docket No. A-2021-3024267
91. Aqua Pennsylvania Water, Inc. and Aqua Pennsylvania Wastewater, Inc., Docket Nos. R-2021-3027385 and R-2021-3027386
92. Application of Pennsylvania-American Water Company for Acquisition of the Wastewater Collection and Treatment System Assets of the York City Sewer Authority, Docket No. A-2021-3024681
93. City of Lancaster – Bureau of Water, Docket No. R-2021-3026682
94. Application of Aqua America Wastewater, Inc. et al., Acquisition of the Wastewater System Assets of East Whiteland Township, Docket No. A-2021-30246132
95. UGI Utilities, Inc. – Gas Division, Docket No. R-2021-3030218
96. Peoples Natural Gas Company, LLC 1307(f), Docket No. R-2022-3030661

I&E Exhibit No. 3
Witness: Ethan H. Cline

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Exhibit to Accompany

the

Direct Testimony

of

Ethan H. Cline

Bureau of Investigation and Enforcement

Concerning:

Fully Projected Future Test Year Reporting Requirements
Revenue Normalization Adjustment
Cost of Service Study
Scale Back of Rates

I&E Exhibit No. 3
Schedule 1

COLUMBIA GAS OF PENNSYLVANIA, INC.
RATE OF RETURN BY CLASS SHOWING UNITIZED PROPOSED REVENUE
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2023

ALLOCATED COST OF SERVICE — **111, SCHEDULE 2**
PEAK & AVERAGE — **PAGE 1 OF 13**
WITNESS: K. L. Johnson

LINE NO.	ACCOUNT TITLE (A)	ALLOC FACTOR (B)	TOTAL COMPANY (C) $	RSS/RDS (D) $	SGS/DS-1 (E) $	SGS/DS-2 (F) $	SDS/LGSS (G) $	LDS/LGSS (H) $	MLDS (I) $	FLEX (J) $
1	ORIGINAL PROPOSED REVENUE [ORIGINAL FILING]		$896,657,347	$655,435,862	$80,515,598	$83,152,274	$41,830,544	$29,467,615	$1,971,082	$4,284,374
2	**First Dollar Releif**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
3	TOTAL REVENUE [PAGE 6]		$896,657,348	$655,435,862	$80,515,598	$83,152,274	$41,830,544	$29,467,615	$1,971,082	$4,284,374
4	PRODUCTS PURCHASED [PAGE 7]		$235,166,198	$177,821,427	$25,361,618	$25,621,440	$5,559,491	$279,454	$522,768	$0
5	OPERATING & MAINTENANCE EXPENSES [PAGES 7 & 8]		$246,645,581	$176,713,417	$17,017,656	$16,341,371	$10,956,214	$12,952,290	$36,838	$12,627,795
6	DEPRECIATION & AMORTIZATION [PAGE 5]		$116,724,231	$71,651,290	$10,206,441	$10,592,372	$7,089,435	$8,548,775	$31,212	$8,604,707
7	TAXES OTHER THAN INCOME [PAGE 9]		$3,580,973	$2,329,649	$306,616	$288,743	$194,417	$231,941	$247	$229,360
8	TOTAL EXPENSES & TAXES OTHER THAN INCOME		$602,116,983	$428,515,783	$52,892,331	$52,843,926	$23,799,556	$22,012,461	$591,066	$21,461,861
9	OPERATING INCOME BEFORE TAXES		$294,540,365	$226,920,079	$27,623,267	$30,308,348	$18,030,988	$7,455,154	$1,380,016	($17,177,487)
10	INCOME TAXES		$55,731,512	$48,053,298	$5,395,309	$5,953,632	$3,327,844	($125,619)	$392,661	($7,265,612)
11	INVESTMENT TAX CREDIT	12	($221,354)	($132,184)	($19,499)	($21,051)	($14,138)	($17,133)	($47)	($17,303)
12	NET INCOME TAXES		$55,510,158	$47,921,115	$5,375,810	$5,932,581	$3,313,706	($142,752)	$392,614	($7,282,915)
13	OPERATING INCOME		$239,030,207	$178,998,965	$22,247,457	$24,375,767	$14,717,282	$7,597,906	$987,402	($9,894,572)
14	RATE BASE [PAGE 10]		$2,958,295,013	$1,748,524,511	$259,742,831	$287,859,226	$192,761,937	$233,132,653	$549,766	$235,724,089
15	RATE OF RETURN EARNED ON RATE BASE		8.080%	10.237%	8.565%	8.468%	7.635%	3.259%	179.604%	-4.198%
16	UNITIZED RETURN		1.000	1.267	1.060	1.048	0.945	0.403	22.228	(0.520)
17	Subsidy		$937,140	($19,128,860)	$1,500,000	$1,942,000	$2,907,000	$13,717,000	$0	$0
18	Total Operation Revenue		$239,967,347	$159,870,105	$23,747,457	$26,317,767	$17,624,282	$21,314,906	$987,402	($9,894,572)
19	RATE OF RETURN EARNED ON RATE BASE		8.112%	9.143%	9.143%	9.143%	9.143%	9.143%	179.604%	-4.198%
20	**UNITIZED RETURN**		**1.00**	**1.13**	**1.13**	**1.13**	**1.13**	**1.13**	**22.23**	**-0.52**

COLUMBIA GAS OF PA INC.
RATE OF RETURN BY CLASS AFTER FIRST DOLLAR RELIEF
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2023

ALLOCATED COST OF SERVICE STUDY **Based Upon:** Exhibit 111 **Schedule 2**
PEAK AND AVERAGE

LINE NO.	ACCOUNT TITLE (A)	ALLOC FACTOR (B)	TOTAL COMPANY (C)	RSS/RDS (D)	SGS/DS-1 (E)	SGS/DS-2 (F)	SDS/LGSS (G)	LDS/LGSS (H)	MDLS (I)	FLEX (J)
1	ORIGINAL PROPOSED REVENUE [ORIGINAL FILING]		$896,657,348	$655,435,862	$80,515,598	$83,152,274	$41,830,544	$29,467,615	$1,971,082	$4,284,374
2	**Scale Back**		**-$20,000,000**	**-$20,600,000**	**$0**	**$0**	**$600,000**	**$0**	**$0**	**$0**
3	I&E Adjusted TOTAL REVENUE [PAGE 6]		$876,657,348	$634,835,861	$80,515,598	$83,152,274	$42,430,544	$29,467,615	$1,971,082	$4,284,374
4	PRODUCTS PURCHASED [PAGE 7]		$235,166,198	$177,821,427	$25,361,618	$25,621,440	$5,559,491	$279,454	$522,768	$0
5	OPERATING & MAINTENANCE EXPENSES [PAGES 7 & 8]		$246,249,581	$176,317,417	$17,017,656	$16,341,371	$10,956,214	$12,952,290	$36,838	$12,627,795
6	DEPRECIATION & AMORTIZATION [PAGE 5]		$116,724,232	$71,651,290	$10,206,441	$10,592,372	$7,089,435	$8,548,775	$31,212	$8,604,707
7	TAXES OTHER THAN INCOME [PAGE 9]		$3,580,973	$2,329,649	$306,616	$288,743	$194,417	$231,941	$247	$229,360
8	TOTAL EXPENSES & TAXES OTHER THAN INCOME		$601,720,984	$428,119,783	$52,892,331	$52,843,926	$23,799,557	$22,012,460	$591,065	$21,461,862
9	OPERATING INCOME BEFORE TAXES		$274,936,364	$206,716,078	$27,623,267	$30,308,348	$18,630,987	$7,455,155	$1,380,017	-$17,177,488
10	INCOME TAXES		$50,025,554	$42,176,162	$5,395,309	$5,953,632	$3,499,022	-$125,619	$392,660	-$7,265,612
11	INVESTMENT TAX CREDITS	12	-$221,354	-$132,183	-$19,499	-$21,051	-$14,138	-$17,133	-$47	-$17,303
12	NET INCOME TAXES		$49,804,200	$42,043,979	$5,375,810	$5,932,581	$3,484,884	-$142,752	$392,613	-$7,282,915
13	OPERATING INCOME		$225,132,164	$164,672,099	$22,247,457	$24,375,767	$15,146,103	$7,597,907	$987,404	-$9,894,573
14	RATE BASE [PAGE 10]		$2,958,295,113	$1,748,524,511	$259,742,931	$287,859,226	$192,761,937	$233,132,653	$549,766	$235,724,089
15	RATE OF RETURN EARNED ON RATE BASE		7.610%	9.418%	8.565%	8.468%	7.857%	3.259%	179.604%	-4.198%
16	UNITIZED RETURN		1.00000	1.23758	1.12549	1.11275	1.03246	0.42825	23.60105	(0.55164)

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RS

Question No. I & E RS-016-D:

When a customer requests a discontinuance of service, explain if the Company pro-rates the monthly customer charge. If not, explain why.

Response:

If the customer requests a disconnection of service in the middle of a billing period, the final customer bill will reflect the full monthly customer charge. The customer charge covers Columbia's fixed costs for meter reading, billing, installing and replacing pipelines, meters and account servicing. The fixed costs recovered through the monthly customer charge do not vary based on whether the customer receives service for the entire month or disconnects service during the month. Therefore, it would not be appropriate to pro-rate the monthly customer charge for customers who disconnect service during the month.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RS

Question No. I & E RS-017-D:

When a customer requests a connection or reconnection of service, explain if the Company pro-rates the monthly customer charge. If not, explain why.

Response:

If the customer requests a connection of service in the middle of a billing period, the first customer bill will reflect the full monthly customer charge. The customer charge covers Columbia's fixed costs for meter reading, billing, installing and replacing pipelines, meters and account servicing. The fixed costs recovered through the monthly customer charge do not vary based on whether the customer receives service for the entire month or requests service connection during the month. Therefore, it would not be appropriate to pro-rate the monthly customer charge for customers who request service connection during the month.

RULES AND REGULATIONS (cont'd)

11. CAPACITY OF COMPANY'S SERVICE FACILITIES

The service connections, transformers, meters and appliances have a definite limited capacity and no addition to the equipment or load of Customer connected shall be made without the previous consent of Company. A violation of this Rule makes Customer liable for damages resulting therefrom.

12. BILLS - RATES

(a) Bills will be rendered monthly for service supplied during the preceding billing period. Bills will separately state the charges for regulated services, non-regulated services, and Default Service (if any). (C)
Normal billing is for a period of approximately 30 days. Bills will be computed on the basis of monthly rates, which will be prorated for initial or final bills which are for periods more or less than a month. Bills as rendered are due and payable at the office of the Company during business hours and shall be considered as received by the Customer when left at or mailed to the place where service is received or such other place as shall have been mutually agreed upon.

(b) The Company reads meters monthly unless conditions beyond control make it impossible to gain access. The Company may render an appropriately marked estimated bill when a meter reading is not obtained. Estimated bills shall be paid in accordance with the provisions of this Rule and the applicable rate schedule.

(c) If unusual circumstances occur during a period for which an estimated bill has been issued and are brought to the Company's attention an appropriate adjustment will be made by Company.

(d) If the bill is not paid within twenty days from the due date thereof as stated in the bill, Customer shall be considered delinquent in payment, and Company may, at any time thereafter prior to the payment thereof, after serving proper notice, discontinue service for non-payment of regulated and PLR service charges. Partial payments will be applied to the bill consistent according to the requirements of subsection (g) below. Failure to receive the bill shall not entitle Customer to relief from payment of the gross bill if not paid within twenty days.

(e) In case the bill is for service to the United States of America, or the Commonwealth of Pennsylvania or any of their Departments or Institutions, the net rate period shall be thirty days.

(C) Indicates Change

RULES FOR ELECTRIC SERVICE **(C)**

RULE 9 - BILLING AND PAYMENT FOR SERVICE

A. BILLING PERIOD

(1) Bills for service supplied during the preceding billing period, other than initial and final bills, are rendered monthly. Normal billing is for a period of 26-35 days and is based on meter readings taken by Company at the end of each period. **(C)**

(2) When a billing period is more or less than a month, such as for initial or final bills, the monthly rate is prorated.

B. ESTIMATED BILLS

(1) Company may render an appropriately marked estimated bill when a meter reading is not obtained. Company may read meters for longer than monthly intervals and may under such circumstances render estimated interim bills for normal billing periods.

(2) Estimated bills shall be paid in accordance with the provisions of this rule and the applicable rate schedule. If unusual circumstances occur during a period for which an estimated bill has been issued and are brought to the Company's attention, an appropriate adjustment will be made by Company.

(3) Upon request, the Company will supply any customer with a billing schedule and a card from upon which he may record his meter readings at the end of each normal billing period which otherwise would be estimated. If such card is received by the Company by the date specified on the schedule, except where it is apparent to the Company that the information is erroneous, the bill for such period will be computed from the meter reading shown on the card.

(4) The Company will take reasonable measures to obtain meter readings, however, the Company may prepare an estimated bill for any customer if extreme weather conditions, emergencies, equipment failure, work stoppages, or other circumstances prevent actual meter readings or if Company personnel are unable to gain access to obtain an actual meter reading.

C. DUE DATE

The due date specified on the bill is not less than 15 days from the date bill is mailed except that for service under, or billed in conjunction with, residential rate schedules the due date is not less than 20 days from the date bill is mailed and for service to federal, state or local governments or to any governmental department, institution or authority, the due date is not less than 30 days from the date bill is mailed via the U.S. Postal Service or sent electronically. **(C)**

(C)

(Continued)

Columbia Gas of Pennsylvania
REVENUE SUMMARY
R-2022-3031211
Present Rate Revenue

LINE NO.	Tariff Revenue (A)	ALLOC FACTOR (B)	TOTAL (C)	RSS/RDS (D)	SGS/DS-1 (E)	SGS/DS-2 (F)	SDS/LGSS (G)	LDS/LGSS (H)	MLDS (I)	FLEX (J)
1	Sales Customers		$633,776,200	$498,917,528	$56,551,402	$44,093,290	$10,535,087	$23,678,893		
2	Choice Customers		$107,668,516	$55,749,563	$14,709,366	$11,609,638	$25,599,949			
3	Cap Customers		$43,543,597	$43,543,597						
4	Choice Customers		$22,258,132		$2,236,119	$20,022,013	-$507,826	$507,826	$0	
5	MDLS-1		$87,747						$87,747	
6	MDLS-2		$1,319,579						$1,319,579	
7	Negotiated		$4,827,192						$561,302	$4,265,890
8	TOTAL Tariff REVENUE		$813,480,963	$598,210,688	$73,496,887	$75,724,941	$35,627,210	$24,186,719	$1,968,628	$4,265,890
	Other Revenue		**TOTAL**	**RSS/RDS**	**SGS/DS-1**	**SGS/DS-2**	**SDS/LGSS**	**LDS/LGSS**	**MLDS**	**FLEX**
9	Forfeited Discounts		$915,981	$672,302	$83,199	$85,717	$40,331	$27,379	$2,226	$4,827
10	Miscellaneous Revenue		$98,442	$90,139	$7,027	$1,150	$101	$17	$3	$5
11	Other		$10,055	$9,207	$718	$117	$10	$2	$0	$1
12	Total Other		$1,024,478	$771,648	$90,944	$86,984	$40,442	$27,398	$2,229	$4,833
13	First Step Scale Back		$0	$0	$0	$0	$0	$0	$0	$0
14	TOTAL REVENUE		$814,505,441	$598,982,336	$73,587,831	$75,811,925	$35,667,652	$24,214,117	$1,970,857	$4,270,723
15	PROPOSED INCREASE		$82,151,906	$56,453,526	$6,927,767	$7,340,349	$6,162,891	$5,253,498	$224	$13,651
16	PERCENT INCREASE		10.09%	9.42%	9.41%	9.68%	17.28%	21.70%	0.01%	0.32%

Columbia Gas of Pennsylvania
REVENUE SUMMARY
R-2022-3031211
$20.0 Million Scale Back

LINE NO.	Tariff Revenue (A)	ALLOC FACTOR (B)	TOTAL (C)	RSS/RDS (D)	SGS/DS-1 (E)	SGS/DS-2 (F)	SDS/LGSS (G)	LDS/LGSS (H)	MLDS (I)	FLEX (J)
1	Sales Customers		$697,766,503	$548,563,133	$61,432,516	$47,393,001	$11,498,257	$28,879,596		
2	Choice Customers		$122,682,650	$62,489,666	$16,441,164	$12,906,184	$30,845,636			
3	Cap Customers		$43,543,597	$43,543,597						
4	Choice Customers		$25,300,040		$2,542,582	$22,757,458	-$557,860	$557,860	$0	
5	MDLS-1		$87,747						$87,747	
6	MDLS-2		$1,319,579						$1,319,579	
7	Negotiated		$4,840,356						$561,302	$4,279,054
8	TOTAL Tariff REVENUE		$895,540,472	$654,596,396	$80,416,262	$83,056,643	$41,786,033	$29,437,456	$1,968,628	$4,279,054
	Other Revenue		**TOTAL**	**RSS/RDS**	**SGS/DS-1**	**SGS/DS-2**	**SDS/LGSS**	**LDS/LGSS**	**MLDS**	**FLEX**
9	Forfeited Discounts		$1,008,378	$740,120	$91,591	$94,364	$44,399	$30,140	$2,450	$5,314
10	Miscellaneous Revenue		$98,442	$90,139	$7,027	$1,150	$101	$17	$3	$5
11	Other		$10,055	$9,207	$718	$117	$10	$2	$0	$1
12	Total Other		$1,116,875	$839,466	$99,336	$95,631	$44,510	$30,159	$2,453	$5,320
13	First Step Scale Back		-$20,000,000	-$20,600,000	$0	$0	$600,000	$0	$0	$0
14	TOTAL SCALED BACK REVENUE		$876,657,348	$634,835,862	$80,515,598	$83,152,274	$42,430,543	$29,467,615	$1,971,081	$4,284,374
15	PRESENT RATE REVENUE		$814,505,441	$598,982,336	$73,587,831	$75,811,925	$35,667,652	$24,214,117	$1,970,857	$4,270,723
16	INCREASE AFTER SCALE BACK		$62,151,907	$35,853,526	$6,927,767	$7,340,349	$6,762,891	$5,253,498	$224	$13,651
17	PERCENT INCREASE		7.1%	6.0%	9.4%	9.7%	19.0%	21.7%	0.0%	0.3%

I&E Statement No. 4
Witness: Tyler Merritt

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Direct Testimony

of

Tyler Merritt

Bureau of Investigation & Enforcement

Concerning:

DISTRIBUTION INTEGRITY MANAGEMENT PLAN
PIPELINE REPLACEMENT
LONG TERM INFRASTRUCTURE IMPROVEMENT PLAN

TABLE OF CONTENTS

INTRODUCTION

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

A. My name is Tyler Merritt. I am a Fixed Utility Valuation Engineer in the Pipeline Safety Division of the Pennsylvania Public Utility Commission's ("Commission") Bureau of Investigation and Enforcement ("I&E"). My business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT EXPERIENCE?

A. I attended The Pennsylvania State University and earned a Bachelor of Science Degree in Petroleum and Natural Gas Engineering in 2017. I joined the Pennsylvania Public Utility Commission's Safety Division in June 2018.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to address Columbia Gas of Pennsylvania, Inc. ("Columbia," "CPA" or "Company") pipeline replacement of bare steel, cast iron, vintage plastic pipe installed before 1982 also known as first-generation plastic pipe, and coated steel installed before 1971. More specifically, the purpose of my direct testimony will address the following issues:

A. Federal and state regulations Columbia is required to follow;

B. Columbia's Distribution Integrity Management Plan ("DIMP");

C. Pipeline replacements of bare steel, cast iron, first-generation plastic, and or coated steel installed before 1971;

D. Columbia's Long Term Infrastructure Improvement Plans ("LTIIP").

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 4 contains schedules relating to my testimony.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS?

A. I&E is responsible for protecting the public interest in proceedings before the Commission. The I&E analysis in a rate proceeding is based on its responsibility to represent the public interest. This responsibility requires the balancing of the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. DID ANY COMPANY WITNESS PROVIDE TESTIMONY ON COLUMBIA'S PIPELINE REPLACEMENT?

A. Yes, Columbia witnesses Kempic[1], Brumley[2], and Anstead[3], each discuss the Company's plans for pipeline replacement.

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[1] Columbia Statement No. 1, pp. 11-22.
[2] Columbia Statement No. 7, pp. 6-13.
[3] Columbia Statement No. 14, pp. 3-13.

DIMP REGULATIONS

Q. WHAT FEDERAL AND STATE REGULATIONS ARE CONTROLLING REGARDING COLUMBIA'S PIPELINE REPLACEMENTS?

A. CPA is mandated to adhere to the DIMP under CFR 49 Part 192.1001-192.1015, Subpart P of the Code of Federal Regulations. Additionally, utilities like Columbia, which are seeking to continue a previously approved Distribution System Improvement Charge ("DSIC") mechanism are required to submit a LTIIP pursuant to 52 Pa Code §121.1 and §121.3.

Q. WHAT ARE THE REQUIREMENTS OF THE DIMP?

A. DIMP requires a natural gas utility to perform the following risk management strategies:

1. Identify the threats to its facilities;
2. Evaluate and rank the risks of threats to the facilities;
3. Identify and implement measures to reduce risk;
4. Measure performance, monitor the results, and evaluate effectiveness;
5. Periodically evaluate and make improvements to the program; and
6. Report the results.

DIMP regulations require Columbia to identify the risks to its pipeline facilities and to create a plan or plans to mitigate and reduce these risks. The Company determines pipeline replacements by risk ranking the different pipeline types and then replacing the pipe based on the highest risk ranking.

Q. WHY MUST A NATURAL GAS DISTRIBUTION COMPANY COMPLY WITH THE DIMP REGULATIONS?

A. Pipeline and Hazardous Materials Safety Administration ("PHMSA") created DIMP regulations to reduce the number of US Department of Transportation ("US DOT") reportable incidents.[4]

LTIIP INTRODUCTION

Q. WHY MUST A NATURAL GAS DISTRIBUTION COMPANY FILE AN LTIIP?

A. A natural gas distribution company must submit an LTIIP for Commission approval to be eligible to recover the reasonable and prudently incurred costs regarding the repair, improvement, and replacement of eligible property via the DSIC. The Company must file an LTIIP, because it provides information on the infrastructure replacements and repairs that are needed. The LTIIP should address the replacement of aging infrastructure and must be sufficient to ensure safe and reliable service.

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[4] A PHMSA reportable incident means any of the following events: (1) An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one or more of the following consequences: (i) A death, or personal injury necessitating in-patient hospitalization; (ii) Estimated property damage of $122,000 or more, including loss to the operator and others, or both, but excluding cost of gas lost; (iii) Unintentional estimated gas loss of three million cubic feet or more; (2) An event that results in an emergency shutdown of an LNG facility. Activation of an emergency shutdown system for reasons other than an actual emergency does not constitute an incident. (3) An event that is significant in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2) of this definition.

Q. WHAT ARE THE REQUIREMENTS OF AN LTIIP?

A. The LTIIP must include the following elements:

1. Identification of types and age of eligible property owned and operated by the utility for which it is seeking DSIC recovery;
2. An initial schedule for planned repair and replacement of eligible property;
3. A general description of location of eligible property;
4. A reasonable estimate of quantity of eligible property to be improved or repaired;
5. Projected annual expenditures and means to finance the expenditures;
6. A description of the manner in which infrastructure replacement will be accelerated and how repair, improvement, or replacement will ensure and maintain adequate, efficient, safe, reliable, and reasonable service to customers;
7. A workforce management and training program designed to ensure that the utility will have access to a qualified workforce to perform work in a cost-effective, safe, and reliable manner; and
8. A description of a utility's outreach and coordination activities with other utilities, Department of Transportation, and local governments regarding the planned maintenance/construction projects and roadways that may be impacted by the LTIIP. The LTIIP must address only the specific property eligible for DSIC recovery.[5]

[5] See 52 Pa Code § 121.3.

RELATIONSHIP BETWEEN DIMP AND LTIIP

Q. WHY DOES I&E REVIEW A COMPANY'S DIMP PLAN DURING RATE CASE PROCEEDINGS?

A. DIMP requirements are part of the Federal Safety Code. Distribution pipeline operators are required to comply with 49 CFR 192 Subpart P-Gas Distribution Pipeline Integrity Management. Included in this subpart are, among other requirements, the requirements to identify threats, evaluate and rank risk, identify and implement measures to address risk and measure performance, monitor results, and evaluate effectiveness. Lastly, the process must include a periodic evaluation and demonstrate improvement in risk reduction. I&E Pipeline Safety Engineers are trained to evaluate compliance with these requirements. If risk scores are not reducing, if risk indicators are flat or increasing, if mitigation measures or replacement numbers are lagging, this raises concerns from a safety standpoint. Assuming a company is adequately addressing the riskiest assets, the risk is expected to reduce over time. If risk is increasing, I&E Pipeline Safety Engineers would pose the following questions:

- Is risk is being calculated in an effective manner?
- Is the company mitigating risk effectively for the proper asset?
- Is the company mitigating the asset aggressively enough to reverse the non-decreasing level of risk?

Q. WHAT IS THE CONNECTION BETWEEN PIPELINE SAFETY'S REVIEW OF DIMP AND LTIIP PROGRAMS?

A. The rate of replacement for risky pipelines, which cast iron and bare steel pipelines are historically either very high, or the highest risk asset in most distribution systems, is monitored, measured, and recorded. This replacement data is reviewed during DIMP inspections and also during rate cases for those companies that claim large capital expenditures for pipeline replacements. Another tool to monitor pipeline replacement is the LTIIP filed for those companies that utilize the DSIC to recover costs for eligible projects. The LTIIP is a forward-looking plan for main replacements that is not particular to specific mains or assets, but as asset groups system wide. For the pipelines, the LTIIP lists the mileage replacement projections per year and usually an overall timeline goal when all of that asset is to be removed from service. The LTIIP is created by the company based on the company's analyses and projections. If, for example, during a rate case, it is determined that system leaks are increasing on a specific asset, the usual conclusion is that the risk is increasing since leaks are a major part of the risk calculation algorithm for most companies. From a safety standpoint, I&E will have elevated concerns when this trend is observed. This then turns attention to that company's LTIIP. If the risk is increasing, or relatively flat, and the company is not meeting the replacement goals established by the company in its LTIIP, I&E Pipeline Safety's concerns are further elevated in that more of this high risk asset is remaining in service and will remain in service for a longer period of time if replacement rates are not changed. Not to mention, the company is not meeting its own replacement goals stated in the LTIIP and filed with the Commission. However, if the LTIIP goals are met, the LTIIP and any related replacement/mitigation plans may need to be more aggressive if the trends indicate increasing risk.

Q. WHAT IS THE RELATIONSHIP BETWEEN LTIIP, DIMP, AND I&E PARTICPATING IN RATE CASES?

A. I&E Pipeline Safety's goal through intervention in base rate cases is to bring to light potential safety impacts that are observed through reported outcomes of the Company's risk calculations, asset replacement and mitigation efforts, replacement costs, LTIIPs, and risk factor indicators, such as incidents and leaks.

<u>COLUMBIA'S RISK OVERVIEW</u>

Q. HOW DOES THE COMPANY EVALUATE RISK?

A. The Company evaluates the top threats to its facilities based on: (1) the DIMP regulations; (2) pipeline safety issues identified by PHMSA; and (3) violations cited by I&E's Pipeline Safety Division. CPA is required to implement pipeline replacements based on its DIMP plan to reduce the risk to the Company's system as required under DIMP regulations. DIMP compliance is not optional; it is a regulation.

Q. WHAT IS THE INDUSTRY'S COMMON MITIGATION MEASURE FOR HIGH RISK PIPELINE SEGMENTS?

A. The industry's common mitigation measure to reduce risk is to replace the highest risk pipelines first. As a company replaces the pipelines determined to be the highest risk, risk should be reduced. The overall risk of the asset group will be reduced as the riskiest pipeline is replaced, provided enough risky pipe is replaced in that asset group to overcome increasing risks presented by remaining segments within that group.

Q. HAVE YOU REVIEWED CPA'S EVALUATION AND RISK RANKING IN ITS DIMP AS IT RELATES TO REPLACEMENT AND BETTERMENT PROJECTS?

A. Yes. Columbia does not apply typical risk scores to each pipe material and instead, uses a software tool, Optimain, to identify individual segments of risky pipe within the system based on the pipe's age and condition.[6] Optimain is comprehensive software being used by all NiSource gas distribution companies to help assess and prioritize the risk associated with priority mains and allocate capital towards those risks.[7] Replacement projects are then scheduled based on the results of this ranking and higher risk segments are prioritized to be replaced. Columbia does, however, apply an overall risk score to its entire system. The

[6] I&E Exhibit No. 4, Schedule No. 1.
[7] Columbia Gas Second LTIIP at Docket No. P-2017-2602917, pp. 12-13 (Order entered September 21, 2017).

overall risk is then decreased each year as long as the risk removed from the system is greater than the increase in risk of the existing pipe segments.

Q. WHAT ARE COLUMBIA'S RISKIEST ASSETS THAT SHOULD BE PRIORITIZED FOR REPLACEMENT?

A. In my opinion, the riskiest assets in a pipeline system have historically been bare steel pipe and cast iron pipe. These materials are seen as the riskiest because they are more susceptible to corrosion leaks over time and now display a higher leak rate per mile than other materials. As shown later in my testimony, the Company's bare steel leak rate is higher than plastic facilities that Columbia proposes to replace in addition to the highest risk pipe material.

Q. HAVE YOU REVIEWED COLUMBIA'S EVALUATION AND RISK RANKING IN ITS DIMP AS IT RELATES TO PIPELINE REPLACEMENT AND BETTERMENT PROJECTS?

A. Yes.

Q. HOW DOES COLUMBIA'S RISK RANKING COMPARE YEAR TO YEAR?

A. Columbia's risk score has decreased from 571,627 in 2017 to 542,933 in 2021. After the creation of a new base line annual risk score in 2017, which resulted in an increase in risk, the Company has reduced risk by an average of 1.28% per year.[8] The lowest year in risk reduction came in 2021, when there was only a 0.26% risk reduction from 2020's risk score despite replacing 9.89 more miles of pipe in 2021.

Q. WHY MIGHT COLUMBIA BE REDUCING LESS RISK ON THE SYSTEM DESPITE REPLACING MORE PIPE?

A. Columbia replaced 10.8 more miles of bare steel in 2021 than in 2020 yet less risk was removed from system.[9] In my opinion, one explanation for this could be that Columbia has not been removing the riskiest segments of bare steel pipe and therefore has not been maximizing risk reduction.

Q. PLEASE DISCUSS COLUMBIA'S AT RISK PIPE REPLACEMENT PROGRESS.

A. The Company's at-risk mains are decreasing each year; however, they are decreasing at a slower rate. The current replacement rates are inadequate to meet its LTIIP goals and reduce system risk. At the end of 2017, Columbia reported 7,548 miles of main with 1,337.8 miles, or 18.1%, being at-risk mains.[10] At the end of 2021, Columbia reported 7,715.5 miles of main with 1,044.1 miles, or 13.5%, being at-risk mains.[11]

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8 I&E Exhibit No. 4, Schedule No. 2.
9 I&E Exhibit No. 4, Schedule No. 3, p. 2.
10 I&E Exhibit No. 4, Schedule No. 4, p. 2.
11 I&E Exhibit No. 4, Schedule No. 4, p. 2.

Columbia's responses to discovery show that, over the five-year period of 2017-2021, a total of 293.7 miles, or 4.3%, of the at-risk mains were replaced.[12] At this average replacement rate of 0.86% per year, it will take Columbia 15 more years to replace its bare steel, cast iron, and wrought iron mains.

<u>COLUMBIA'S PIPE REPLACEMENT PROGRESS</u>

Q. PLEASE DISCUSS COLUMBIA'S BARE STEEL REPLACEMENT PROGRESS.

A. Columbia reported 1,350.1 miles of bare steel at the beginning of 2017 and 997.4 miles of bare steel at the end of 2021.[13] Columbia replaced a total of 352.7 miles of bare steel over those five years with an average of 70.54 miles per year. At this rate, Columbia will replace all remaining bare steel mains in 14 years. Using this projection, Columbia will not have all bare steel mains replaced until 2035, which is six years after the replacement goal stated in its 2012 and 2017 LTIIPs.

Q. PLEASE DISCUSS COLUMBIA'S CAST IRON MAIN REPLACEMENT PROGRESS.

A. Columbia reported 107.5 miles of cast iron main at the beginning of 2017 and 46.7 miles of cast iron at the end of 2021.[14] In those five years, Columbia replaced

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[12] I&E Exhibit No. 4, Schedule No. 3, p. 2.
[13] I&E Exhibit No. 4, Schedule No. 4, p. 2.
[14] I&E Exhibit No. 4, Schedule No. 4, p. 2.

60.8 miles of cast iron main. Columbia is on pace to replace all cast iron within four years and meet its cast iron replacement goals.

Q. PLEASE DISCUSS COLUMBIA'S FIRST-GENERATION PLASTIC REPLACEMENT PROGRESS.

A. Columbia defines first-generation plastic pipe as pipe that was installed prior to 1982. The Company reported 633.5 miles of pre-1982 plastic pipe and plastic pipe with an unknown install date at the end of 2021.[15] The Company has replaced 11.2 miles in 2021, 10.2 miles in 2020, 9.4 miles in 2019, 6 miles in 2018, and 13.5 miles in 2017.[16] With an average replacement rate of ten miles per year, it would take 63 years to remove all pre-1982 plastic pipe in the system. While the removal of pre-1982 plastic pipe is beneficial for the safety and risk reduction of the system, in my opinion, focusing too many resources in this area will prevent the Company from replacing higher risk pipe that was determined by Columbia's DIMP and meeting its goal set in the LTIIP. The goal of DIMP is to replace the pipe that is the highest risk.

Q. HOW DOES COLUMBIA'S LTIIP ADDRESS PIPELINE REPLACEMENT?

A. Columbia filed its LTIIP with the Commission in 2017 at Docket No. P-2017-

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[15] I&E Exhibit No. 4, Schedule No. 4, p. 3.
[16] I&E Exhibit No. 4, Schedule No. 3, p. 2.

2602917. Columbia averred in the LTIIP filing that it experienced an increasing number of leaks in areas with a high concentration of aging pipe.[17] Columbia stated in the LTIIP that removal of bare steel and cast-iron pipe will reduce the Company's leakage based on corrosion.[18]

Q. WHAT IS THE COMPANY'S STATED TIME FRAME IN THE LTIIP FOR CAST IRON AND BARE STEEL PIPELINE REPLACEMENT?

A. Columbia's 2017 LTIIP claims that it will replace all cast iron and bare steel pipe in its system by 2029.[19]

Q. WHY DID COLUMBIA CHOOSE THE 2029 REPLACEMENT GOAL AS STATED IN THE LTIIP?

A. In 2007, Columbia was issued a non-compliance letter titled NC-30-07,[20] which is issued whenever I&E finds that an operator has violated federal or state codes. As part of the Company's response to rectify issues identified in NC-30-07, Columbia told the Safety Division that it would eliminate all bare steel and cast iron in the

[17] Petition of Columbia Gas of Pennsylvania, Inc. for Approval of a Major Modification to its Existing Long-Term Infrastructure Improvement Plan and Approval of its Second Long-Term Infrastructure Improvement Plan at Docket No. P-2017-2602917, p. 6.

[18] Petition of Columbia Gas of Pennsylvania, Inc. for Approval of a Major Modification to its Existing Long-Term Infrastructure Improvement Plan and Approval of its Second Long-Term Infrastructure Improvement Plan at Docket No. P-2017-2602917, p. 6.

[19] Petition of Columbia Gas of Pennsylvania, Inc. for Approval of a Major Modification to its Existing Long-Term Infrastructure Improvement Plan and Approval of its Second Long-Term Infrastructure Improvement Plan at Docket No. P-2017-2602917, p. 10.

[20] I&E Exhibit No. 7, Schedule 3 at Docket No. R-2012-2321748.

system.[21] The replacement schedule was created due to violations found with the Company's corrosion control program and as a direct result of an active corrosion investigation. Columbia also stated in the second LTIIP that "Columbia began repairing or replacing its distribution infrastructure on an accelerated basis in 2007 after identifying an increasing number of leaks in areas with a high concentration of aging pipe." [22] Corrosion on bare steel and cast iron pipe was a known risk in 2007 and fueled the implementation of an accelerated replacement program.

Q. HAS COLUMBIA IDENTIFIED CAST IRON AND BARE STEEL PIPE AS THE PRIORITY FOR REPLACEMENT IN THE PAST?

A. Yes. In the first LTIIP filed in 2012, the Company states, "Columbia anticipates that the replacement of cast iron and bare steel will be completed in approximately seventeen years, or by the end of 2029."[23] In the corresponding footnote, Columbia then states, "After that, Columbia plans to focus on replacing other first generation distribution system components such as Aldyl-A, ineffectively coated steel pipe, distribution regulator stations, etc." [24]

In the second LTIIP filed in 2017, Columbia states that "Columbia's primary focus in its accelerated main replacement program … is replacing its "first

[21] I&E Exhibit No. 7, Schedule 4 at Docket No. R-2012-2321748.

[22] Petition of Columbia Gas of Pennsylvania, Inc. for Approval of a Major Modification to its Existing Long-Term Infrastructure Improvement Plan and Approval of its Second Long-Term Infrastructure Improvement Plan at Docket No. P-2017-2602917, p. 6.

[23] Petition of Columbia Gas of Pennsylvania, Inc. for Approval of its Long Term Infrastructure Improvement Plan at Docket No. P-2012-2338282, p. 6.

[24] Columbia Gas of Pennsylvania, Inc. Long Term Infrastructure Improvement Plan (2013-2017), Docket No. P-2012-2338282, p. 8.

generation" bare steel and cast iron pipe which are most susceptible to failure from corrosion, cracks, and leakage."[25] This shows that corrosion on bare steel and cast iron has historically been viewed as the priority for replacement over other pipe materials.

Q. WILL COLUMBIA MEET THE REPLACEMENT GOALS IN ITS LTIIP PLAN?

A. No, not at the current rate. I am growing increasingly concerned that Columbia will not meet the target of replacing all cast iron and bare steel mains by 2029 due largely in part to current and past replacement levels.

As part of its LTIIP filing in 2017, Columbia provided a portion of Wesley Soyster's testimony from the 2016 Columbia base rate case in which Mr. Soyster identified cast iron and bare steel as the highest priority for removal according to the Company's DIMP.[26] After converting the replacement schedule from feet to miles per year, Columbia planned to replace 130.7 miles of main in 2018, 130.7 miles of main in 2019, 138.3 miles of main in 2020, 141.1 miles of main in 2021, and 142.1 miles of main in 2022.[27] Columbia has only met this replacement goal in 2019 and has been replacing at an average of 26.2 miles per year below the replacement target from 2018-2021.[28] Although Columbia has removed almost all

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25 Petition of Columbia Gas of Pennsylvania, Inc. for Approval of a Major Modification to its Existing Long-Term Infrastructure Improvement Plan and Approval of its Second Long-Term Infrastructure Improvement Plan at Docket No. P-2017-2602917, p. 11.

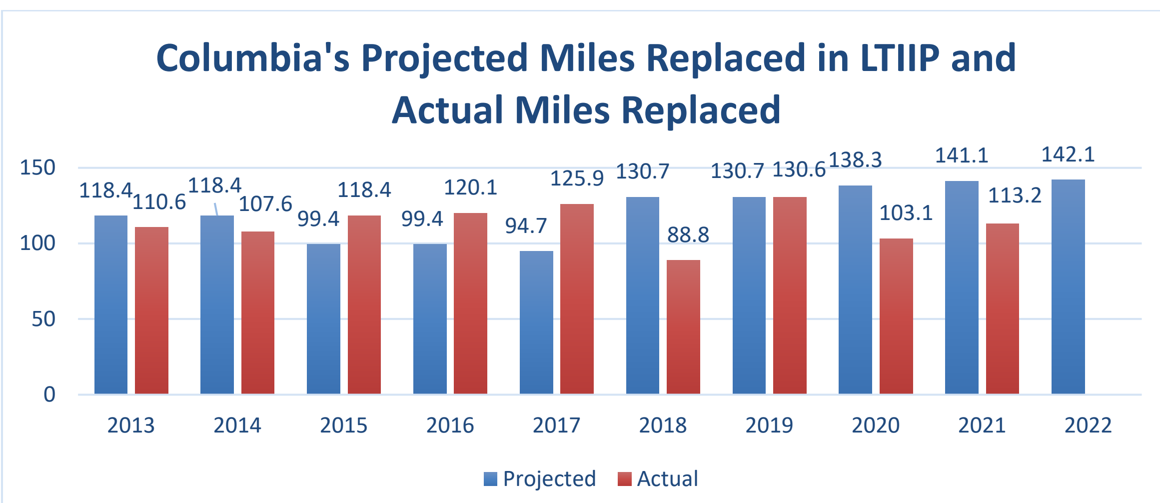
26 Columbia Gas Second LTIIP at Docket No. P-2017-2602917, p. 7 (Order entered September 21, 2017).

27 Columbia Gas Second LTIIP at Docket No. P-2017-2602917, p. 13 (Order entered September 21, 2017).

28 I&E Exhibit No. 4, Schedule No. 5.

cast iron from the system, if Columbia's yearly bare steel replacement average from 2017-2021 continues, it will take an additional 14 years for Columbia to remove all bare steel from the system.

The graph and table below demonstrate the mileage of main that Columbia committed to replacing each year compared to the actual mileage that Columbia replaced. As you can see, the mileage that Columbia committed to replacing has increased each year during the second LTIIP. Each year that Columbia does not meet the replacement goal means that Columbia will have to exceed the replacement goal in the following year to remain on pace to replace all cast iron and bare steel by 2029. As Columbia fails to meet their yearly targets, the additional pipe that needs to be replaced each year compounds. Additionally, if first-generation plastic pipe and pre-1971 coated steel is added to the priority pipe category and prioritized for replacement over replacing additional bare steel and cast iron, it will be even more difficult to meet the 2029 replacement goal.



Q. HOW MANY MILES OF PIPE WILL COLUMBIA HAVE TO REPLACE EACH YEAR TO MEET THE 2029 GOAL?

A. For Columbia to meet its 2029 target of having all cast iron and bare steel removed from the system, they must replace 130.5 miles of bare steel and cast iron main every year. This is 48.8 miles more than the yearly average over the last five years.[29] Due to increasing safety concerns, I believe that Columbia should drastically increase its pipeline replacement efforts to ensure that it meets the goal that was originally set in the 2012 and 2017 LTIIPs.

Q. HAS I&E PREVIOUSLY BEEN CONCERNED WITH COLUMBIA MEETING ITS REPLACEMENT GOAL ESTABLISHED IN THE 2012 AND 2017 LTIIP'S?

A. Yes. As previously mentioned, Columbia has previously filed two LTIIPs, the first was filed in 2012 (Docket No. P-2012-2338282) and the second was filed in 2017 (Docket No. P-2017-2602917). Since the first LTIIP in 2012, I&E has raised concerns several times over Columbia's replacement rate of risky pipes and completing the replacement goal of removing all cast iron and bare steel from the system by 2029. These concerns were raised by I&E witnesses in Columbia's previous base rate cases at Docket Nos. R-2014-2406274, R-2015-2501500, R-2016-2521993, R-2016-2529660, and R-2020-3018835. In each of these cases,

[29] I&E Exhibit No. 4, Schedule No. 3.

I&E has expressed concern over Columbia's pipeline replacement goals, yet Columbia still has not increased replacement efforts to meet the original goal that was set in the LTIIP.

<u>LEAK RATES</u>

Q. HAS COLUMBIA'S LEAK RATE BEEN DECREASING WITH ITS BARE STEEL PIPELINE REPLACEMENT PROGRAM?

A. No, the Company's leak rate has not significantly declined in recent years. Columbia's total leaks on bare steel main have stayed relatively the same between 2017 and 2020 but decreased by approximately 17% from 2020 to 2021. More specifically, from 2017 to 2021, Columbia reported a yearly average of .98 leaks per mile of bare steel main when excluding excavation damage leaks. During the same period, Columbia reported a yearly average of 1,186 total leaks on bare steel main. An average of 77.4% of the Company's leaks have been corrosion leaks which occur on metallic pipe materials and are more common on bare steel and cast iron compared to coated steel.[30] Columbia witness Brumley states that 51% of the hazardous or potentially hazardous leaks on Columbia's mains in 2021 were caused by corrosion.[31] Despite Columbia's total leak number decreasing on bare steel, the leak rate per mile of bare steel pipe has not seen the same decrease and was reported at .94 leaks per mile in 2021. It has stayed relatively steady since 2017 and continues to exhibit a much higher leak rate than plastic or coated steel.

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30 I&E Exhibit No. 4, Schedule No. 6, p. 2.
31 Columbia Statement No. 7, pp. 8, line no. 22 & 23.

Q. WHY IS THE BARE STEEL LEAK RATE STAYING RELATIVELY CONSTANT?

A. Over the last five years, the leak rate per mile of bare steel main has stayed relatively constant and there has not been a significant decrease. In my opinion, one explanation for this is that Columbia may not have been replacing the sections of main with the highest leak rates.

Q. WHAT IS COLUMBIA'S LEAK RATE ON PLASTIC AND PLASTIC INSERT PIPELINES?

A. From 2017 to 2022, Columbia reported a yearly average of 0.04 leaks per mile of plastic or plastic insert main when excluding excavation damage leaks. During the same period, Columbia reported a yearly average of 172 total leaks on their plastic system when excluding excavation damage leaks.[32] There were 26 total hazardous leaks on plastic in the last five years due to plastic pipe cracking.[33]

Q. IS COLUMBIA ABLE TO DETERMINE AN ACCURATE LEAK RATE ON FIRST GENERATION PLASTIC PIPE?

A. No. Columbia does not segregate pre-1981 plastic or 1982 plastic in its total leak data.[34] Columbia does not consider pipe installed in 1982 to be first generation. Unlike bare steel, Columbia is unable to determine a leak per mile rate of pre-1982

[32] I&E Exhibit No. 4, Schedule No. 6, p. 2.
[33] I&E Exhibit No. 4, Schedule No. 7, p. 2.
[34] I&E Exhibit No. 4, Schedule No. 8, p. 3.

plastic. The absence of leak data makes it difficult to obtain an accurate leak rate per mile of first generation plastic main.

RECOMMENDATIONS

Q. WHAT IS YOUR OPINION REGARDING COLUMBIA'S PIPELINE REPLACEMENT?

A. Columbia needs to increase its pipeline replacement effort based on its DIMP to reduce the risks to the Company's systems, as required under DIMP regulations (CFR 49 Part 192.1001-192.1015 Subpart P). Columbia's DIMP has shown that bare steel and cast iron are among the riskiest pipe materials and should be a priority for replacement. Although Columbia has established yearly replacement targets to ensure that it stay on track to meet the goal of having all cast iron and bare steel pipe out of the system by 2029, it has failed to meet those targets in six of the last ten years. Columbia has also failed to meet its goals in the years with the highest replacement targets and has met its goals in three of the lowest yearly targets. This is especially concerning due to the large amount of pipe that needs to be replaced each year for the next 8 years for Columbia to reach its 2029 goal. Columbia is currently 52.8 miles behind its original replacement schedule and faces the challenge of replacing this mileage along with meeting its yearly targets for the next eight years. Therefore, I recommend that Columbia continue to focus on increasing its yearly replacement rate to ensure that it meets its original commitment set in the LTIIP.

Q. DO YOU HAVE ANY ADDITIONAL RECOMMENDATIONS?

A. Yes. Columbia currently defines first-generation plastic as plastic that was installed before 1982. However, Columbia had an incident on plastic pipe that was installed in 1982. Therefore, I recommend that Columbia include 1982 plastic pipe in the definition of first-generation plastic pipe due to the incident that occurred on pipe that was installed in 1982.

I also recommend that the installation year of plastic pipe should be tracked when a leak is discovered. This will allow Columbia to determine an accurate leak rate on first generation plastic and identify which years or generations of plastic have a higher risk of failing. My recommendation to track the installation year of plastic pipe will aid in more accurate risk ranking and identification of materials that are the riskiest.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

I&E Exhibit No. 4
Witness: Tyler Merritt

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Exhibit to Accompany

The

Direct Testimony

of

Tyler Merritt

Bureau of Investigation & Enforcement

Concerning:

DISTRIBUTION INTEGRITY MANAGEMENT PLAN
PIPELINE REPLACEMENT
LONG TERM INFRASTRUCTURE IMPROVEMENT PLAN

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set PS

Question No. I & E PS-007-D:

Provide the total system risk reduction for the last five calendar years for the following pipe material categories:

A. Cast Iron;

B. Wrought Iron;

C. Bare Steel;

D. Pre 1971 Coated Steel;

E. Pre 1981 Plastic; and

F. 1982 Plastic.

Response:

The replacement of bare steel, cast iron, and wrought main is one of the leading programs to address risk in the DIMP. Because the DIMP risk model is quantitative and validated by Subject Matter Experts (SME), the risk scores for bare steel, cast iron, and wrought iron main are continuously determined to be a high risk by the SME's in order to maintain focus on its replacement. There are several key indicators of risk reduction used by the Company. Those indicators include good, measurable progress on LTIIP, the removal of bare steel, cast iron, and wrought iron pipe (more than 408 miles removed from 2017-2021) and the overall reduction in the number of open type-2 leaks.

To assess the replacement of bare steel, cast iron, and wrought iron pipe as part of the DIMP plan, the Company uses the Optimain risk model to prioritize the replacement of mainline pipe due to age and condition. Historic Optimain risk scores by capital project are not readily available, as the Company uses Optimain to build necessary replacement projects, not to track scores of completed capital projects. However, the Company does maintain historic Optimain risk scores by total pipe segment by year.

Accordingly, the Optimain risk scores by year, identifying the total risk removed with respect to each year, with the associated footage of main replaced for each year, are shown in Table 1 of the response to I&E-PS-06-D.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set PS

Question No. I & E PS-006-D:

Provide the total risk score on the distribution system at the end of each of the last five calendar years.

Corrected Response 5/10/2022:

Please see Table 1:

Table 1

Year	Priority Pipe Main Replaced by Foot	Optimain-Total Risk Scores by Year	Risk Removed (from prior year's score)	% Reduction from Prior Year's Score
2021	440,036	542,933	-1,392	0.26%
2020	387,821	544,325	-3,532	0.64%
2019	516,689	547,857	-20,497	3.61%
2018	302,606	568,354	-3,273	0.60%
2017	509,428	571,627	8923	-1.59%*

*The increase in risk score for 2017 can be attributed to improvements made to the Optimain scoring model related to the leak placement process. As a result of this process, the Optimain risk score was adjusted this year from its original status, thus showing a new base line annual risk score for that year.

Original Response:

Please see Table 1:

Table 1

Year	Priority Pipe Main Replaced by Foot	Optimain-Total Risk Scores by Year	Risk Removed (from prior year's score)	% Reduction from Prior Year's Score
2021	440,036	528,718	-1,392	0.26%
2020	387,821	544,325	-3,532	0.64%
2019	516,689	547,857	-20,497	3.61%
2018	302,606	568,354	-3,273	0.60%
2017	509,428	571,627	8923	-1.59%*

*The increase in risk score for 2017 can be attributed to improvements made to the Optimain scoring model related to the leak placement process. As a result of this process, the Optimain risk score was adjusted this year from its original status, thus showing a new base line annual risk score for that year.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set PS

Question No. I & E PS-001-D:

For the last ten calendar years, provide the miles or footages of pipe replaced for the following pipe material categories:

A. Cast Iron;

B. Wrought Iron;

C. Bare Steel;

D. Pre 1971 Coated Steel;

E. Pre 1981 Plastic; and

F. 1982 Plastic.

Response:

Please see Table 1 below for the footages and miles of pipe replaced respectively. The Company does not keep track of Pre-1981 Plastic and 1982 Plastic (E&F), but instead keeps track of Pre-1982 Plastic and Post 1981 Plastic.

Table 1

Pipe Type	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cast Iron	21,821	28,114	15,787	16,933	30,641	24,318	32,078	25,749	22,586	15,549
Wrought Iron	25,299	30,502	13,190	4,602	0	13993	4291	0	0	1,930
Bare Steel	356,238	392,147	384,269	469,471	448,149	471,117	265,921	490,940	365,235	422,557
Pre 71 Coated Steel	85,785	91,100	111,531	82,873	102,159	83,898	134,760	123,020	102,316	98,379
Pre 82 Plastic	36,871	41,891	43,296	51,070	53,028	71,238	31,643	49,818	54,103	59,210
Total	526,014	583,754	568,073	624,949	633,977	664,564	468,693	689,527	544,240	597,625

Pipe Type	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cast Iron	4.1	5.3	3.0	3.2	5.8	4.6	6.1	4.9	4.3	2.9
Wrought Iron	4.8	5.8	2.5	0.9	0.0	2.7	0.8	0.0	0.0	0.4
Bare Steel	67.5	74.3	72.8	88.9	84.9	89.2	50.4	93.0	69.2	80.0
Pre 71 Coated Steel	16.2	17.3	21.1	15.7	19.3	15.9	25.5	23.3	19.4	18.6
Pre 82 Plastic	7.0	7.9	8.2	9.7	10.0	13.5	6.0	9.4	10.2	11.2
Total	99.6	110.6	107.6	118.4	120.1	125.9	88.8	130.6	103.1	113.2

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set PS

Question No. I & E PS-024:

Reference Columbia's response to I&E-PS-03. Provide the miles or footages of pipe remaining in Columbia's system for the following pipe material categories at the end of the last 10 calendar years:

A. Cast Iron

B. Wrought Iron

C. Bare Steel

D. Pre 1971 Coated Steel

E. Post 1970 Coated Steel

F. Pre 1982 Plastic

G. Post 1981 Plastic

Response:

Please see I&E-PS-024 Attachment A.

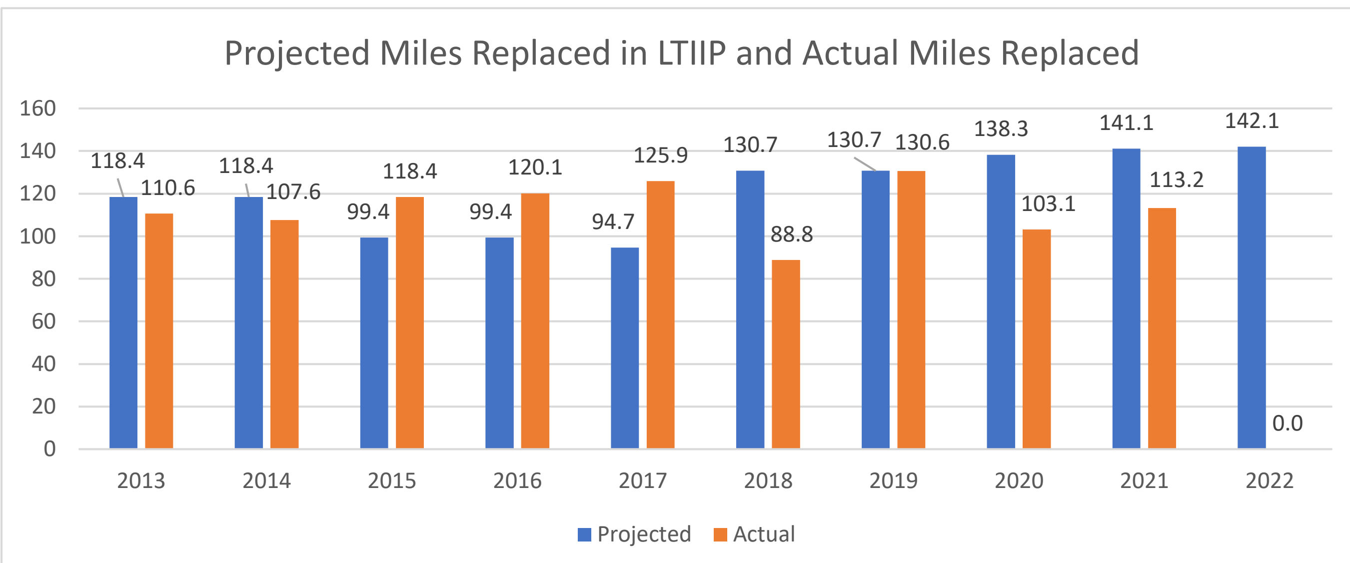
I&E-PS-024 Attachment A

Miles of Priority Pipe Remaining per CPA DOT Distribution Reports

End of Year	Unprotected Bare Steel	Cathodically Protected Bare Steel	Cathodically Protected Coated Steel	Plastic	Cast Iron / Wrought Iron	Other	Total
2012	1641.4	32.2	1745.1	3762.1	147.3	43.7	7371.8
2013	1570.6	26.8	1735.1	3898.3	138.3	41.8	7410.9
2014	1503.9	25.3	1717.7	4028.6	128	39.6	7443.1
2015	1415	22.5	1708.8	4159	117.7	37.4	7460.4
2016	1327.3	22.8	1704.4	4303.9	107.5	34.6	7500.5
2017	1248.2	23.5	1688	4464.3	92.5	31.9	7548.4
2018	1203.4	21.2	1684.8	4601.7	81.5	29.6	7622.2
2019	1112	21.1	1664	4762	69.2	28.1	7656.4
2020	1045.6	22.5	1645.1	4898.1	58.3	26.8	7696.4
2021	974.9	22.5	1624	5022.4	46.7	25	7715.5

Miles of Coated Steel and Plastic broken down - per Columbia's GIS

End of Year	Pre-1971 Coated Steel & Unknown Install Year Coated Steel	Post-1970 Coated Steel	Pre-1982 Plastic & Unknown Install Year Plastic	Post-1981 Plastic
2012	1431.6	313.5	723.5	3038.6
2013	1413	322.1	712.3	3186
2014	1389.6	328.1	704.5	3324.1
2015	1376.1	332.7	694.9	3464.1
2016	1363.4	341	684.5	3619.4
2017	1347.1	340.9	672.2	3792.1
2018	1320.2	364.6	665	3936.7
2019	1300.5	363.5	655.8	4106.2
2020	1282.4	362.7	645.3	4252.8
2021	1264.8	359.2	633.5	4388.9


Projected Miles Replaced in LTIIP and Actual Miles Replaced
160
140
120
100
80
60
40
20
0
118.4
110.6
118.4
107.6
99.4
118.4
99.4
120.1
94.7
125.9
130.7
88.8
130.7
130.6
138.3
103.1
141.1
113.2
142.1
0.0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Projected
Actual

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set PS

Question No. I & E PS-021:

Reference Columbia's response to I&E-PS-09. Provide the total number of "Grade 1", "Grade 2+", "Grade 2", and "Grade 3" leaks, excluding leaks caused by excavation damage, found on mains, of each of the following pipe materials for the last five calendar years:

A. Cast Iron
B. Wrought Iron
C. Bare Steel
D. Pre 1971 Coated Steel
E. Pre 1981 Plastic
F. 1982 Plastic

Response:

Please see table 1 below. Note that the companies leak reporting does not segregate based on age of material, therefore plastic, plastic insert and coated steel encompass all leaks on those materials regardless of age.

Table 1

Count of Leaks		2017	2018	2019	2020	2021	Total
1	CAST IRON	7	9	8	8		**32**
	WROUGHT IRON	2	1		2	1	**6**
	STEEL	110	171	132	122	129	**664**
	STEEL TREATED	2	13	14	19	10	**58**
	PLASTIC	31	34	39	47	48	**199**
	PLASTIC INSERT	3	1	1	1	1	**7**
	Total	**155**	**229**	**194**	**199**	**189**	**966**
2+	CAST IRON	7	12	11	2	1	**33**
	WROUGHT IRON	2	2	5	1	3	**13**
	STEEL	212	185	201	151	150	**899**
	STEEL TREATED	20	22	22	15	14	**93**
	PLASTIC	32	38	39	38	21	**168**
	PLASTIC INSERT	2		1			**3**
	Total	**275**	**259**	**279**	**207**	**189**	**1,209**
2	CAST IRON	16	30	29	11	1	**87**
	WROUGHT IRON	20	16	36	8	19	**99**
	STEEL	892	755	925	899	714	**4,185**
	STEEL TREATED	66	85	79	67	60	**357**
	PLASTIC	96	99	96	81	83	**455**
	PLASTIC INSERT	3	2	2	1	8	**16**
	Total	**1,093**	**987**	**1,167**	**1,067**	**885**	**5,199**
3	CAST IRON	1	1	7	2		**11**
	WROUGHT IRON	1	1	1			**3**
	STEEL	44	42	54	32	10	**182**
	STEEL TREATED	3	4	5	1		**13**
	PLASTIC	2	5	2	3	3	**15**
	PLASTIC INSERT						
	Total	**51**	**53**	**69**	**38**	**13**	**224**
Total	**CAST IRON**	**31**	**52**	**55**	**23**	**2**	**163**
	WROUGHT IRON	**25**	**20**	**42**	**11**	**23**	**121**
	STEEL	**1,258**	**1,153**	**1,312**	**1,204**	**1,003**	**5,930**
	STEEL TREATED	**91**	**124**	**120**	**102**	**84**	**521**
	PLASTIC	**161**	**176**	**176**	**169**	**155**	**837**
	PLASTIC INSERT	**8**	**3**	**4**	**2**	**9**	**26**
	Total	**1,574**	**1,528**	**1,709**	**1,511**	**1,276**	**7,598**

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set PS

Question No. I & E PS-015-D:

Provide the number of plastic pipe cracks or plastic fusion failures which have resulted in a "Grade 1" (Hazardous) Leak in the last five calendar years and the installation date of the material that failed.

Response:

Please see Table 1 in I&E-PS-15-D Attachment A, for the number of plastic pipe cracks and the year of its installation date of the material that failed, which have resulted in a Grade 1 Leak in the last five calendar years.

Please see Table 2 in I&E-PS-15-D Attachment A, for the number of plastic fusion failures and the year of its installation date of the material that failed, which have resulted in a Grade 1 Leak in the last five calendar years.

I&E-PS-15-D Attachment A

Table 1

Plastic Pipe Cracks

Leak Grade **1**

Year of Installation	1969	1970	1971	1989	1991	1997	2015	2018	Unknown	Grand Total
PLASTIC/PLASTIC INSERT										
MAIN	2	5	5		1				3	16
MNSERV (main/service)						1	1		1	3
SERV (service)		2	1	1				1	2	7
Grand Total	2	7	6	1	1	1	1	1	6	26

Table 2

Plastic Fusion Failures

Leak Grade **1**

Year of Installation	1970	1971	1974	1979	1980	1981	1982	1988	1989	1992	1993
COUPLING - BUTT FUSION											
SERV											
COUPLING - ELECTROFUSION											
MAIN											
SERV											
COUPLING - SOCKET FUSION											
MNSERV		1									
SERV											
OTHER - BUTT FUSION											
MNSERV				1							
PLASTIC/PLASTIC INSERT (Pipe/Pipe BF)											
MAIN	1		1	2	3	1	1				
MNSERV											
SERV					1				1		

SERVICE SADDLE TEE - ELECTROFUSION											
MAIN											
MNSERV											
SERVICE SADDLE TEE - SADDLE FUSION											
MNSERV					1			1		1	1
Grand Total	1	1	1	3	5	1	1	1	1	1	1

2005	2007	2011	2015	2017	2018	2019	2020	2021	Unknown	Grand Total
							1			1
	1		1		1					3
		1								1
1									2	4
									1	1
										1
									4	13
									1	1
									2	4

						1				1
				2	2		1	1	1	7
									1	5
1	1	1	1	2	3	1	2	1	12	42

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set PS

Question No. I & E PS-009-D:

Provide the total number of “Grade 1”, “Grade 2+”, “Grade 2”, and “Grade 3” leaks found on each of the following pipe materials for the last five calendar years:

A. Cast Iron;

B. Wrought Iron;

C. Bare Steel;

D. Pre 1971 Coated Steel;

E. Pre 1981 Plastic; and

F. 1982 Plastic.

Response:

Please see the following tables, which include mains and service lines.

A. Cast Iron

Count of Leaks		2017	2018	2019	2020	2021	Total
CAST IRON	1	8	10	9	8		**35**
	2+	8	14	12	2	1	**37**
	2	17	30	31	11	2	**91**
	3	1	1	7	2		**11**
	Total	**34**	**55**	**59**	**23**	**3**	**174**

B. Wrought Iron

Count of Leaks		2017	2018	2019	2020	2021	Total
WROUGHT IRON	1	2	1		2	1	**6**
	2+	2	2	5	1	3	**13**
	2	20	16	36	8	19	**99**
	3	1	1	1			**3**
	Total	**25**	**20**	**42**	**11**	**23**	**121**

C. Bare Steel

Count of Leaks		2017	2018	2019	2020	2021	Total
STEEL	1	213	257	211	196	199	**1,076**
	2+	262	259	236	195	190	**1,142**
	2	1,138	941	1,172	1,095	868	**5,214**
	3	52	52	59	38	13	**214**
	Total	**1,665**	**1,509**	**1,678**	**1,524**	**1,270**	**7,646**

D. Coated Steel

Count of Leaks		2017	2018	2019	2020	2021	Total
STEEL TREATED	1	37	43	35	49	43	**207**
	2+	44	52	29	33	28	**186**
	2	123	199	163	135	114	**734**
	3	20	37	16	3		**76**
	Total	**224**	**331**	**243**	**220**	**185**	**1,203**

E & F. All Plastic and Plastic Inserted. The company does not segregate pre 1981 plastic and 1982 plastic.

Count of Leaks		2017	2018	2019	2020	2021	Total
PLASTIC	1	300	364	341	319	303	**1,627**
	2+	134	165	136	121	108	**664**
	2	456	439	462	400	363	**2,120**
	3	120	94	73	14	6	**307**
	Total	**1,010**	**1,062**	**1,012**	**854**	**780**	**4,718**

Count of Leaks		2017	2018	2019	2020	2021	Total
PLASTIC INSERT	1	30	38	26	20	19	**133**
	2+	8	4	9	5	4	**30**
	2	19	17	22	29	32	**119**
	3						
	Total	**57**	**59**	**57**	**54**	**55**	**282**

I&E Statement No. 1-R
Witness: D. C. Patel

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Rebuttal Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

LOW-INCOME USAGE REDUCTION PROGRAM

HARDSHIP FUND

UPDATE TO I&E EXHIBIT NO. 1

TABLE OF CONTENTS

INTRODUCTION OF WITNESS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is D. C. Patel, and my business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

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

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. ARE YOU THE SAME D. C. PATEL WHO IS RESPONSIBLE FOR THE DIRECT TESTIMONY CONTAINED IN I&E STATEMENT NO. 1 AND THE SCHEDULES IN I&E EXHIBIT NO. 1?

A. Yes.

Q. DOES YOUR REBUTTAL TESTIMONY INCLUDE AN ACCOMPANYING EXHIBIT?

A. Yes. I&E Exhibit No. 1-R contains schedules that support my rebuttal testimony.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to address the direct testimony of: (1) Pennsylvania Weatherization Providers Task Force (PWPTF) witness Eugene

M. Brady concerning his recommended increase to Columbia Gas of Pennsylvania, Inc's. (Columbia or Company) Low Income Usage Reduction Program (LIURP) budget by $846,000 beginning in the 2023 program year (PWPTF Statement No. 1, pp. 6-8); (2) Office of Consumer Advocate (OCA) witness Roger D. Colton concerning his recommended increase in the LIURP production goal and associated cost (OCA Statement 4, pp. 44-46); (3) Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA) witness Harry S. Geller concerning his recommended increase in LIURP budget by a percentage equal to the percentage increase of any approved residential rate increase in this proceeding (CAUSE-PA Statement No. 1, pp. 25-29); and (4) PWPTF witness Eugene M. Brady concerning his recommended increase in the Company's contribution to the Hardship Fund commensurate with the percentage increase in residential rates that result from this proceeding (PWPTF Statement No. 1, p. 8).

<u>LIURP</u>

<u>RESPONSE TO PWPTF WITNESS EUGENE M. BRADY</u>

Q. SUMMARIZE MR. BRADY'S DIRECT TESTIMONY CONCERNING COLUMBIA'S LIURP BUDGET.

A. Mr. Brady states that the Company's annual funding for LIURP, Warm Wise for the years 2022 and 2023 is set at $5,075,000 and there is an unmet need for LIURP services. Therefore, he is proposing an additional annual increase of $846,000 in funding for the LIURP budget beginning in the 2023 program year (PWPTF Statement No. 1, pp. 6-7).

Q. WHAT IS THE BASIS FOR MR. BRADY'S RECOMMENDATION?

A. Mr. Brady refers to the most recent need assessment where the Company estimated that there were 18,647 households eligible for LIURP services and the Company estimates that it would take 26 years to weatherize the homes of those eligible for LIURP (PWPTF Statement No. 1, p. 6).

Next, he states that with over 18,000 customers in need of LIURP services, there is a great need for those services, and, therefore, suggests that with a rate increase granted, the number of customers served annually be increased by 75. Applying a LIURP cost of approximately $11,280 per recipient, Mr. Brady estimates an additional annual LIURP funding of $846,000 ($11,280 x 75) beginning in the 2023 program year (PWPTF Statement No. 1, p. 7).

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

A. No.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDED DISALLOWANCE OF MR. BRADY'S PROPOSAL?

A. While Mr. Brady's recommendation is well-intentioned, it is inappropriate to consider increasing the LIURP budget in the instant proceeding. Per Columbia's response to I&E-RE-93-D, the Company significantly underspent its Universal Service and Energy Conservation Plan's (USECP) approved LIURP budget in the fiscal years 2020 and 2021. Therefore, the Company has a significant unspent

LIURP roll over fund balance at the beginning of 2022, and a breakdown of the LIURP budget and spending by year is shown in the table below (I&E Exhibit No. 1-R, Schedule 1, pp. 1-2):

	2019	2020	2021
LIURP budget	$4,750,000	$4,875,000	$4,875,000
Actual spent	$5,228,706	$2,510,577	$3,463,108
Over/(under) spent	$478,706	($2,364,423)	($1,411,892)
Over/(under) spent %	10.08%	(48.50%)	(28.96%)

Q. WHAT IS THE COMPANY'S EXPLANATION CONCERNING THE UNDERSPENDING OF ITS LIURP BUDGET?

A. Columbia witness Deborah Davis indicates that due to COVID-19 shutdowns, the Company carried over $3,857,244 in unspent LIURP funds from 2020 and 2021 into its 2022 budget (Columbia Statement No. 13, p. 10). Ms. Davis indicates that the Company's LIURP spending would be $6,500,000 in 2022 (Columbia Statement No. 13, p. 12). Columbia proposes to spread any carryover from 2022 evenly over the next three calendar years, 2023 through 2025. Lastly, Ms. Davis indicates that the Company intends to increase its LIURP production; however, that will take time (Columbia Statement No. 13, p. 13).

Columbia has not shown that it will exhaust the existing budget or that there will be a shortfall in the funding level, and Mr. Brady has not provided any support indicating that the Company would be able to utilize the recommended increase in LIURP funding. Therefore, Mr. Brady's recommendation to increase the 2023 program year LIURP funding by $846,000 in this proceeding is not required or supported in view of the significant underspent roll over balance in the LIURP budget.

RESPONSE TO OCA WITNESS ROGER D. COLTON

Q. SUMMARIZE OCA WITNESS ROGER D. COLTON'S DIRECT TESTIMONY REGARDING COLUMBIA'S LIURP.

A. Mr. Colton recommends that Columbia be required to set a LIURP production goal of 932 low-income households per year. He then estimates at an average 2021 LIURP cost of $6,216 as reported by Columbia in its 2021 Universal Service Report to BCS, the total cost in 2021 dollars would be $5,795,798 (932 jobs x $6,216) (OCA Statement No. 4, p. 45). He did not specifically recommend any increase in the dollar amount for the 2023 LIURP budget (funding level) in this proceeding. However, he indicates that the total incremental cost of his proposal as shown above is not the definite funding amount because as a result of the proposed increase in LIURP jobs, there would be reductions in CAP credits and arrearages subject to forgiveness through Columbia's CAP (OCA Statement No. 4, pp. 45-46).

Q. WHAT IS THE BASIS FOR MR. COLTON'S RECOMMENDATION?

A. Mr. Colton states that Columbia projected it would serve approximately 792 low-income homes through LIURP out of the total 18,647 low-income customers. At this rate, it would take Columbia nearly 25 years to reach all low-income homes one time (not needing to retreat homes at any point in that 25-year period). Therefore, he recommends that Columbia should increase production goal to serve 932 ((18,647 x 50% = 9,324 target) ÷ 10 years) low-income households per year, which would translate to an approximate total cost of $5,795,798 based on 2021 cost base (OCA Statement No. 4, p. 45). Mr. Colton indicates that his recommendation is designed to respond to and reflect Columbia's LIURP spending in this proceeding because they could not appropriately be raised in a past or future USECP review (OCA Statement No. 4, p. 46).

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

A. I agree only in part. I agree with Mr. Colton's recommendation for increasing efforts to serve more low-income customers, but I disagree with increasing the budget amount in this proceeding. Considering Columbia's historic performance for LIURP spending as discussed above, it is inappropriate and unsupported to consider any potential increase in the approved LIURP budget in this base rate case proceeding.

Q. WHAT IS YOUR RECOMMENDATION?

A. I recommend that no potential increase in the budgeted LIURP amount be approved in this proceeding.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. As discussed above, Columbia has not shown that it will exhaust the existing budget or that there will be a shortfall in the funding level. Mr. Colton has not provided any support indicating that the Company would be able to serve his proposed 932 low-income customers per year. Additionally, Mr. Colton does not explain how the proposed incremental spending component will be exhausted in addition to the current underspent balance of LIURP budgeted funds.

RESPONSE TO CAUSE-PA WITNESS HARRY S. GELLER

Q. SUMMARIZE MR. GELLER'S DIRECT TESTIMONY CONCERNING COLUMBIA'S LIURP BUDGET.

A. First, Mr. Geller states that Columbia's LIURP program can help to mitigate the impact of the proposed rate increase on low income high-use households by installing a range of efficiency and weatherization measures to reduce unnecessarily high usage. He asserts that this program is not funded in a manner to meet the true need for energy efficiency and weatherization services, primarily due to LIURP measures' cost inflation and the rate increase impact proposed in this proceeding (CAUSE-PA Statement No. 1, pp. 25-26).

Therefore, he recommends that, at a minimum, Columbia should be required to increase its overall LIURP budget by a percentage equal to the percentage increase of any approved residential rate increase (CAUSE-PA Statement No. 1, p. 27).

Q. DO YOU AGREE WITH MR. GELLER THAT THE COMPANY'S LIURP BUDGET SHOULD BE INCREASED BY A PERCENTAGE EQUAL TO THE PERCENTAGE INCREASE IN RESIDENTIAL RATES AS APPROVED IN THIS PROCEEDING?

A. No.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. Mr. Geller refers to Columbia witness Ms. Davis' statement that due to COVID-19 shutdowns, the Company carried over $3,857,244 in unspent LIURP funds from 2020 and 2021 into its 2022 budget, the Company intends to spend $6,500,000 in 2022, and that any unspent/carry over funds are proposed to be carried over evenly in the next three calendar years, 2023-2025 (CAUSE-PA Statement No. 1, p. 27). As discussed above, Columbia has not shown that it will exhaust the existing budget and will experience a shortfall in the funding level. Additionally, Mr. Geller expressed his concern regarding Columbia's ability to sustain higher production levels in subsequent years (CAUSE-PA Statement No. 1, p. 29). Lastly, Mr. Geller does not provide any support for how the proposed incremental spending component will be exhausted, in addition to the current underspent balance of LIURP budget funds, in light of Mr. Geller's concern about Columbia's ability to sustain or achieve higher production levels as recommended by him.

Q. ARE THERE ANY OTHER REASONS THE COMMISSION SHOULD REJECT PWPTF, OCA, AND CAUSE-PA'S RECOMMENDATIONS TO INCREASE THE LIURP BUDGET IN THIS PROCEEDING?

A. Yes. Per Columbia's response to I&E-RE-94-D, the revised USECP 2019-2023, as extended via the Commission Order entered on January 16, 2020 (at Docket No. M-2018-2645401), reflects an approved LIURP budget for 2022 and 2023 of $4,875,000 per year (I&E Exhibit No. 1-R, Schedule 1, p. 3). The current USECP 2019-2023 (revised) will end next year in 2023, and, therefore, I believe it is inappropriate to grant an increase to the 2023 LIURP budget as proposed by the above three parties without consideration and evaluation of all of the program's performance indicators and provision of comments by all stakeholders and interested parties as can occur in the next USECP proceeding.

<u>RECENT COMMISSION ORDERS</u>

Q. ARE THERE ANY RECENT COMMISSION DECISIONS THAT SUPPORT YOUR RECOMMENDATIONS AS EXPLAINED ABOVE?

A. Yes. In the recent PECO Energy Company – Gas Division proceeding, the Commission did not consider CAUSE-PA's proposals related to CAP and other universal service program issues within the context of the base rate proceeding because they would be more properly considered in its USECP proceeding.[1] The

[1] *PA PUC v. PECO Energy Company – Gas Division*, Docket No. R-2020-3018929, pp. 195-196 (Order Entered June 22, 2021).

Commission referenced Columbia's 2020 base rate proceeding[2] in which it concluded, "that energy burdens should not be considered separately from other parts of the Company's CAP and universal service programs but should be considered as part of the Company's entire universal service plan, including the need for changes and associated costs."[3]

It should be noted that in the 2020 Columbia Gas proceeding, the Commission rejected a similar proposal related to the Health and Safety Pilot Program from CAUSE-PA.[4] In that proceeding the Commission agreed with the Administrative Law Judge's recommended decision denying any change to the pilot program until its effectiveness can be evaluated.[5]

HARDSHIP FUND

RESPONSE TO PWPTF WITNESS EUGENE M. BRADY

Q. SUMMARIZE MR. BRADY'S TESTIMONY CONCERNING COLUMBIA'S HARDSHIP FUND BUDGET.

A. Mr. Brady recommends that the Company's contribution to its hardship fund be increased commensurate with the percentage increase in rates of the residential class that would result from this proceeding. He then states that a

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[2] *PA PUC v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2020-3018835 (Order Entered February 19, 2021).

[3] *PA PUC v. PECO Energy Company – Gas Division*, Docket No. R-2020-3018929, p. 195 (Order Entered June 22, 2021).

[4] *PA PUC v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2020-3018835, pp. 160-161 and 173-174 (Order Entered February 19, 2021).

[5] *PA. PUC v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2020-3018835, p. 174 (Order Entered February 19, 2021).

modest increase in comparison to other universal service funding will help customers deal with a rate increase in these difficult economic times (WPTF Statement No. 1, p. 8).

Q. DO YOU AGREE WITH MR. BRADY'S RECOMMENDATION THAT THE COMPANY SHOULD INCREASE ITS CONTRIBUTION TO THE HARDSHIP FUND?

A. No.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. Mr. Brady did not specify or propose a definitive dollar increase in the Company's contribution to the hardship fund or the funding source for the contribution. Columbia's hardship fund is funded by shareholders, customer contributions, fundraising activities, and natural gas supplier refunds and penalty credits, and a breakdown of contribution with dollar amounts by year for 2019, 2020, and 2021 is provided in response to I&E-RE-90-D (I&E Exhibit No. 1-R, Schedule 2, p. 1). In the absence of any analysis of funding sources or the historic spending level of the hardship fund, and as discussed above, the fact that it is inappropriate to consider any increase to the hardship fund budget of $675,000 (I&E Exhibit No. 1-R, Schedule 2, p. 1) in this proceeding without seeking comments of all stakeholders and interested parties, I disagree with Mr. Brady's recommendation.

<u>UPDATE TO I&E EXHIBIT NO. 1</u>

Q. DO YOU HAVE ANY UPDATES OR CORRECTIONS TO I&E EXHIBIT NO. 1?

A. Yes.

Q. WHAT ARE YOUR CORRECTIONS?

A. It has come to my attention that I&E Exhibit No. 1, Schedule 4, page 8, requires correction due to the inadvertent exclusion of the fourth (last) column of data that was not shown in the pdf version of my exhibit. A corrected I&E Exhibit No. 1, Schedule 4, page 8 of 13, is included in the exhibit to this rebuttal testimony (I&E Exhibit No 1-R, Schedule 3, p. 1).

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

I&E Exhibit No. 1-R
Witness: D. C. Patel

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Exhibit to Accompany

the

Rebuttal Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

LOW-INCOME USAGE REDUCTION PROGRAM

HARDSHIP FUND

UPDATE TO I&E EXHIBIT NO. 1

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-093-D:

Reference Columbia Statement No. 13, provide approved budget versus actual spending under the Universal Service and Energy Conservation Plan (USECP) 2019-2021 by program category LIURP, CARES, CAP, and Hardship Fund and by year 2019, 2020, and 2021 in the format included in the USECP 2019-2021 filing (at Docket No. M-2018-2645401, p. 11).

Response:

Please see Attachment A to this request for the budget versus actual spending in the format included in the USECP 2019 – 2021 filing for the 2019, 2020 and 2021 years. These projections were made in early 2018 based on actual spend in 2017 and expected trends at that time. The pandemic created a different outcome most notably with CAP administrative costs. It is important to note, the USP Rider is projected yearly based on prior year actuals and expected trends and is not based on the projections filed with the USECP. The Rider USP is reconciled on a yearly basis.

	Approved Budget				Actual Spend		
	2019	2020	2021		2019	2020	2021
LIURP	$4,750,000	$4,875,000	$4,875,000		$5,228,706	$2,510,577	$3,463,108
Energy Assistance Outreach and Processing	$180,000	$180,000	$180,000		$141,326	$143,686	$159,121
CARES Community Outreach	$260,000	$260,000	$260,000		$262,013	$192,077	$164,315
CARES Total	$440,000	$440,000	$440,000		$403,339	$335,763	$323,436
CAP Administration and Applications	$1,300,000	$1,300,000	$1,300,000		$724,643	$726,617	$751,262
Shortfall	$20,442,928	$20,442,928	$20,442,928		$17,970,920	$14,619,229	$20,023,299
Arrearage Retirement	$975,247	$975,247	$975,247		$1,837,043	$1,054,724	$3,284,454
CAP Total	$22,718,175	$22,718,175	$22,718,175		$20,532,606	$16,400,570	$24,059,015
Hardship Funds	$675,000	$675,000	$675,000		$426,042	$487,716	$1,239,146
Hardship Administrative Costs	$34,000	$34,000	$34,000		$36,028	$29,543	$21,096
Total	$28,617,175	$28,742,175	$28,742,175		$26,626,721	$19,764,169	$29,105,801

*Approved budget is as reported in the current Approved USECP plan.

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-094-D:

Reference Revised USECP 2019-2023 as extended vide the Commission Order entered on January 16, 2020 (at Docket No. M-2018-2645401), provide the approved budgeted spending under this plan by program category LIURP, CARES, CAP, and Hardship Fund and by year for 2022 and 2023.

Response:
Please see the approved budget spending by year for 2022 and 2023 for Universal Service Programs as filed below.

	Approved Budget	
	2022	2023
LIURP	$4,875,000	$4,875,000
Energy Assistance Outreach and Processing	$180,000	$180,000
CARES Community Outreach	$260,000	$260,000
CARES Total	$440,000	$440,000
CAP Administration and Applications	$1,300,000	$1,300,000
Shortfall	$20,442,928	$20,442,928
Arrearage Retirement	$975,247	$975,247
CAP Total	$22,718,175	$22,718,175
Hardship Funds	$675,000	$675,000
Hardship Administrative Costs	$34,000	$34,000
Total	$28,742,175	$28,742,175

Columbia Gas of Pennsylvania, Inc.

COLUMBIA GAS OF PENNSYLVANIA, INC.
2022 RATE CASE PROCEEDING

Docket No. R-2022-3031211

Data Requests

BUREAU OF INVESTIGATION AND ENFORCEMENT INTERROGATORIES
Set RE

Question No. I & E RE-090-D:

Reference Columbia Statement No. 13, pp. 2-10 concerning the Hardship Fund program. Provide a breakdown of the Hardship Fund contributions for the fiscal year ended November 30, 2019, November 30, 2020, and November 30, 2021 broken down by category (i.e., voluntary ratepayer/utility employee contributions, fund raising activities, utility and shareholder contributions, supplier refunds, pipeline penalty credits, other campaign/programs etc.).

Response:

Please see the following chart for the requested data for fiscal year ending November 30th by category. Please Note: The Penalty Credit/Supplier Refunds are the funds provided to the administrator for distribution in that year. This is not the total amount of funds received by the Company as provided in Data Request I & E RE-089-D.

	Shareholder Funds	Customer Contributions	Fundraising Activity Proceeds	Penalty Credit/Supplier Refunds
November, 2021	$ 550,000	$ 65,000	$ 19,800	$ 375,000
November, 2020	$ 150,000	$ 65,000	$ 25,400	$ 375,000
November, 2019	$ 150,000	$ 82,000	$ 46,813	$ 375,000

I&E-RE-13-D
Attachment B
Page 1 of 1

Date	# of Vacancies	Date	# of Vacancies
12/31/2018	48	12/31/2020	52
1/31/2019	53	1/31/2021	59
2/28/2019	47	2/28/2021	60
3/31/2019	49	3/31/2021	47
4/30/2019	112	4/30/2021	46
5/31/2019	100	5/31/2021	41
6/30/2019	91	6/30/2021	44
7/31/2019	76	7/31/2021	51
8/31/2019	76	8/31/2021	60
9/30/2019	72	9/30/2021	65
10/31/2019	69	10/31/2021	69
11/30/2019	68	11/30/2021	56
12/31/2019	63	12/31/2021	60
1/31/2020	49	1/31/2022	53
2/29/2020	50	2/28/2022	51
3/31/2020	48		
4/30/2020	48		
5/31/2020	52		
6/30/2020	53		
7/31/2020	57		
8/31/2020	53		
9/30/2020	52		
10/31/2020	58		
11/30/2020	54		

I&E Statement No. 3-R
Witness: Ethan H. Cline

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Rebuttal Testimony

of

Ethan H. Cline

Bureau of Investigation and Enforcement

Concerning:

Cost of Service

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<u>INTRODUCTION</u>

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Ethan H. Cline. My business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. ARE YOU THE SAME ETHAN H. CLINE WHO SUBMITTED I&E STATEMENT NO. 3 AND I&E EXHIBIT NO. 3 ON JUNE 7, 2022?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to present a response to the direct testimony of Pennsylvania State University's ("PSU") witness James L. Crist, P.E. (PSU Statement No. 1) regarding cost of service.

Q. DOES YOUR REBUTTAL TESTIMONY INCLUDE AN EXHIBIT?

A. No.

<u>COST OF SERVICE</u>

Q. HOW DID THE COMPANY ALLOCATE THE PROPOSED REVENUE INCREASE?

A. As stated in my direct testimony, the Company used the results of the Peak & Average methodology when designing the proposed revenue requirement and rates (I&E St. No. 3, p. 11).

Q. DID YOU RECOMMEND UTILIZING THE PEAK AND AVERAGE COST OF SERVICE STUDY AS A GUIDE IN ALLOCATING THE FINAL REVENUE INCREASE AMONG THE VARIOUS CUSTOMER CLASSES?

A. Yes. I agreed with the Company's use of the Peak and Average methodology to allocate the cost of distribution plant and related expenses (I&E St. No. 3, p. 12).

Q. WHY IS THE PEAK AND AVERAGE METHODOLOGY THE MOST REASONABLE WAY TO ALLOCATE THE COST OF MAINS?

A. The Peak and Average methodology utilizes two factors to allocate the cost of mains, the peak flow and the average flow. This methodology recognizes that mains are used to deliver gas to customers and therefore main investments are based on the load rather than number of customers.

Q. DID ANOTHER PARTY SUBMIT DIRECT TESTIMONY CONCERNING COST ALLOCATION STUDIES?

A. Yes. PSU Witness Crist provided direct testimony recommending that the Commission reject the use of the Peak and Average methodology and instead use the Customer-Demand methodology, which utilizes a combination of peak day demands and customer counts to assign mains cost responsibility (PSU St. No. 1, p 18).

Q. WHAT WAS THE BASIS FOR MR. CRIST'S RECOMMENDATION THAT THE COMMISSION RELY ON A COMBINATION OF THE COMPANY'S TWO COST OF SERVICE STUDIES?

A. Mr. Crist's position is that the reason the Company chose the Peak and Average methodology to allocate costs and revenues in this base rate case was "not because the use of the peak and average study was a more accurate reflection of cost causation, but only because the Commission, in one recent case, expressed a preference for the peak and average study due to 'errors' in the customer-demand study." (PSU St. No. 1, pp. 11-12).

Q. WHAT RECENT CASE IS MR. CRIST REFERRING TO?

A. Mr. Crist is referring to the recent Columbia 2020 rate proceeding at Docket No. R-2020-3018835. The Administrative Law Judge's ("ALJ") Recommended Decision ("RD") stated that the customer-demand would be the preferred method were it not for errors. The Commission's Order ("2020 Columbia Order") entered February 19, 2021 held that it was not persuaded to reverse the ALJ's RD. The Commission concluded that it must, therefore, also support the customer-demand methodology apart from certain errors that were not included in the current proceeding (PSU St. No. 1, pp. 12-14).

Q. DO YOU AGREE WITH MR. CRIST'S ANALYSIS OF THE COMMISSION'S 2020 COLUMBIA ORDER?

A. No. Mr. Crist's analysis of the 2020 Columbia Order is inaccurate and misleading.

Q. WHY IS MR. CRIST'S ANALYSIS OF THE 2020 COLUMBIA ORDER INACCURATE AND MISLEADING?

A. Mr. Crist's analysis of the 2020 Columbia Order conveniently omits the rest of the Commission's discussion of the peak and average methodology. Specifically, Mr. Crist fails to recognize page 215 of the 2020 Columbia Order in which the Commission stated the following:

> Based on our review of the record, and as noted by the ALJ, we have consistently used the Peak & Average methodology for the allocation costs for NGDCs. In this regard, we find that the Customer-Demand method and the Average ACCOSS, which depends on the Customer-Demand methodology, would be inconsistent with Commission precedent and generally accepted principles for NGDCs because they both contain customer cost components.

The Commission also concluded on page 218 of the 2020 Columbia Order saying, "we find that the Peak & Average allocation methodology is the most appropriate allocation methodology to use in this proceeding because it is based on the premise of load-based investment." These statements from the 2020 Columbia Order refute what Mr. Crist claimed was the Commission's ruling.

Q. DID MR. CRIST PROVIDE ANY OTHER RATIONALE FOR SUPPORTING THE CUSTOMER-DEMAND METHODOLOGY?

A. Mr. Crist's rationale for supporting the customer-demand methodology is his claim that the Company uses delivery pressure as the only data used in gas main design and sizing (PSU St. No. 1, pp. 15-17).

Q. DO YOU AGREE WITH MR. CRIST'S POSITION THAT THE CUSTOMER-DEMAND METHODOLOGY SHOULD BE THE PREFERRED METHOD FOR COST ALLOCATION?

A. Not at all. Mr. Crist's insistence that costs should be allocated based on the customer-demand methodology because of how the Company stated the system is designed is not consistent with the Commission's historic determination of cost causality.

Q. IS MR. CRIST'S BELIEF SUPPORTED BY THE COMMISSION?

A. No. The Commission stated on page 217 of the 2020 Columbia Order that "we remain of the opinion that although mains serve customers, it is the throughput that determines the type of main investment, not the number of customers served."

Q. IF MR. CRIST'S POSITION IS ACCEPTED, WILL THE CONCEPT OF COST CAUSATION BE VIOLATED AND WHO WILL ULTIMATELY BEAR THE COSTS THAT HIS CLIENT IS TRYING TO AVOID?

A. No. I agree with Mr. Crist's statement on page 8 of PSU Statement No. 1 that the principle of cost causation "may not be violated just because some customers do not like bearing the costs or want to lessen the impact of the cost of the benefits they receive at the expense of others, nor may it be violated because a utility wishes to benefit one customer class at the expense of others." However, as described above, Mr. Crist's position does, in fact, violate the principle of cost causation for the reasons stated by the Commission. Mr. Crist's recommendation would shift costs away from his client in order to lessen the impact of the cost of the benefits they receive at the expense of the other customers on the system, which is unfair to those customers that will bear the cost.

Q. SHOULD THE RECOMMENDATION OF MR. CRIST BE ACCEPTED BY THE COMMISSION?

A. No. The Commission should not reverse itself and has previously reflected the proper recognition that distribution mains are built on the basis of year-round demands as well as peak demands. Mr. Crist did not provide any reasonable rationale to accept a methodology that the Commission rejected recently.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

I&E Statement No. 1-SR
Witness: D. C. Patel
NON-PROPRIETARY

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Surrebuttal Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES

ENERGY EFFICIENCY PLAN

STATE INCOME TAX EXPENSE

TABLE OF CONTENTS

<u>INTRODUCTION</u>

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is D. C. Patel, and my business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

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

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. ARE YOU THE SAME D. C. PATEL WHO SUBMITTED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted I&E Statement No. 1 PROPRIETARY, I&E Exhibit No. 1 PROPRIETARY, I&E Statement No. 1 NON-PROPRIETARY, I&E Exhibit No. 1 NON-PROPRIETARY, I&E Statement No. 1-R, and I&E Exhibit No. 1-R.

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN ACCOMPANYING EXHIBIT?

A. No. However, I refer to my direct testimony and its accompanying exhibit in this surrebuttal testimony (I&E Statement No. 1 and I&E Exhibit No. 1).

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to Columbia Gas of Pennsylvania, Inc's. (Columbia or Company) rebuttal testimonies of the following witnesses:

- Kelley K. Miller (Columbia Statement No. 4-R) regarding Columbia's revised revenue requirement and operating and maintenance (O&M) expenses.
- Nicole M. Paloney (Columbia Statement No. 9-R) regarding O&M expenses.
- Jennifer Harding (Columbia Statement No. 10-R) regarding payroll taxes.
- Nicholas Bly (Columbia Statement No. 15-R) regarding employee benefits expense.
- Kimberly Cartella (Columbia Statement No. 17-R) regarding incentive compensation, stock rewards, and profit-sharing expense.
- C. J. Anstead (Columbia Statement No. 14-R) regarding other adjustment for safety initiatives expenses.
- Theodore M. Love (Columbia Statement No. 16-R) regarding Energy Efficiency Plan.

Additionally, I will address a recent Pennsylvania law change regarding state income tax expense.

Q. HAS COLUMBIA UPDATED ITS OVERALL REVENUE REQUIREMENT CLAIM IN REBUTTAL TESTIMONY?

A. Yes. The Company updated its revenue increase requirement from $82,151,953 to $83,512,136 by revising its total O&M expense claim from $245,615,375 to $246,958,501 and consequential changes in the income tax for the fully projected future test year (FPFTY) ending December 31, 2023 (Columbia Exhibit KKM 1-R, p. 1 (Columbia Exhibit No. 102, Schedule 3, p. 3-Revised). However, Columbia is not seeking the updated/revised revenue increase requirement and continues to request an increase of $82,151,953 (Columbia Statement No. 4-R, p. 2).

Q. HAS THE COMPANY ACCEPTED ANY OF YOUR RECOMMENDED ADJUSTMENTS FROM DIRECT TESTIMONY?

A. Yes. The Company witnesses accepted my recommended O&M expense adjustments as follows:

- Kelley K. Miller has reduced the FPFTY COVID-19 Deferral amortization claim by $304,000 as recommended to rectify the billing system error that resulted in overstatement of this expense claim. Additionally, Columbia witness Ms. Miller confirmed that Columbia has ceased recording any new COVID-19 related expense deferrals as of the effective date of rates in its last rate case (Columbia Statement No. 4-R, pp. 10-11).

- C. J. Anstead has accepted my recommendation to remove the one-time start-up cost of $620,000 from the Picarro Leak Detection System program expense claim of $10,900,000 included in the Other Adjustments expense claim of $15,813,021 (Columbia Statement No. 14-R, p. 6).
- Kelley K. Miller has accepted my recommendation to remove a customer education expense claim of $33,500 included in the Other Adjustments expense claim of $15,813,021 pertaining to the Renewable Natural Gas (RNG) choice under the proposed Green Path Rider, a separately docketed application (at Docket No. R-2022-3032167) (Columbia Statement No. 4-R, p. 3).

BASE RATE CASE IMPACT ON CUSTOMERS' RATES

Q. SUMMARIZE YOUR DISCUSSION IN DIRECT TESTIMONY CONCERNING THE BASE RATE CASE IMPACT ON CUSTOMERS.

A. I discussed the base rate case impact on customers in light of the consistent increase in base rates since 2013 because the Company has filed eight base rate cases in a span of the last eleven years (I&E Statement No. 1, p. 3). Additionally, Columbia has planned a total of $3,903.80 million in capital investments over ten years (2022-2031) at an annual average of $390.38 million, which would likely require the Company to file a rate case every year. This would continue to increase customers' rates year after year (I&E Statement No. 1, pp. 4-5). Lastly, Columbia's current average monthly rate (without the proposed increase in this proceeding) is higher than four other natural gas distribution companies (I&E Statement No. 1, p. 6).

In short, I presented the above analysis to call attention to the fact that Columbia has not considered the impact of the rate increase proposed in this filing nor considered the historic rate increases' impact on customers and the future potential rate increase scenario (I&E Statement No. 1, p. 6).

Q. DID ANY WITNESS RESPOND OR ACKNOWLEDGE YOUR DISCUSSION ABOUT THE BASE RATE CASE IMPACT ON CUSTOMERS' RATES?

A. No. Columbia might have considered this analysis of rate impact as irrelevant in the context of this base rate case proceeding. However, I believe it is an important consideration in the interest of ratepayers in this proceeding.

<u>SUMMARY OF RECOMMENDED ADJUSTMENTS</u>

Q. PLEASE SUMMARIZE YOUR RECOMMENDED ADJUSTMENTS AS UPDATED IN THIS SURREBUTTAL TESTIMONY.

A. As illustrated in the following table and in the discussion that follows, I continue to recommend adjustments as updated to O&M expenses:

	Updated Company Claim	Updated I&E Recommended Allowance	Updated I&E Adjustment
O&M Expenses and Taxes:			
Rate Case Expense	$1,254,200	$694,387	($559,813)
Payroll Expense	$36,719,966	$35,648,708	($1,071,258)
Incentive Compensation	$2,570,000	$1,425,948	($1,144,052)
Employee Benefits	$7,923,000	$7,006,622	($916,378)
Payroll/FICA Taxes	$2,867,303	$2,705,634	($161,669)
Outside Services	$29,660,205	$27,574,732	($2,085,473)
Injuries and Damages	$348,384	$311,042	($37,342)
Advertisement Expense	$683,312	$648,468	($34,844)
NCSC Allocated Compensation	$6,380,000	$2,541,870	($3,838,130)
Total O&M Expense Adjustments			**($9,848,959)**
State Income Tax Expense	$9,531,758	$5,444,504	($4,087,254)
Total State Income Tax Adjustments	$9,531,758	$5,444,504	**($4,087,254)**

SUMMARY OF OVERALL I&E UPDATED POSITION

Q. WHAT IS I&E'S TOTAL UPDATED RECOMMENDED REVENUE REQUIREMENT?

A. I&E's total recommended revenue requirement for the Company is $851,291,177. This recommended revenue requirement represents an increase of $36,785,738 to the Company's claimed present rate revenues of $814,505,439 to be recovered in new rates effective January 1, 2023 (the first day of the FPFTY). This total recommended allowance incorporates my adjustments made in this testimony to

O&M expenses, and those recommended adjustments made in the surrebuttal testimony of I&E witness Christopher Keller (I&E Statement No. 2-SR). A calculation of the I&E recommended revenue requirement is shown below:

Columbia Gas of PA, Inc.		TABLE I			
R-2022-3031211		INCOME	SUMMARY		
	12/31/23	INVESTIGATION & ENFORCEMENT			
	Proforma	[--			
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	814,505,439	0	814,505,439	36,785,738	851,291,177
Deductions:					
O&M Expenses	482,124,699	-9,687,290	472,437,409	461,304	472,898,713
Depreciation	116,724,231	0	116,724,231		116,724,231
Taxes, Other	3,580,973	-161,669	3,419,304	0	3,419,304
Income Taxes:					
Current State	1,293,517	885,420	2,178,937	3,265,567	5,444,504
Current Federal	9,841,282	1,882,343	11,723,625	6,942,362	18,665,987
Deferred Taxes	20,770,893	0	20,770,893		20,770,893
ITC	-221,354	0	-221,354		-221,354
Total Deductions	634,114,241	-7,081,196	627,033,045	10,669,233	637,702,278
Income Available	180,391,198	7,081,196	187,472,394	26,116,505	213,588,899
Rate Base	2,958,295,013	0	2,958,295,013	0	2,958,295,013
Rate of Return	6.10%		6.34%		7.22%

<u>Effective Date of New Rates</u>:

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR EFEECTIVE DATE OF NEW RATES.

A. In direct testimony, I recommended that Columbia voluntarily make the new rates effective January 1, 2023 (the first day of the FPFTY) instead of on December 17, 2022, to avoid any unreasonable and unjustified rate impact on ratepayers (I&E Statement No. 1, p. 11). As discussed in direct testimony, my recommendation is more appropriate, fair, and logical in the interest of customers because the ratemaking calculation (projection) for new rates includes the 12-month FPFTY beginning January 1, 2023 and not beginning December 17, 2022 (I&E Statement No. 1, pp. 9-11).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Nicole M. Paloney disagrees with my recommendation to voluntarily make the new rate effective January 1, 2023, the first day of the FPFTY (Columbia Statement No. 9-R, pp. 3-4).

Q. PLEASE SUMMARIZE MS. PALONEY'S RESPONSE.

A. First, Ms. Paloney expressed her view that it is not clear how costs associated for the period December 17, 2022 through December 31, 2022 can be considered unsupported and unreasonable as they were subject to the same prudency review for costs that may be incurred after January 1, 2023. Additionally, she states that the Company's data for the FTY ended November 30, 2022 produces a revenue deficiency at the Company's proposed rate of return, as shown on Exhibit No. 102, Schedule 3, page 3. (Columbia Statement No. 9-R, p. 4). Second, Ms. Paloney asserts that per counsel advice, Columbia is under no obligation to delay the implementation of new rates in the case as filed beyond the effective date mandated by Section 1308(d) of the Public Utility Code (Columbia Statement No. 9-R, p. 4).

Q. WHAT IS YOUR RESPONSE TO MS. PALONEY'S ASSERTION?

A. First, I disagree with Columbia's assertion that costs associated for the period December 17, 2022 through December 31, 2022 are supported and reasonable because they were subject to the same prudency review for costs that may be incurred after January 1, 2023. As discussed in my direct testimony, I reiterate that the revenue requirement calculations in this rate filing are based on full year projections or changes that would occur in the FPFTY 12-month period January 1, 2023 through December 31 2023 and not for the 15-day period December 17, 2022 through December 31, 2022 (I&E statement No. 1, pp. 10-11). Columbia stated that by statute, the FPFTY should be the 12-month period *beginning with the first month that new rates will be placed into effect after the full suspension period* and the full statutory suspension period concludes in December 2022 (I&E Exhibit No. 1, Schedule 2, pp. 2-3). Therefore, in the light of true compliance to this statement, Columbia should voluntarily agree to make new rates effective January 1, 2023. Also, I disagree with Ms. Paloney's argument that the Company's data for the FTY ended November 30, 2022 produces a revenue deficiency at the Company's proposed rate of return. The proposed new rates are built on the basis of the FPFTY and not the FTY revenue deficiency and the FTY 2022 revenue deficiency was considered in the 2021 base rate case. Considering the above, it would be unfair and unreasonable for Columbia to make new rates effective on December 17, 2022 instead of January 1, 2023.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR THE NEW RATES EFFECTIVE DATE ?

A. No. I recognize that Columbia is not willing to push the effective date of new rates; however, I continue to recommend that Columbia voluntarily make the new rates effective January 1, 2023 (the first day of the FPFTY) instead of on December 17, 2022, to avoid any unreasonable and unjustified rate impact on ratepayers.

<u>RATE CASE EXPENSE</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR RATE CASE EXPENSE.

A. I recommended the Company's total rate case expense first be adjusted based on the 2020 fully litigated rate case actual expense and then normalized over a period of 16 months resulting in the FPFTY allowance of $694,387 (($adjusted expense of $925,850 ÷ 16 months) x 12 months), or a reduction of $559,813 ($1,254,200 - $694,387) to the Company's claim (I&E Statement No. 1, p. 13). My recommendation was comprised of two parts: (1) adjusting rate case expense based on the 2020 fully litigated rate case actual expense; and (2) normalizing the adjusted rate case expense over a period of 16 months based on Columbia's historic rate case filing frequency in contrast to Columbia's claimed 12-month normalization period as discussed in my direct testimony (I&E Statement No. 1, pp. 13-19).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Kelley K. Miller disagrees with my recommended adjustment to rate case expense (Columbia Statement No. 4-R, pp. 4-5).

Q. PLEASE SUMMARIZE MS. MILLER'S RESPONSE.

A. First, Ms. Miller disagrees with my recommended 16-month normalization period in contrast to the Company's 12-month normalization period for rate case expense because Columbia continues to anticipate the need to file annual rate cases for the foreseeable future, and in the last two base rate cases, a one-year normalization period was proposed, and the rate cases were filed within 12 months of each other (Columbia Statement No. 4-R, p. 5). Second, she confirms that Columbia's budgeted expenses for this rate case reflect anticipated costs for a fully litigated case. She then asserts that basing a rate case expense adjustment on only one historical occurrence, the 2020 litigated base rate case, is inappropriate and not reflective of the level of expenses that are expected, because during the COVID-19 pandemic, no travel expense was incurred and the filing of hard copy versions to all parties were not required (Columbia Statement No. 4-R, p. 5).

Q. WHAT IS YOUR RESPONSE TO MS. MILLER'S ASSERTIONS?

A. First, I disagree with Ms. Miller because the Commission has cited in several base rate cases to the importance of considering the involved utility's historic filing frequency as an essential element to determine the normalized level of rate case expense for ratemaking purposes (I&E Statement No. 1, pp. 17-18). The Company's proposed normalization period fails to properly rely upon the historic data of three filing intervals instead of relying on the last two rate case filings (I&E Statement No. 1, pp. 15-16). Additionally, Columbia's anticipated need to file annual rate cases for the foreseeable future is speculative in nature and is not supported by the historic filing intervals as shown in my direct testimony (I&E Statement No. 1, p. 15). Furthermore, as discussed in my direct testimony, the outcome of PPL Electric's claimed 24-month normalization period in 2012 supports my recommendation. In that proceeding, PPL Electric's claim was based on the expected timing of future base rate case filings, where PPL did not file its next rate case until March 31, 2015, which was 36 months after the 2012 rate case filing (I&E Statement No. 1, pp. 15-16).

Second, I disagree with Ms. Miller that basing a rate case expense adjustment on only one historical occurrence, the 2020 litigated base rate case, is inappropriate and not reflective of the level of expenses to be incurred. In my direct testimony I presented Columbia's budgeted/claimed versus actual rate case expense for the last three rate cases and there was only one litigated rate case (2020) that depicted a 73.82% actual expense incurred as compared to the budgeted claim, while two other cases were settled. Therefore, it is more appropriate and reasonable to base the 2022 rate case expense allowance on the 2020 actual expense (at 73.82%) since it is the most recently litigated rate case. Ms. Miller's argument that Columbia incurred lower travel expenses and the waiver of filing hard copy versions due to the pandemic resulted in lower actual rate case expense in 2020 is not a supported and acceptable basis because these expenses were negligible in proportion to the other categories of rate case expense, and this proceeding is occurring under the same electronic filing and telephonic hearing basis as that 2020 rate case. The total actual rate case expense per the comparative data is provided below:

	R-2018-2647577 Actual	**R-2020-3018835 Actual**	**R-2021-3024296 Actual**	**R-2022-3031211 Claimed**
Travel Expenses	$9,224	$1,085	$0	$5,000
Miscellaneous Expense	$13,259	$1,126	$0	$25,000
Other Categories	$589,103	$780,311	$529,623	$1,224,200
Total Rate Case Expense	$611,586	$782,522	$529,623	$1,254,200

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR RATE CASE EXPENSE?

A. No. I continue to recommend basing the FPFTY rate case expense allowance on the basis of 2020 actual rate case expense and then applying a 16-month normalization period to the adjusted expense.

PAYROLL EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR PAYROLL EXPENSE.

A. In direct testimony, I recommended an allowance of $35,648,708 for payroll expense, or a reduction of $1,071,258 ($36,719,966 - $35,648,708) to the Company's claim (I&E Statement No. 1 p. 20). As discussed in direct testimony, my recommendation was comprised of two parts: (1) removing the annualization adjustment of $444,966 for the normal pay increases to be paid after the end of the FPFTY 2023; and (2) a payroll expense adjustment of $626,292 for vacant/unfilled positions due to unpredictable normal vacancies, which occur due to retirements, resignations, transfers, etc. throughout the year (I&E Statement No. 1, pp. 20-25).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Kelly K. Miller disagrees with my recommendation for removal of the FPFTY payroll annualization adjustment of $444,966 (Columbia Statement No. 4-R, pp. 6-8) and Columbia witness Nicole M. Paloney disagrees with my recommended payroll expense adjustment of $626,292 for normal employee vacancies (Columbia Statement No. 9-R, pp. 5-7).

Q. PLEASE SUMMARIZE MS. MILLER'S RESPONSE REGARDING YOUR PAYROLL ANNUALIZATION ADJUSTMENT.

A. Ms. Miller states that labor expenses, as well as other expenses, are adjusted by normalizing and annualizing expenses for ratemaking purposes, to reflect a full year of expenses to conform to the revenue and expense matching principle (Columbia Statement No. 4-R, p. 6). She cites an example stating the pay increases for exempt employees are anticipated to be effective March 1 2023; the annualization adjustment for these employees effectively increases the expense to reflect this wage increase to be effective January 1, 2023 and thus reflecting the entire test year at the level of wages that would be in effect at the end of the test period (Columbia Statement No. 4-R, p. 6).

Q. WHAT IS YOUR RESPONSE TO MS. MILLER'S ASSERTION?

A. I agree that the FPFTY expense claim should conform to the revenue and expense matching principle. Columbia has different effective dates for pay increases by employee class/unions in the FPFTY, and therefore, the *Company is not incurring or paying the portion of pay increases that is built in payroll annualization adjustment during the 12-month period of the FPFTY*. Contrary to what the Company contends, allowing a pay increase annualization in the FPFTY for an increase with an effective date after the end of that period would enable Columbia to collect excess revenue via new rates in the FPFTY. This proposed method is actually in conflict with the revenue and expense matching principle.

Per Ms. Miller's example, the exempt employees' pay increase will be effective March 1, 2023. It is relevant to note that Ms. Miller cites only to the one pay increase that is reflected to occur in the FPFTY, which would qualify for annualization based on the matching principle, but she totally ignores the pay increases the Company has included that occur after the end of the FPFTY. Thus, with the pay increase annualization as the Company has claimed, the payroll expense claim is inflated/overstated for the portion attributable to January and February 2024 pay increases, because Columbia is not liable to pay or incur any portion of those pay increase in the FPFTY. If the pay increase annualization is allowed in the FPFTY ratemaking calculation, Columbia will recover a portion of the 2024 pay increase in FPFTY rates, which is unreasonable, unsupported, and violates ratemaking revenue and expense matching principles.

As discussed in my direct testimony, the post-FPFTY pay increase annualization adjustment would result in an unfair and unreasonable burden on ratepayers by establishing or allowing an expense recovery in its revenue requirement that is not reflective of the actual FPFTY expense level (I&E Statement No. 1, pp. 20-21).

Q. PLEASE SUMMARIZE MS. PALONEY'S RESPONSE REGARDING YOUR RECOMMENDED EMPLOYEE VACANCY ADJUSTMENT.

A. Ms. Paloney disagrees with my vacancy adjustment because, she opines, my recommendation was based on an incorrect assumption that the Company's payroll expense claim is based upon a full authorized complement of employees. She then states that in past cases the Company has made its labor expense claim based upon its full authorized complement of employees, and thus had included vacant positions in the employee complement and the Company has now changed its approach in this case. Therefore, the employee headcount in the current case is not inclusive of vacancies, whereas in past cases, the employee headcount included vacancies (Columbia Statement No. 9-R, p. 6). Considering the above, Ms. Paloney asserts that the budgeted labor expenses already take into consideration employee vacancies and the vacant authorized positions will not result in savings in the budgeted claim (Columbia Statement No. 9-R, p. 7).

Q. WHAT IS YOUR RESPONSE TO MS. PALONEY'S ASSERTION?

A. Ms. Paloney puts forward new information that the Company's FPFTY employee complement (total headcount) of 782 in the current case is not inclusive of vacancies in this case. However, she did not support or provide information about the number of vacancies and related payroll expense adjusted in the total budgeted FPFTY payroll expense claim. Per SDR-GAS-RR-026, the FPFTY headcount is shown as 782, and in the next line, budgeted payroll expense claim of $36,719,966 is identified with reference to the total headcount of 782. In the absence of specific information about a payroll expense adjustment for vacancies and the number of vacancies considered/assumed in the ratemaking calculation, it is not possible to reconcile/verify the payroll expense claim as described by Ms. Paloney. Additionally, the HTY and FTY head count and payroll expense should be reconciled with the FPFTY information.

Therefore, as discussed in my direct testimony, my recommendation based on Columbia's historic average vacancy rate of 54 (which produced a 6.90% vacancy rate: Average Vacancy Rate of 54 ÷ FPFTY budgeted employee count of 782) vacant positions in the FPFTY is reasonable and appropriate (I&E Statement No. 1, pp. 21-24). Lastly, I reiterate that it is important to note that normal vacancies due to retirements, resignations, transfers, layoffs, etc., on a day-to-day operating basis are unpredictable, and there will always be search and placement time involved in filling normal vacancies, which Columbia estimates approximately 8 weeks to 16 weeks for filling vacant positions depending on the timing of the vacancies, the number of applicants, and other variables (I&E Exhibit No. 1, Schedule 4, p. 6).

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR PAYROLL EXPENSE?

A. No. I continue to recommend removal of the FPFTY payroll expense annualization adjustment of $444,966 and a vacancy adjustment of $626,292 to the FPFTY payroll expense claim.

INCENTIVE COMPENSATION

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR INCENTIVE COMPENSATION.

A. In direct testimony, I recommended an allowance of $1,425,948 for incentive compensation, or a reduction of $1,144,052 ($2,570,000 - $1,425,948) to the Company's claim (I&E Statement No. 1, p. 27). As discussed, my recommendation was based on a historic average actual payout factor of 4.00% on the FPFTY total payroll expense in contrast to the Company's claimed speculative target of a 7.00% payout factor (I&E Statement No. 1, pp. 27-29).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Kimberly Cartella disagrees with my recommendation to adjust the FPFTY incentive compensation claim (Columbia Statement No. 17-R, p. 3).

Q. PLEASE SUMMARIZE MS. CARTELLA'S RESPONSE.

A. First, Ms. Cartella states that incentive compensation expense is calculated on the anticipated base salary of employees during the period and the assumption of achieving the target performance levels described in the incentive plan, which is the anticipated level of achievement (Columbia Statement No. 17-R, p. 3). Second, Ms. Cartella objects to my recommendation to apply the Company's average incentive **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}** in contrast with the Company's claimed target level of a 7.00% incentive compensation pay out factor on total payroll expense (Columbia Statement No. 17-R, p. 3). She then presented a table showing the last three years' payout factor that calculates an average payout factor of 4.92% (Columbia Statement No. 17-R, p. 5).

Q. WHAT IS YOUR RESPONSE TO MS. CARTELLA'S ASSERTION?

A. First, I am not disputing Ms. Cartella's statement that the incentive compensation expense claim is calculated on the anticipated base salary of employees during the period and *the assumption of achieving the anticipated target performance levels described* in the incentive plan. However, it is equally important to consider historic actual incentive compensation versus the budgeted expense claim to ascertain reasonableness of the FPFTY claim in the ratemaking calculation because the actual incentive payment occurs when *the anticipated target performance levels are achieved* per the incentive plan. The following table shows Columbia's budget versus its revised actual incentive compensation data presented by Columbia witness Nicole M. Paloney (Columbia Exhibit NP 7-R, pp. 1-3 contained in Columbia Statement No. 9-R):

	2019	**2020**	**2021**
Budget	$1,133,000	$2,676,000	$2,946,000
Actual	$1,246,000	$1,687,000	$2,676,000
Over/(under) spent expense	$113,000	($989,000)	($270,000)
Over/(under) spent expense %	9.97%	(36.96%)	(9.16%)

Second, I would like to clarify that Ms. Cartella's historic incentive payout factor of 4.92% is calculated based on 2021 incentive compensation of $2,464,604

(Columbia Statement No. 17-R, p. 5, ln. 4) while I used the 2021 normalized incentive expense of $1,186,045 as presented in SDR-GAS-RR-026, which produced my calculated average payout factor of 3.95% (rounded to 4.00%) (I&E Statement No. 1, p. 27). Additionally, the Company has applied **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}** on additional labor expense for determining the related additional benefits expense, claimed in other adjustments per the details provided in response to I&E-RE-66-D, Attachment A (I&E Exhibit No. 1, Schedule 5, p. 6).

Lastly, as discussed in my direct testimony, achievement of financial triggers for the incentive payout were $1.25 NOEPS for 2021 and $1.38 NOEPS for 2022 (dependent on the Company's or parent company financial performance), and Cash-Based Award Programs which accounts for 70% weight and only 30% of the incentive compensation would be paid independent of meeting the financial performance goals (I&E Statement No. 1, p. 28 and I&E Exhibit No. 1, Schedule 5, p. 8). Per Ms. Cartella's Exhibit KKC 1-R, 80% weight was assigned to achievement of the financial goals for the 2019-2021 incentive plan and 50% weight is assigned to achievement of the financial goals for the 2021-2023 incentive plan. The achievement of financial goals is speculative and contingent on overall financial performance of the Company. Therefore, it is speculative to estimate the FPFTY incentive compensation expense when the financial performance of the Company is linked to the incentive payment (I&E Statement No. 1, p. 28). Thus, my recommendation calculated **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}** on base payroll expense is appropriate and reasonable in contrast to Columbia's speculative 7.00% payout factor.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR INCENTIVE COMPENSATION?

A. No. I continue to recommend an adjustment in incentive compensation claim based on the more reasonable **{BEGIN PROPRIETARY}** [redacted] **{BEGIN PROPRIETARY}.**

<u>**EMPLOYEE BENEFITS EXPENSE**</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR EMPLOYEE BENEFITS.

A. In direct testimony, I recommended an allowance of $7,006,622 for benefits expense, or a reduction of $916,378 ($7,923,000 - $7,006,622) to the Company's claim (I&E Statement No. 1, p. 30). As discussed in my direct testimony, my recommendation is comprised of three parts: (1) removal of the profit-sharing cost of $373,920 from benefits expense; (2) an adjustment to the remaining benefits expense claim of $7,549,080 ($7,923,000 - $373,920) based on **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}**; and (3) an adjustment for 54 employee vacancies as discussed in the payroll section (I&E Statement No. 1, pp. 31-34).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Kimberly Cartella disagrees with my recommendation to remove profit-sharing expense from the FPFTY employee benefits expense claim (Columbia Statement No. 17-R, pp. 7-8). Columbia witness Nicholas Bly disagrees with my recommendation to apply a **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}** to determine the FPFTY employee benefits expense allowance (Columbia Statement No. 15-R, p. 2). Columbia's witnesses did not specifically respond to the adjustment to benefits expense as result of my recommended vacancy adjustment to payroll expense. However, Nicole M. Paloney rejected the vacancy adjustment in the payroll section above (Columbia Statement No. 9-R, pp. 5-7).

Q. PLEASE SUMMARIZE MS. CARTELLA'S RESPONSE CONCERNING PROFIT SHARING EXPENSE.

A. Ms. Cartella states that as part of the total rewards package, profit sharing is an element of the Company's 401(k)/Retirement Savings Plan, not the Omnibus Incentive Plan, and supports all employees' saving for retirement and not just certain high-level executives are eligible for the 401(k)/Retirement Savings Plan. The Company's contributions for Profit Sharing are deposited into employees' 401(k) accounts, which provide an important element of employee savings (Columbia Statement No. 17-R, p. 8).

Q. WHAT IS YOUR RESPONSE TO MS. CARTELLA?

A. I accept Ms. Cartella's response because the profit-sharing plan supplements employees' contributions to their retirement accounts and the traditional defined benefit plans are no longer offered to exempt new hires on or after January 1, 2010, and non-exempt new hires on or after January 1, 2013 (Columbia Statement No. 17-R, p. 8). Therefore, I withdraw my recommendation to remove profit-sharing expense of $373,920.

Q. PLEASE SUMMARIZE MR. BLY'S RESPONSE CONCERNING BENEFITS EXPENSE.

A. Mr. Bly disagrees with my recommendation to adjust benefits expense based on the **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}**. He then states that Columbia underspent in 2020 and 2021 benefits expense due to COVID-19 pandemic impacts. He also presented the AON Hewitt (a Human Resource Consulting Services) COVID-19 Impact Summary for NiSource regarding the impact of COVID-19 on healthcare costs as an exhibit (Columbia Statement No. 15-R, p. 2 and Exhibit NB 1-R, p. 2).

Q. WHAT IS YOUR RESPONSE TO MR. BLY'S ASSERTION?

A. AON's one page note states that health care data showed a decrease in medical costs from 2019 to 2020 due to suppression in medical claim activities because of the COVID-19 impact, and now medical claims have bounced back to pre-pandemic level. Economy-wide inflation will likely drive-up wages in the healthcare sector and may drive up negotiated prices as contracts are renegotiated with an increase in medical costs. AON's comment does not specify or present any specific percentile increase in medical costs nor include any supporting analysis for a speculative increase in medical costs due to inflationary wage increases in the healthcare sector.

As discussed in my direct testimony, Columbia's 2019-2021 average benefits expense to payroll expense factor was 18.91% ((19.18 +18.45 +19.10) ÷ 3), and the Company underspent its budgeted benefits expense in the last three years as shown in my direct testimony (I&E Statement No. 1, p. 32) and in Columbia's rebuttal testimony (Columbia Exhibit NP 7-R, pp. 1-3 contained in Columbia Statement No. 9-R). Therefore, my recommendation which is based on a **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}** (I&E Exhibit No. 1, Schedule 5, p. 6) is more appropriate and reasonable in contrast to the Company's FPFTY claimed 22.53% benefits expense factor.

Q. DO YOU HAVE ANY CHANGES TO YOUR REDUCTION IN BENEFITS EXPENSE RELATED TO YOUR RECOMMENDED VACANCY ADJUSTMENT?

A. No. Since I disagree with Ms. Paloney's response to the vacancy adjustment discussed in the payroll section above, I offer no change in my recommendation for the corresponding adjustment to benefits expense (I&E Statement No, 1, p. 33).

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR EMPLOYEE BENEFITS EXPENSE?

A. No. The calculation of my recommendation for employee benefits expense adjustment and allowance are summarized in the table below:

1. FPFTY Employee Benefits Expense Claim	$7,923,000
2. Adjustment for Removal of Profit-Sharing Expense	$0
3. FPFTY Employee Benefits Expense Claim	$7,923,000
4. I&E Benefits Expense allowance at 20% of Payroll Expense Allowance of $35,648,708	$7,129,742
5. Adjustment for Benefits Expense (4 - 3)	($793,258)
6. Adjustment for Employee Vacancies	($123,120)
7. Total Adjustment to Benefits Expense (5 + 6)	**($916,378)**
8. FPFTY Benefits Expense Allowance (3 – 7)	$7,006,622

<u>PAYROLL/FICA TAXES</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR PAYROLL/FICA TAXES.

A. In direct testimony, I recommended an allowance of $2,705,634 for FICA tax expense, or a reduction of $161,669 ($2,867,303 - $2,705,634) to the Company's claim (I&E Statement No. 1, p. 35). My recommendation was based on applying the Company's experienced FICA tax rate of 7.2978% to my recommended payroll expense adjustment of $1,071,258 and incentive compensation adjustment of $1,144,052 (I&E Statement No. 1, p. 35).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Jennifer Harding disagrees with my recommendation for payroll/FICA taxes (Columbia Statement No. 10-R, p. 3).

Q. PLEASE SUMMARIZE MS. HARDING'S RESPONSE.

A. Ms. Harding states that since Columbia witness Ms. Miller disputes the reduction in payroll expense, the Company also disputes the associated decrease in payroll tax expense (Columbia Statement No. 10-R, p. 3).

Q. WHAT IS YOUR RESPONSE TO MS. HARDING?

A. Since I am not changing my recommended adjustments to payroll expense and incentive compensation as discussed above, I do not accept Ms. Harding's assertion.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR PAYROLL/FICA TAXES?

A. No. I have no changes to my recommended adjustment to payroll/FICA taxes.

<u>OUTSIDE SERVICES</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR OUTSIDE SERVICES.

A. In direct testimony, I recommended an allowance of $27,574,732 or a reduction of $2,085,473 ($29,660,205 - $27,574,732) for outside services expense (I&E Statement No. 1, p. 37). As discussed in my direct testimony, my recommendation was based on the HTY actual expense after an adjustment for an increase in expenses for known new/additional program costs and removal of the blanket inflation adjustment of 3.00% in the FTY and FPFTY outside services claim (I&E Statement No. 1, p. 37-39).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Nicole M. Paloney disagrees with my recommended adjustment to outside services (Columbia Statement No. 9-R, pp.10-11 and pp. 15-16).

Q. PLEASE SUMMARIZE MS. PALONEY'S RESPONSE.

A. Ms. Paloney rejects my recommended adjustment to remove the recognition of inflation included in the outside services budget and states that during the preparation of rebuttal testimony, the Company determined that changes were needed to update the historic budgeted actual outside services for 2020 and 2021 in Columbia Exhibit NP-1 attached to her direct testimony (Columbia Statement

No. 9). Therefore, she presented a revised Exhibit NP 7-R as the changes were the result of incorrect data pulled from the system at the time the schedule was created. (Columbia Statement No. 9-R, pp. 15). Accordingly, she presented a revised table of historic variance in budget v. actual expense, which now shows a lower underspent variance of 3.22% and 6.98% as compared to the originally filed data of underspent variance of 29.56% and 15.16% for the fiscal years 2020 and 2021 respectively (Columbia Statement No. 9-R, pp. 15):

	Budgeted Expense	Actual Expense	Underspent	% Underspent
2018	$22,634,000	$21,352,000	($1,282,000)	(5.66%)
2019	$23,453,000	$22,850,000	($603,000)	(2.57%)
2020	$22,167,000	$21,453,000	($714,000)	(3.22%)
2021	$26,529,000	$24,677,000	($1,852,000)	(6.98%)

Q. WHAT IS YOUR RESPONSE TO MS. PALONEY'S ASSERTION?

A. It is concerning to note that the Company is revising the historic budgeted and actual outside services expense that produced a low underspent variance as compared to the originally filed data. This revised information still shows outside services expense underspent amounts of $714,000 in 2020 and $1,852,000 in 2021. Columbia witness Ms. Paloney did not specifically respond to my adjustment to remove blanket inflation increases from the HTY to FTY and the FTY to FPFTY claims. However, she discussed in general the need for an inflation adjustment in response to the OCA witness's recommendation.

As discussed in my direct testimony, I disagree with the blanket inflation adjustment of 3% to the FTY and FPFTY claims and reiterate that there is no breakdown for the FTY and FPFTY outside services expense claims and no basis to support the blanket inflation adjustments. Per Columbia Exhibit No. 4, Schedule 14, p. 3, the Company provided a breakdown for outside services expense incurred in 2019 through 2021 that consisted of seventy-seven-line items of expenses (by cost element). The Company, in its response to I&E-RE-23-D, states that such a breakdown for the FTY and FPFTY is not available as it does not budget expenses by each cost element (I&E Exhibit No. 1, Schedule 7, p. 5). In the absence of a specific basis and support for applying a blanket inflation rate of 3% across the board in all cost elements of outside services expense, such an increase is unreasonable and unsupported. Each cost element is a separate expense item and should be evaluated and budgeted based on historic spending level, merit, and future known and measurable changes (I&E Statement No. 1, p. 38).

Q. DO YOU HAVE ANY ADDITIONAL SUPPORT FOR YOUR RECOMMENDED DISALLOWANCE OF THE BLANKET INFLATION ADJUSTMENT?

A. Yes. Recently, the Commission denied a blanket increase in the 2020 Wellsboro Electric Company base rate case[1] which applied a 3% blanket inflation adjustment

[1] Pa. PUC v. Wellsboro Electric Company at Docket No. R-2019-3008208 (Order entered April 29, 2020, p. 40).

to the FTY expenses to estimate the FPFTY expenses claim, and the Commission stated that:

> [T]he Company did not demonstrate that making this blanket adjustment to each expense claim directly relates to the actual costs expected to be incurred in each expense account in the FPFTY.

Similarly, in a recent Aqua Pennsylvania base rate case,[2] the Commission denied a General Price Level Adjustment (blanket inflation adjustment) to expenses, which was neither targeted nor specific and agreed with the Administrative Law Judge's Recommended Decision stating that:

> We also agree that allowing Aqua to apply a general inflation adjustment to a block of expenses could incentivize less accurate tracking of expenses and a less rigorous approach to controlling costs for those expenses.

Considering the Commission's Orders, the Company did not meet its burden in demonstrating that its proposed blanket inflation adjustment to all the seventy-seven-line items of expenses contained in the outside services expense claim would meet the "known and measurable" standard for increasing each expense line item in the FTY and FPFTY expense claims.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR OUTSIDE SERVICES?

A. No.

[2] Pa. PUC v. Aqua Pennsylvania, Inc. at Docket No. R-2021-3027385 (Order entered on May 16, 2022, pp.116-117).

<u>INJURIES AND DAMAGES</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR INJURIES AND DAMAGES.

A. In direct testimony, I recommended an allowance of $311,042 for injuries and damages expense, or a reduction of $37,342 ($348,384 - $311,042) to the Company's claim (I&E Statement No. 1, p. 41). As discussed in direct testimony, my recommendation was based on an average of the last five years' (2017 through 2021) actual payments to even out historic highs and lows in actual payments in contrast to Columbia's calculation based on the last five years' average of inflated actual expenses (I&E Statement No. 1, pp. 41-42).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Kelly K. Miller disagrees with my recommended adjustment to injuries and damages expense (Columbia Statement No. 4-R, pp. 8-10).

Q. PLEASE SUMMARIZE MS. MILLER'S RESPONSE.

A. Ms. Miller rejects my recommended historic five-year simple average of actual expenses (cash payment) in contrast to the Company's inflated historic actual expense (cash payment) average method for determining the FPFTY claim for injuries and damages. The primary reason for her rejection is that the cash payments incurred five years ago to repair damaged property will cost more today due to inflation (Columbia Statement No. 4-R, p. 10). She then asserts that Columbia does not (and did not in the instances mentioned) use the budget as a basis for its claimed expense level. The budget reflects an accrual amount for injuries and damages and Columbia consistently uses actual cash payments for ratemaking purposes, and therefore, she asserts that it is inappropriate to compare the historic actual expense variance as compared to the budgeted amounts as a support to my recommendation (Columbia Statement No. 4-R, p. 10).

Q. WHAT IS YOUR RESPONSE TO MS. MILLER'S ASSERTION?

A. I disagree with Ms. Miller applying a historic five-year inflated actual expense (cash payment) average method for determining the FPFTY claim. Regarding Ms. Miller's assertion that the cash payments incurred five years ago to repair damaged property will cost more today due to inflation is true in general. However, the Company's historic injuries and damages expense (cash payment) shows highs and lows as shown in the table below (Columbia filing Exhibit 4, Schedule 2, p. 11):

	Actual cash payment	**Columbia's GDP Inflated**
12/2016-11/2017	$283,553	$311,257
12/2017-11/2018	$225,982	$242,271
12/2018-11/2019	$397,834	$419,013
12/2019-11/2020	$441,145	$459,139
12/2020-11/2021	$206,698	$206,698
	$1,555,212	$1,638,378
Five-Year Average	$311,042	$327,676

The above table shows that the Company experienced highs and lows in actual cash payments for this expense, and therefore, it is more appropriate and reasonable to use a simple average to even out historic highs and lows of the actual cash payments for determining an appropriate FPFTY allowance. This expense trend does not support applying inflation to the historic expense to determine a FPFTY allowance (I&E Statement No. 1, p. 41).

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR INJURIES AND DAMAGES?

A. No.

ADVERTISEMENT EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR ADVERTISEMENT EXPENSE.

A. In direct testimony, I recommended an allowance of $435,666 for advertisement expense, or a reduction of $247,646 ($683,312 - $435,666) to the Company's claim (I&E Statement No. 1, p. 44). As discussed in my direct testimony, my recommendation is based on a three-year average of the actual expense to even out the highs and lows in this expense (I&E Statement No. 1, pp. 44-45).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Nicole M. Paloney disagrees with my recommended adjustment to advertisement expense (Columbia Statement No. 9-R, pp. 16-20).

Q. PLEASE SUMMARIZE MS. PALONEY'S RESPONSE.

A. Ms. Paloney explains that the three years (2019, 2020, 2021) of historic actual expense data presented in my direct testimony (I&E Statement No. 1, p. 44) are not comparable to the FTY and FPFTY claims because of changes in the way certain costs are being budgeted and booked by cost element due to accounting changes for actual costs incurred. Additionally, the public awareness expenses included in the FTY and FPFTY claims are not included in the historic actual expenses, and therefore, they are not comparable with the historic expense level (Columbia Statement No. 9-R, pp. 16-17). She then presented a revised table showing historic and future test year expense claims, which is summarized in the table below (Columbia Statement No. 9-R, p. 18):

	2019	**2020**	**2021**	**FTY**	**FPFTY**
As Filed Total	$193,037	$714,668	$571,123	$866,000	$866,000
Rebuttal Total	$587,771	$701,397	$656,236	$687,332	$683,312

Considering the above updated information, Ms. Paloney rejects my recommended adjustment to advertisement expense because it is consistent with the historic expense level (Columbia Statement No. 9-R, pp. 19-20).

Q. WHAT IS YOUR RESPONSE TO MS. PALONEY'S ASSERTION?

A. It is concerning to note that in response to I&E-RE-38-D, Columbia did not provide or clarify changes in the historic actual advertisement expense as compared to the FTY and FPFTY claims (I&E Exhibit No. 1, Schedule 9). Based on updated information provided in the Company's rebuttal testimony, I am revising my recommended adjustment to the FPFTY claimed expense applying a three-year average of the historic actual expense to even out highs and lows in this expense.

Q. WHAT IS YOUR UPDATED RECOMMENDATION FOR ADVERTISEMENT EXPENSE?

A. I recommend a revised allowance of $648,468 (($587,771 +$701,397 + $656,236) ÷ 3) for advertisement expense, or a reduction of $34,844 ($683,312 - $648,468) to the Company's claim as explained above.

<u>**NCSC ALLOCATED COMPENSATION**</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR NCSC ALLOCATED COMPENSATION.

A. In direct testimony, I recommended an allowance of $2,326,870 or a reduction of $4,053,130 ($6,380,000 - $2,326,870) to NCSC allocated compensation expense broken down as follows (I&E Statement No. 1, p. 46):

(1) Allowance of $2,326,870 or a reduction of $1,173,130 ($3,500,000 - $2,236,870) to the Company's claim for NCSC incentive compensation based on the last three years' average payout factor of 1.12% (I&E Statement No. 1, pp. 46-48).

(2) Allowance of $0 or a reduction of $215,000 ($215,000 - $0) to the Company's claim for NCSC profit-sharing expense as this benefit is available only to certain high-level executive-type positions based on earning targets rather than goals that benefit ratepayers (I&E Statement No. 1, pp. 46 and 49).

(3) Allowance of $0 or a reduction of $2,665,000 ($2,665,000 - $0) to the Company's claim for NCSC stock rewards expense as this benefit is linked to financial goals and targets such as earnings per share, rate of return on equity, or appreciation of the parent company's common stock and focused on shareholder-oriented goals (I&E Statement No. 1, pp. 46, 49-50).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Kimberly Cartella disagrees with my recommended adjustment to NCSC allocated compensation expense (incentive compensation, profit sharing, and stock rewards) (Columbia Statement No. 17-R, pp. 3, 5-8).

Q. PLEASE SUMMARIZE MS. CARTELLA'S RESPONSE CONCERNING INCENTIVE COMPENSATION.

A. Ms. Cartella states that I made errors in calculating the NCSC incentive compensation payout factors (2019: 1.13%, 2020: 1.31%, and 2021: 0.93%) due to incorrect alignment of numbers to wrong years (Columbia Statement No. 17-R, p. 5). She then presented her version of data showing calculation of payout factors

(2019: 1.74%, 2020: 1.31%, and 2021: 2.87%) (Columbia Statement No. 17-R, p. 5, lines 15-18). Based on her calculation the historic average payout factor calculates to 1.97% in contrast to my calculated average payout factor of 1.12%. Therefore, she rejects my recommended adjustment to the NCSC allocated incentive compensation (Columbia Statement No. 17-R, p. 5).

Q. WHAT IS YOUR RESPONSE TO MS. CARTELLA'S ASSERTION?

A. I disagree with Ms. Cartella's response that I made errors in the calculation of incentive payout factors because I relied on Columbia's revised response to I&E-RE-54-D (I&E Exhibit No. 1, Schedule 10, pp. 3-5). I am reproducing my calculation of payout factors with additional columns for explanation as follows:

Fiscal Year	NCSC Total Base Payroll (1)	Allocated Actual Incentive Compensation (2)	O&M – Actual Incentive Compensation (3)	Payout Factor on Base Payroll (4) (3 ÷ 1 x 100)
November 30, 2019	$164,112,582	$2,379,193	$1,862,432	1.13%
November 30, 2020	$165,772,955	$2,860,519	$2,166,271	1.31%
November 30, 2021	$166,635,538	$2,166,291	$1,547,165	0.93%
FTY	$197,613,381*		$3,400,000*	1.72%
FPFTY	$207,756,275*		$3,500,000*	1.68%

*Projected

In the above table the amounts shown in column (3) is the O&M portion of incentive compensation calculated by applying Columbia's O&M expense factors of 78.28%, 75.73%, and 71.42% for the fiscal years 2019, 2020, and 2021 respectively to the amounts shown in column (2) (I&E Exhibit No. 1, Schedule 10, pp. 3-5).

It appears from Ms. Cartella's payout factor calculation that she considered total incentive compensation paid in each fiscal year, which should in fact be calculated on the O&M portion of incentive compensation as shown in the above table, and her 2021 total compensation amount does not reconcile with Columbia's revised response to I&E-RE-54-D, Attachment A, p. 1 (I&E Exhibit No. 1, Schedule 10, p. 3). Additionally, as discussed in the incentive compensation section above, the achievement of financial goals is speculative and contingent on overall financial performance of the Company. Therefore, it is speculative to estimate the FPFTY NCSC incentive compensation expense when the financial performance of the company is linked to the incentive payment.

Thus, my recommended allowance calculated based on a 1.12% payout factor applied to the FPFTY total base payroll expense is appropriate and reasonable in contrast to Columbia's speculative 1.97% payout factor (I&E Statement No. 1, pp. 47-48).

Q. PLEASE SUMMARIZE MS. CARTELLA'S RESPONSE CONCERNING PROFIT-SHARING EXPENSE?

A. Ms. Cartella explains that as part of the total rewards package, profit sharing is an element of the Company's 401(k)/Retirement Savings Plan, not the Omnibus Incentive Plan, and supports all employees' retirement savings and not just certain high-level executives as all employees are eligible for the 401(k)/Retirement Savings Plan. Company contributions for Profit Sharing are deposited into employees' 401(k) accounts, which provide an important element of employee savings (Columbia Statement No. 17-R, p. 8).

Q. WHAT IS YOUR RESPONSE TO MS. CARTELLA?

A. I accept Ms. Cartella's response as discussed in the employee benefits section above and withdraw my recommendation for removal of NCSC profit-sharing expense of $215,000 from the NCSC compensation expense claim.

Q. PLEASE SUMMARIZE MS. CARTELLA'S RESPONSE CONCERNING STOCK REWARDS EXPENSE?

A. Ms. Cartella rejects my recommendation to disallow 100% of stock rewards expense. She states that these rewards are not based upon return on equity or appreciation of the parent company's stock. Long-term incentives are based on achievement of metrics (goals and measures) that include safety, customer perception, employee culture, environmental, financial, and employee diversity (Columbia Statement No. 17-R, pp. 6-7). Additionally, she states that stock rewards are provided to leaders in positions at the director level and above and are based upon financial metrics and achievements of goals (Columbia Statement No. 17-R, p. 6).

Q. WHAT IS YOUR RESPONSE TO MS. CARTELLA?

A. As discussed in my direct testimony, stock rewards are limited to certain top-level executives, and therefore, it is not immediately obvious how stock rewards expense is related to providing safe and reliable service to ratepayers (I&E Statement No. 1, pp. 49-50). Additionally, the achievement of financial goals/metrics of the parent company and other operating companies combined financial performance may influence the determination of stock rewards for certain top-level executives at the corporate management level. I continue to recommend removal of the entire stock rewards expense from the NCSC compensation claim as discussed in my direct testimony (I&E Statement No. 1, pp. 49-50).

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR NCSC ALLOCATED COMPENSATION?

A. Yes, in part. I recommend a revised allowance of $2,541,870 or a reduction of $3,838,130 ($6,380,000 - $2,541,870) to NCSC allocated compensation expense after accepting profit-sharing expense of $215,000.

<u>OTHER ADJUSTMENTS</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR OTHER ADJUSTMENTS.

A. In direct testimony, I recommended an allowance of $14,275,000 for other adjustments, or a reduction of $1,538,021 ($15,813,021 - $14,275,000) to the

Company's claim (I&E Statement No. 1, p. 51). As discussed in my direct testimony, my recommendation was comprised of three parts: (1) an adjustment for removal of the one-time, nonrecurring expense of $620,000 from Picarro Leak Detection System expense claim (I&E Statement No. 1, p. 51); (2) disallowance of education costs related to the RNG pilot program as this program cost relates to the purchased gas cost recovery mechanism (Section 1307(f)-Recovery of Natural Gas Costs) and the Company's application for Green Path Rider (RNG program) is separately docketed and pending for the Commission's consideration and approval (I&E Statement No. 1, pp. 53-54); and (3) disallowance of the entire $884,521 FPFTY claim for additional labor and benefits expense pending for employees' union contracts ratification (I&E Statement No. 1, pp. 54-55).

Q. DID ANY WITNESSES RESPOND TO YOUR RECOMMENDATION?

A. Yes. (1) C. J. Anstead has accepted my recommendation to remove the one-time start-up cost of $620,000 from the Picarro Leak Detection System program expense claim of $10,900,000 included in Other Adjustments expense of $15,813,021 (Columbia Statement No. 14-R, p. 6). (2) Kelley K. Miller has accepted my recommendation to remove education costs of $33,500 from the Other Adjustments expense claim of $15,813,021 pertaining to the Renewable Natural Gas (RNG) Choice under the proposed Green Path Rider, a separately docketed application (Columbia Statement No. 4-R, p. 3). (3) Nicole M. Paloney revised Columbia's FPFTY additional labor and benefits expense adjustment claim from $884,521

($672,181 labor + $ 212,340 benefits) to $578,147 ($483,442 labor + $94,705 benefits) (Columbia Statement No. 9-R, p. 8 and Exhibit NP 5-R).

Q. WHAT IS YOUR RESPONSE TO THE COLUMBIA WITNESSES?

A. For the first two items above, my recommendations were accepted by Company witnesses. For the third item, I accepted Ms. Paloney's revision to the labor and benefits amounts based on her explanation.

<u>ENERGY EFFICIENCY PLAN</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR THE ENERGY EFFICIENCY PLAN.

A. In direct testimony, I recommended disallowance of Company's proposal to implement an Energy Efficiency (EE) Plan (I&E Statement No. 1, p. 61), which was based on various reasons as discussed in my direct testimony (I&E Statement No. 1, pp. 61-63).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Columbia witness Theodore M. Love disagrees with my recommended disallowance of the proposed EE Plan (Columbia Statement No. 16-R, pp. 1-9).

Q. PLEASE SUMMARIZE MR. LOVE'S RESPONSE.

A. First, Mr. Love states that Columbia has been running a Low-income Usage

Reduction Program (LIURP) and Audit and Rebate Program (A&R), so it is incorrect to state that Columbia has proposed the EE Plan for the first time (Columbia Statement No. 16-R, p. 3). Second, he states that Columbia's EE Plan programs are based on successful EE programs from other NGDCs' and Columbia's program assumptions have been modified to conform to the Company's specific utility territory (Columbia Statement No. 16-R, p. 3). Third, he states that for the Online Audit Kit (OAK) program he did not use another state's regional parameters, however, he updated savings and participation figures for Columbia's climate and customer base (Columbia Statement No. 16-R, p. 4). Fourth, he states that non-performance penalties are not necessary for ensuring voluntary plans meet goals as other NGDCs' similar plans are already in place (Columbia Statement No. 16-R, p. 6). Fifth, Pipeline Replacement programs and EE Plans are not mutually exclusive and can both address burdens placed on aging infrastructure and there may even be some pipeline replacements projects that could be delayed or avoided due to energy efficiency efforts (Columbia Statement No. 16-R, p. 7).

Lastly, he asserts that it is inappropriate to argue that the proposed EE Plan would burden customers' rates via an EE rider in light of the current inflationary trends in the cost of living because it is designed to specifically help ratepayers to combat rising energy prices through conservation (Columbia Statement No. 16-R, pp. 8-9).

Q. WHAT IS YOUR RESPONSE TO MR. LOVE'S ASSERTION?

A. First, I disagree with Mr. Love comparing Columbia's LIURP experience with the proposed EE Plan to refute my statement that Columbia has proposed the EE Plan for the first time and has no experience or measurable data in this regard (I&E Statement No. 1, p. 61). Second, though Columbia's EE Plan is designed based on success or results of other NGDCs' energy efficiency plans, it is speculative to determine whether Columbia's EE Plan would succeed in attaining all projected gas savings, additional employment generation, carbon emission reduction, environmental/societal benefits, and cost-benefits ratio (I&E Statement No. 1, p. 61). Third, I agree with Mr. Love that he did not use Columbia Gas Virginia's OAK program parameters and performance data, which is influenced by the region/state-specific program parameters of Virginia. However, success of the proposed OAK program in line with Columbia Gas Virginia's OAK program is speculative at this time. Fourth, I presented the fact that Act 129 does not mandate NGDCs to introduce or develop and implement EE Plans and there is no mandated requirement for the NGDC's EE plan performance parameters, and therefore, NGDCs are not subject to any civil penalties for a failure to meet stated goals (I&E Statement No. 1, p. 61). In my view in such a situation, if an NGDC's EE Plan fails to achieve targeted goals, the expenses incurred (funded by the ratepayers) would be unproductive. Fifth, I reiterate that Columbia filed base rate cases consistently and requested rate increases since 2012 to primarily recover the capital cost of pipeline infrastructure replacement program and O&M expenses, which have constantly increased customers' rates year after year. Columbia is heavily focused on a capital-intensive pipeline infrastructure project, which will continue for the next several years. Therefore, it is not appropriate at this time to put an additional burden on customers' rates via the proposed EE rider in light of the current inflationary trends in the cost of living (I&E Statement No. 1, p. 62).

Also, although Columbia's EE Plan is designed with an intent to help ratepayers to combat rising energy prices through conservation, this plan is based on a speculative calculation about the number of customers' participation, gas savings, additional employment generation, environmental or societal benefits, and the cost-benefit ratio (achieving Total Resource Cost test results) (I&E Statement No. 1, p. 63). It is equally important to consider the increase in the cost of energy efficient equipment and installation/replacement cost due to the current inflationary trend, which impact customers' affordability for energy efficient equipment installation or replacement and generally the replacement of an equipment is need based rather than the availability of utility's incentives.

Another limitation in EE Plans is that the customer must be able to afford to invest in the high efficiency equipment at the time of equipment replacement or installation to qualify for these incentives. With the costs of consumer products rising so dramatically, fewer customers may be able to afford these high efficiency products, so the Company will be funding these programs largely from customers who cannot afford these improvements themselves. While programs to encourage conservation are important for our environment, introducing a program of this type at a time when so many products are becoming unaffordable for so many is not appropriate in conjunction with another increase in base rates.

Finally, it is important to remember that existing NGDC's energy efficiency plans largely came on the scene when the cost of the natural gas commodity was very low. In that environment, investing in costly and highly efficient appliances and heating systems was not attractive to consumers as it was unlikely that their cost of investment in that equipment could ever be recovered in the lifetime of that equipment through gas savings. Offering incentives to help offset the cost of the more costly equipment was practically a necessity to encourage consumers to invest in higher efficiency appliances. For example, UGI Utilities introduced its energy efficiency program in 2015 (Docket No. R-2015-2518438). In 2016 when that program first began operation, Columbia's gas cost rate was $3.0994/Dth on January 1, 2016; in 2022, Columbia's gas cost rate was $5.493/Dth on January 1, 2022. A customer who can afford to purchase high efficiency equipment in 2022 clearly has incentive to do so without the Company funding rebates from customers who cannot afford to make those investments.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR THE COMPANY'S PROPOSED EE PLAN?

A. No. I continue to recommend that it would be imprudent and unfair to permit Columbia to implement an EE Plan at this time.

STATE INCOME TAX EXPENSE

Q. HAVE THERE BEEN ANY CHANGES IN LAW THAT HAVE BEEN ENACTED SINCE YOUR DIRECT TESTIMONY WAS WRITTEN?

A. Yes. On July 8, 2022, Pennsylvania House Bill 1342 was signed into law as Act 53 of 2022. Act 53 will lower the current 9.99% corporate net income tax rate to 8.99% in 2023 (the Company's claimed FPFTY) and will decrease the tax rate by 0.5% each year until 2031, when the tax rate will be 4.99%.[3]

Q. WHAT IS THE COMPANY'S CLAIM FOR STATE INCOME TAX EXPENSE?

A. The Company's FPFTY state income tax expense as proposed rates is $9,531,758 (Columbia Exhibit KKM 1-R, p. 1).

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company's state income tax expense claim is based on the existing Pennsylvania corporate net income tax rate of 9.99% (Columbia Exhibit No. 102, Schedule 3, p. 5).

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

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[3] https://home.kpmg/us/en/home/insights/2022/07/tnf-pennsylvania-changes-to-corporate-net-income-tax-laws-other-tax-changes html, accessed July 13, 2022.

Q. WHAT DO YOU RECOMMEND FOR STATE INCOME TAX EXPENSE?

A. I recommend an allowance of $5,444,504 or a reduction of $4,087,254 ($9,531,758 - $5,444,504) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. I recommend a Pennsylvania income tax rate of 8.99% to reflect the Pennsylvania corporate income tax rate that will be in effect for the FPFTY. This change is reflected in my recommended revenue requirement in Table I of my testimony above. This recommended allowance also incorporates the state income tax effect of my other recommended adjustments and those of I&E witness Christopher Keller. Additionally, the federal income tax expense at the proposed rates will change corresponding to the change in state income tax allowance at proposed rates, which is reflected in Table I of my testimony above.

Q. ARE THERE ANY OTHER CHANGES NECESSARY FOR STATE INCOME TAXES?

A. If applicable, the Company will need to identify any other changes necessary for restating deferred state income taxes. Generally, utilities are required to use the flow through method for state income taxes which would not generate deferrals. However, the Company should confirm whether there are any specific state tax items that utilize normalization treatment and whether adjustments are required.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Statement No. 2-SR
Witness: Christopher Keller

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Surrebuttal Testimony

of

Christopher Keller

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

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INTRODUCTION OF WITNESS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Christopher Keller. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

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

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. ARE YOU THE SAME CHRISTOPHER KELLER WHO IS RESPONSIBLE FOR THE DIRECT TESTIMONY CONTAINED IN I&E STATEMENT NO. 2 AND THE SCHEDULES IN I&E EXHIBIT NO. 2?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to address statements made by Columbia Gas of Pennsylvania, Inc. (Columbia or Company) witness Paul R. Moul (Columbia Statement No. 8-R) in his rebuttal testimony regarding rate of return topics including the cost of common equity and the overall fair rate of return, which will be applied to the Company's rate base. I will also address the

Company's management performance claim discussed by Mr. Moul and Company witness Mark Kempic (Columbia Statement No. 1-R).

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN ACCOMPANYING EXHIBIT.

A. No.

SUMMARY OF MR. MOUL'S REBUTTAL TESTIMONY

Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY TO YOUR RECOMMENDATIONS MADE IN DIRECT TESTIMONY.

A. Mr. Moul disputes my recommendations regarding an appropriate proxy group, my reliance on and application of the DCF method, the DCF growth rate, and disallowance of his leverage adjustments to the DCF and beta of his CAPM. Further, Mr. Moul disagrees with the appropriate risk-free rate to use and my exclusion of a size adjustment in my CAPM analysis, my disagreement with his use of the Risk Premium (RP) and Comparable Earnings (CE) methods, and my recommended disallowance of additional basis points for management performance. Finally, Mr. Moul opines that the Commission-determined Distribution System Improvement Charge (DSIC) rate should serve as the bare minimum cost of equity in this proceeding.

DSIC RATE

Q. SHOULD THE COMMISSION CONSIDER THE AUTHORIZED DSIC RATE ESTABLISHED IN THE QUARTERLY EARNINGS SUMMARY REPORTS AS AN APPROPRIATE MEASURE TO DETERMINE THE COST OF EQUITY IN THIS PROCEEDING?

A. No. Mr. Moul's comparison between the I&E recommended return on equity in this proceeding and the Company's DSIC rate is misguided. The DSIC rate is designed to encourage its use and to incentivize accelerated pipeline replacement and infrastructure upgrades to bring the existing aging infrastructure closer to meeting safety and reliability requirements in between base rate filings. To suggest the cost of equity must be at or above the DSIC rate in this base rate proceeding is inappropriate and not in the public interest. Additionally, the DSIC rate establishes a benchmark above which a utility company is considered "overearning." As such, the DSIC rate does not serve as a proper measurement of a subject utility's cost of equity in a rate case proceeding since the DSIC rate is routinely higher than any return on equity approved in such base rate proceedings. In fact, 66 Pa. C.S. § 1358(b)(3) states the following:

> The distribution system improvement charge shall be reset at zero if, in any quarter, data filed with the commission in the utility's most recent annual or quarterly earnings report show that the utility will earn a rate of return that would exceed the allowable rate of return used to calculate its fixed costs under the distribution system improvement charge.

Finally, the DSIC mechanism serves to lower a utility's risk because it reduces the lag time in the recovery of a company's capital outlays. DSIC spending requires preapproval of eligible plant via a Long-Term Infrastructure Improvement Plan so there is little question as to the prudence of those expenditures.

Q. ARE THERE ANY INSTANCES YOU ARE AWARE OF WHERE THE COMMISSION GRANTED A RETURN ON EQUITY THAT WAS HIGHER THAN THE MOST RECENTLY PUBLISHED DSIC RATE?

A. Yes. In the recent Aqua Pennsylvania, Inc. (Aqua) base rate case the Commission awarded that company a return on equity of 10.00%,[1] which was higher than the most recently published DSIC rate for water and wastewater utilities of 9.80%.[2] This was due to the Commission granting 25 basis points for management effectiveness,[3] which caused the return on equity to go from 9.75% to 10.00%.

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1 *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order entered May 16, 2022).

2 PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended December 31, 2021, approved at Public Meeting on June 16, 2022 at Docket No. M-2022-3032405.

3 *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order entered May 16, 2022).

Q. ARE THERE ANY POTENTIAL PROBLEMS WITH AWARDING A RETURN ON EQUITY THAT IS EQUAL TO OR HIGHER THAN THE DSIC RATE?

A. Yes. First, it removes incentive for utilities to use the DSIC mechanism between rate filings and may encourage the more frequent filing of base rate cases. Second, it may encourage litigation as opposed to settlement of cases, since companies may improperly believe this is the new norm. Finally, it may set companies up to quickly land in an over-earnings status and preclude them from being able to utilize the DSIC mechanism at all.

Therefore, in my opinion, the DSIC rate should generally be an incentive rate that is higher than a return on equity percentage granted in a rate proceeding, and I am anticipating that the recent Commission decision is not indicative of "the new normal."

<u>DISCOUNTED CASH FLOW</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR DCF ANALYSIS.

A. Mr. Moul agrees that the results of a DCF analysis should be given weight but disagrees with my approach. Mr. Moul also disagrees with my results based on the outcomes of certain individual companies and my recommendation to reject his leverage adjustment (Columbia Statement No. 8-R, pp. 18-23).

<u>EXCLUSIVE USE OF THE DCF</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR USE OF THE DCF.

A. Mr. Moul explains that the use of more than one method provides a superior foundation for the cost of equity determination. Mr. Moul claims that the use of more than one method will capture the multiplicity of factors that motivate investors to commit their capital to a particular enterprise. Mr. Moul asserts that I have made a "remarkable shift" from using the CAPM as a check to the DCF to a comparison. Mr. Moul also claims that my DCF results are too low compared to my CAPM results and are not a reasonable representation of the cost of equity due to an increase in interest rates and inflation. Finally, Mr. Moul states that my comparison of my DCF results to my CAPM results when determining the impact to ratepayers is not relevant and proceeds to recalculate the impact to ratepayers by using the average of my DCF and CAPM results and comparing this to my DCF results as he asserts that if there was to be a comparison, it would be between the average of my DCF results and my CAPM results being compared to my DCF results (Columbia Statement No. 8-R, pp. 15-19).

Q. WERE ANY METHODS OTHER THAN THE DCF EMPLOYED IN YOUR ANALYSIS?

A. Yes. Although my recommendation was based on the results of my DCF analysis, I also employed the CAPM as a comparison. For the reasons discussed in my direct testimony, the DCF method is the most reliable (I&E Statement No. 2, pp. 19-21). Although no one method can capture every factor that influences an investor, including the results of methods less reliable than the DCF does not make the end result more reliable or more accurate. As a result, I stand by my method of using the DCF with a CAPM comparison, which is consistent with the methodology historically used by the Commission in base rate proceedings, even as recently as 2017, 2018, 2020, and 2021.[4]

Q. HAVE YOU EVER STATED THAT THE CAPM SHOULD BE USED AS A CHECK?

A. No. Neither I nor anyone from I&E has advocated that the CAPM should be used as a "check." As stated in my direct testimony, I provide the results of my CAPM as a comparison and *not* as a check to the DCF results, which is consistent with all prior I&E rate of return testimonies (I&E Statement No. 2, p. 19, lines 4-5).

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[4] *Pa. PUC v. City of DuBois – Bureau of Water*; Docket No. R-2016-2554150 (Order Entered March 28, 2017). *See generally* Disposition of Cost Rate Models, pp. 96-97; *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Cost of Common Equity, p. 119; *Pa. PUC v. Wellsboro Electric Company;* Docket No. R-2019-3008208 (Order Entered April 29, 2020). *See generally* Disposition of Primary Methodology to Determine ROE, pp. 80-81; *Pa. PUC v. Citizens Electric Company of Lewisburg, PA;* Docket No. R-2019-3008212 (Order Entered April 29, 2020). *See generally* Disposition of Cost of Common Equity, pp. 91-92. *Pa. PUC v. Columbia Gas of Pennsylvania, Inc.;* Docket No. R-2020-3018835 (Order Entered February 19, 2021). *See generally* Disposition of Cost of Common Equity, p. 131. *Pa. PUC v. PECO Energy Company – Gas Division*; Docket No. R-2020-3018929 (Order Entered June 22, 2021). *See generally* Disposition of Return of Rate on Common Equity, p. 171.

Q. DOES THE DCF ADEQUATELY FACTOR IN RECENT INFLATIONARY TRENDS?

A. Yes. As stated in my direct testimony, my DCF calculation includes a spot stock price when determining the dividend yield and analysts who generate forecasted earnings growth rates almost certainly take inflation into consideration as well; therefore, it contains the most up-to-date projected information of any model. In other words, the inputs of the DCF capture all known economic factors, including inflation. Therefore, any potential concerns that the Commission should consider the overall economic climate and related inflation when deciding the merits of the Company's requested base rate increase are adequately covered by use of the DCF as a primary model for determining an appropriate return on equity (I&E Statement No. 2, pp. 28-29).

Q. DO YOU AGREE WITH USING THE AVEARAGE OF YOUR DCF AND CAPM RESULTS TO DETERMINE THE IMPACT TO RATEPAYERS?

A. No. My calculation was to demonstrate the impact to ratepayers of using the CAPM as the top end of a range in determining a return on equity as the Commission used I&E's CAPM results as a ceiling for a "range of reasonableness" for determining the return on equity as occurred in the 2021 Aqua base rate case.[5] Additionally, Mr. Moul's average of my DCF and CAPM results

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[5] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order entered May 16, 2022).

of 10.875% is still inappropriate as it is above the recently published DSIC rate authorized by the Commission of 10.15%[6] for gas distribution companies based on a period ended December 31, 2021. This demonstrates the problem associated with using the CAPM in determining a utility's return on equity and would result in a significant burden to ratepayers during a time of increasing levels of inflation and economic decline. Therefore, I believe that the CAPM should not be used as a primary method and it should only be used as a comparison and not as a check of the DCF for the reasons I have stated in this testimony and in my direct testimony.

EVALUATING THE DCF BASED ON INDIVIDUAL RESULTS

Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY REGARDING THE RESULTS OF YOUR DCF.

A. Mr. Moul explains that when some results are unreasonable on their face, the reliability of or the witness' application of that method must be questioned. He points to the results of two companies in my proxy group and claims that they fall into the category of unreasonableness. Mr. Moul attempts to support his theory by arguing that the spread between the cost of debt and the cost of equity is 6.75% (Columbia Statement No. 8-R, p. 18, line 22 through p. 19, line 10).

[6] PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended December 31, 2021, approved at Public Meeting on June 16, 2022 at Docket No. M-2022-3032405.

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S ATTEMPT TO DISAGGREGATE YOUR RESULTS?

A. Mr. Moul derives his suggested 6.75% spread from his RP analysis (Columbia Statement No. 8, p. 36, lines 13-15). However, I have refuted the use of the RP method both in my direct testimony (I&E Statement No. 2, p. 17, line 2 through p. 25, line 11), and again in this surrebuttal testimony, as it is an inferior method for calculating the cost of common equity. Further, the 9.61% result of my DCF analysis offers a 5.10% margin over the undisputed 4.51% cost of debt (9.61% - 4.51% = 5.10%). My recommended cost of equity is more than double, or 213% higher that the Company's cost of debt, which I certainly believe satisfies Mr. Moul's statement that, "It is a fundamental tenet of finance that the cost of equity must be higher than the cost of debt by a meaningful margin to compensate for the higher risk associated with a common equity investment" (Columbia Statement No. 8-R, p. 19, lines 3-5).

<u>GROWTH RATE</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR GROWTH RATES.

A. Mr. Moul argues that I should have removed the low Yahoo growth rate of One Gas Inc. from my proxy group average. He suggests that had I done this, my DCF result would have increased from 9.61% to 9.75% (3.07% dividend yield + 6.68% growth rate) (Columbia Statement No. 8-R, p. 20, lines 8-18).

Q. DO YOU AGREE WITH MR. MOUL'S RECALCULATION OF YOUR DCF RESULTS BASED ON THE REMOVAL OF ONE GAS INC.'S YAHOO GROWTH RATE DUE TO WHAT HE DEEMS TO BE AN UNREASONABLY LOW GROWTH RATE?

A. No. Mr. Moul removes this company's Yahoo growth rate from my analysis simply because he believes its growth rate and corresponding DCF result are too low. His recalculation results in a DCF that is 14 basis points (9.75% - 9.61%) higher than my recommendation, yet still 145 basis points (11.20% - 9.75%) below his cost of equity recommendation.

Mr. Moul's suggestion to remove One Gas Inc.'s growth rate only serves to inflate the DCF result as his argument lacks objective rationale and defeats the purpose of using a proxy group. Mr. Moul himself states, "The principal purpose of assembling a barometer group is to avoid relying on data for a single company that may not be representative and to thereby smooth out any abnormalities" (Columbia Statement No. 8-R, p. 18, lines 22-24). This acknowledgement is counterintuitive to his suggestion to remove One Gas Inc.'s growth rate from my analysis. It should also be worth noting that Mr. Moul employs One Gas Inc. in his own proxy group and analysis.

<u>LEVERAGE ADJUSTMENT</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING HIS RECOMMENDED LEVERAGE ADJUSTMENT.

A. First, Mr. Moul clarifies that his "leverage adjustment" is not a traditional "market-to-book" ratio adjustment. Next, he states that credit rating agencies do not measure the market-required cost of equity for a company, nor are they concerned with how it is applied in the rate-setting context. Instead, credit rating agencies are only concerned with the interests of lenders and the timely payment of interest and principal by utilities. Mr. Moul then questions my references to prior Commission Orders. Finally, Mr. Moul disagrees with my assertion that investors base their decisions on book value capitalization (Columbia Statement No. 8-R, pp. 24-26).

Q. HAVE YOU CLAIMED THAT MR. MOUL'S ADJUSTMENT IS A MARKET-TO-BOOK RATIO ADJUSTMENT?

A. No. As I stated in my direct testimony, Mr. Moul does not propose to change the capital structure of the utility (a leverage adjustment), nor does he propose to apply the market-to-book ratio to the DCF model (a market-to-book adjustment) (I&E Statement No. 2, p. 46, line 20 through p. 47, line 3).

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S REBUTTAL TESTIMONY CONCERNING CREDIT RATING AGENCIES?

A. Mr. Moul has supported the I&E argument that his proposed leverage adjustment is not needed by stating that the credit rating agencies are only concerned with the timely payment of interest and principal by utilities (Columbia Statement No. 8-R, p. 25). Mr. Moul's stated need for the leverage adjustment is based on his assertion that the difference between the book value capital structure and his market value capital structure causes a financial risk difference (Columbia Statement No. 8, p. 28).

Financial risk does relate to the capital structure of a company, but it is created by the financing decisions (the use of debt or equity) and the amount of leverage or debt a company chooses to finance its assets. Financial risk and the book value capital structure of a company are represented in the income statement, part of what is evaluated by rating agencies. Mr. Moul agrees with me that credit rating agencies use a company's financial statements in their analysis to assess financial risk and determine creditworthiness (Columbia Statement No. 8-R, p. 25).

Q. SUMMARIZE MR. MOUL'S RESPONSE TO YOUR REFERENCING PRIOR COMMISSION ORDERS.

A. Mr. Moul refers to the discussion in my direct testimony where I point to six recent cases (Aqua Pennsylvania, Inc.'s 2007 base rate case, City of Lancaster –

Bureau of Water's 2010 base rate case, UGI Utilities, Inc. – Electric Division's 2017 base rate case, Columbia's 2020 base rate case, PECO Energy Company – Gas Division's 2020 base rate case, and Aqua Pennsylvania, Inc.'s 2021 base rate case) where the Commission has rejected a "leverage adjustment." He claims that the adjustment proposed in the City of Lancaster case was much different than what he is proposing in this proceeding. Additionally, Mr. Moul explains that even though the Commission declined to make a "leverage adjustment" in the 2007 Aqua Pennsylvania case, it does not invalidate its use. Further, Mr. Moul states, "Notably, the Commission did not repudiate the leverage adjustment in the Aqua case, but instead arrived at an 11.00% return on equity for Aqua by including a separate return increment for management performance." Further, Mr. Moul states that the Commission granted basis points for management performance in the UGI Electric case to arrive at the return on equity of 9.85%. Next, Mr. Moul states that in the 2020 case Columbia accepted I&E's DCF return without regard to the leverage adjustment or management performance (Columbia Statement No. 8-R, pp. 24-25). Then Mr. Moul states that in the PECO Energy Company – Gas Division's 2020 base rate case that that the Commission arrived at a 10.24% return on equity without a leverage adjustment as it was already deemed to be on the higher side and no additional adjustment was needed. Finally, Mr. Moul states that in Aqua Pennsylvania, Inc.'s 2021 base rate case that the Commission arrived at a 10.00% return on equity without a leverage adjustment but included an adjustment for management performance (Columbia Statement No. 8-R, pp. 25-26).

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE REFERENCED PRIOR COMMISSION ORDERS IN YOUR DIRECT TESTIMONY?

A. In this proceeding, Mr. Moul is recommending a 99-basis point "leverage adjustment." To be clear, the Commission did in fact refuse to accept the leverage adjustment in the 2007 Aqua base rate case by stating "…we reject the ALJ's recommendation to allow a 65 basis point leverage adjustment."[7] The management performance points awarded to Aqua in 2007 base rate case were case-specific and in no way related to the proposed leverage adjustment. Regarding the City of Lancaster case, the Commission did not reject the leverage adjustment based on the manner in which it was calculated, but rather, the Commission stated, "…the ALJ's recommendation is in error as any adjustment to the results of the market based DCF as we have previously adopted are unnecessary and will harm ratepayers."[8] Regarding the UGI Electric case, the Commission concluded that, "…an artificial adjustment in this proceeding is unnecessary and contrary to the public interest. Accordingly, we decline to

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[7] *Pa. PUC v. Aqua Pennsylvania, Inc.*; Docket No. R-00072711, pp. 38-39 (Order entered July 31, 2008).

[8] *Pa. PUC v. City of Lancaster – Bureau of Water*; Docket No. R-2010-2179103, p. 79 (Order entered July 14, 2011).

include a leverage adjustment in our calculation of the DCF cost of equity."[9] Regarding the Columbia case, the Commission stated, "… we have adopted the ALJ's recommendation to use I&E's DCF methodology utilizing I&E's dividend yield of 3.34% and growth rate of 6.52%. As noted above, the ALJ did not specify a recommended cost of equity for Columbia in her Recommended Decision. However, we note that I&E's methodology results in an ROE of 9.86%."[10] The ALJ's Recommended Decision stated the following:

> The ALJ agrees with BIE's reasoning that Columbia Gas' calculated return on equity was flawed for five reasons: (1) the weights given to the results of the Company's CAPM, RP, and CE analyses; (2) certain aspects of Columbia's discussion of risk; (3) Columbia Gas' application of the DCF including the forecasted growth rate and leverage adjustment used; (4) Columbia's inclusion of a size adjustment, reliance on the 30-year Treasury Bond for the risk- free rate, and the use of a double-adjusted *beta* in the CAPM analysis; and (5) the Company's request for an additional 20 basis points for "strong management performance" is unjustified.[11]

While the Company accepted I&E's DCF return without regard to the leverage adjustment or management performance in the last base rate case, in the Recommended Decision, the ALJ clearly rejected the Company's proposed leverage adjustment and the Commission agreed with the ALJ's Recommended Decision, which rejected the Company's proposed leverage adjustment.

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9 *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058, pp. 93-94 (Order entered October 25, 2018).

10 *Pa. PUC v. Columbia Gas of Pennsylvania*; Inc. Docket No. R-2020-3018835, p. 137 (Order entered February 19, 2021).

11 *Pa. PUC v. Columbia Gas of Pennsylvania*; Inc. Docket No. R-2020-3018835. Recommended Decision, pp. 184-185.

In the PECO Energy – Gas Division case, the Commission stated,

> … we have adopted the ALJ's recommendation to use I&E's DCF methodology and to use I&E's CAPM calculation as a check on the reasonableness of the DCF determined cost of equity. Therefore, we shall adopt the ALJ's recommended 10.24% cost of equity. In our view, this is an appropriate cost of equity for PECO given the record developed in this proceeding.[12]

In the Recommended Decision, the ALJ agreed with I&E's recommended cost of equity which did not include a leverage adjustment.[13]

Finally, regarding the 2021 Aqua base rate case, the Commission did in fact reject the Company's proposed leverage adjustment:

> We find I&E's arguments in opposition to the Company's position to be persuasive. For example, as I&E observed, credit rating agencies assess financial risk based upon a company's booked debt obligations and the ability of its cash flow to cover the interest payments on those obligations. The agencies use a company's financial statements, and not the company's market capital structure, in conducting their analysis. It is a company's financial statements that affect the market value of the stock, and, therefore, the financial statements and the book value capital structure are relied upon in an analysis such as that done by rating agencies. I&E St. 2 at 40; I&E St. 2-SR at 10. Accordingly, we find that the record in this proceeding supports rejecting the Company's requested leverage adjustment.[14]

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12 *Pa. PUC v. PECO Energy Company – Gas Division*. Docket No. R-2020-3018929, p. 171 (Order entered June 22, 2021).

13 *Pa. PUC v. PECO Energy Company – Gas Division*. Docket No. R-2020-3018929, Recommended Decision, p. 215.

14 *Pa. PUC v. Aqua Pennsylvania, Inc*. Docket No. R-2021-3027385, pp. 166-167 (Order entered June 22, 2021).

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S ASSERTION THAT INVESTORS DO NOT BASE THEIR DECISIONS ON BOOK VALUE, BUT RATHER THE RETURN THEY WILL EARN ON THE DOLLARS THEY INVEST?

A. Mr. Moul's assertion that an investor is concerned with the return earned on dollars invested and not "some accounting value of little relevance to them," (Columbia Statement No. 8-R, pp. 26-27) is unsupported. Clearly an investor takes financial risk into consideration when determining a required return. In addition, the market capitalization information included in Value Line's reports and discussed by Mr. Moul is not the same as market value capital structure (Columbia Statement No. 8-R, pp. 26-27). Market capitalization refers to the number of shares outstanding multiplied by the current price. A market value capital structure refers to the ratio of market debt to market equity, which is not included in Value Line's reports. Therefore, Mr. Moul's contention that Value Line includes market capitalization data does not offer any support for his leverage adjustment.

Q. HAS MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY CONCERNING HIS PROPOSED LEVERAGE ADJUSTMENT CAUSED YOU TO CHANGE YOUR RECOMMENDATION?

A. No. For the reasons discussed above, I continue to recommend that Mr. Moul's leverage adjustment be rejected.

<u>CAPITAL ASSET PRICING MODEL</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR APPLICATION OF THE CAPM.

A. Mr. Moul opines that my CAPM analysis understates the cost of equity for several reasons, including my use of the yield on 10-year Treasury Notes for my risk-free rate, failure to use leverage adjusted betas, and rejection of his size adjustment (Columbia Statement No. 8-R, p. 28). Each of these topics are discussed in more detail below.

<u>RISK-FREE RATE</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR USE OF THE YIELD ON THE 10-YEAR U.S. TREASURY NOTE.

A. Mr. Moul claims that by using the 10-year Treasury Note, I introduced a systematic understatement of CAPM returns that can be traced to extraordinary monetary policy actions to deal with the recession created by the pandemic. He opines that his use of the yield on a 30-year U.S. Treasury Bond is more appropriate than my use of the yield on a 10-year Treasury Note because 30-year bonds are "more a reflection of investor sentiment of their required returns…" and are also less susceptible to Federal policy actions. (Columbia Statement No. 8-R, p. 28, line 17 through p. 29, line 5).

Q. DO YOU AGREE WITH MR. MOUL THAT USING THE YIELD OF A 30-YEAR U.S. TREASURY BOND IS MORE APPROPRIATE DUE TO A LONGER-TERM BOND BEING LESS SUSCEPTIBLE TO FEDERAL POLICY ACTIONS?

A. No. As stated in my direct testimony, I chose the 10-year Treasury Note which balances the shortcomings of the short-term T-Bill and the 30-year Treasury Bond. Although long-term Treasury Bonds have less risk of being influenced by federal policies, they have substantial maturity risk associated with the market risk. In addition, long-term Treasury Bonds bear the risk of unexpected inflation. As such, my choice of a 10-year Treasury Note is more appropriate (I&E Statement No. 2, pp. 30-31). Further, as also pointed out in my direct testimony, the Commission has agreed with I&E and recognized the 10-year Treasury Note as the superior measure of the risk-free rate of return.[15]

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR RISK-FREE RATE USED IN THE CAPM FORMULA.

A. Mr. Moul opines that I have incorrectly given weight to the yield on the 10-year Treasury Note for the third quarter of 2022 as I do for the entire five-year period encompassing 2023 to 2027. Then, Mr. Moul incorrectly recalculates the risk-free rate by averaging the 10-year treasury yield forecasts by year from 2022 through

[15] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 p. 99 (Order entered October 25, 2018).

2027 to inflate my calculated risk-free rate of 2.88% to 3.40% (Columbia Statement No. 8-R, p. 29, lines 6-16).

Q. DO YOU AGREE WITH MR. MOUL'S ANALYSIS OF YOUR RISK-FREE RATE?

A. No. Mr. Moul's new calculation proposes to give equal weight to each separate year from 2022 to 2027. The flaw with this approach is that the further out into the future one forecasts, the less reliable and more speculative the estimates become; therefore, to give the less reliable estimates equal weight would not be prudent. It is more appropriate to weight the quarters and years as I have done in my direct testimony (I&E Exhibit No. 2, Schedule No. 10). My calculation provides a more accurate estimation of the risk-free rate during the Fully Projected Future Test Year, as the further out one forecasts, the less reliable the information becomes.

<u>LEVERAGED BETAS</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE USE OF LEVERAGE-ADJUSTED BETAS.

A. Mr. Moul simply mentions my "failure to use leverage adjusted betas…" (Columbia Statement No. 8-R, p. 28). He does not offer an explanation beyond what he argued in his direct testimony.

Q. IS THE USE OF LEVERAGE-ADJUSTED BETAS IN CAPM ANALYSES APPROPRIATE?

A. No. As stated in my direct testimony, Mr. Moul's adjustment only serves to inflate the result of his CAPM analysis. Enhancements such as leverage adjusted betas are unwarranted in CAPM analyses for the same reasons that enhancements are unwarranted for DCF results. Until this type of adjustment is demonstrated in academic literature to be valid, such leverage-adjusted betas in a CAPM should be rejected. Furthermore, the Commission found no basis to add leverage adjusted betas in the most recent litigated Aqua Pennsylvania, Inc. base rate case.[16] Finally, a stock with a price movement that is greater than the overall stock market will have a beta that is greater than one and would be described as having more investment risk than the market. Due to being regulated and the monopolistic nature of utilities, very rarely do they have a beta equal to or greater than one. Therefore, in this case, to apply an adjusted beta of 1.00 to the entire industry or gas proxy group is irrational (I&E Statement No. 2, pp. 52-53).

<u>**SIZE ADJUSTMENT**</u>

Q. SUMMARIZE YOUR DIRECT TESTIMONY REGARDING A SIZE ADJUSTMENT.

A. In direct testimony, I stated that Mr. Moul's 102 basis point CAPM size adjustment is unnecessary because none of the technical literature he cited in his

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[16] *Pa. PUC v. Aqua Pennsylvania, Inc.;* Docket No. R-2021-3027385 (Order Entered May 16, 2022). *See generally* Disposition of Leverage Adjustment and Management Performance, pp. 166-167.

direct testimony supporting investment adjustments related to the size of a company is specific to the utility industry. I also presented an article by Dr. Annie Wong that demonstrated there is no need to make an adjustment for the size of a company in utility rate regulation. Finally, I noted that the Commission has rejected the application of a size adjustment to the CAPM cost of equity calculation where it agreed that the same literature the Company cites is not specific to the utility industry (I&E Statement No. 2, pp. 53-56).

Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY REGARDING A SIZE ADJUSTMENT.

A. Mr. Moul states that enormous changes have occurred in the industry since the article "Utility Stocks and the Size Effect: An Empirical Analysis" by Dr. Annie Wong was published. He also references the Fama/French study, "The Cross-Section of Expected Stock Returns," to illustrate that his size adjustment is a separate factor from beta that helps explain systematic risk and returns. Additionally, Mr. Moul opines that external factors, such as loss of larger customers and unexpected changes in expenses, can affect the financial performance of a small company. Finally, he acknowledges that in the 2020 PECO Energy – Gas Division rate case (at Docket No. R-2020-3018929), both the ALJs and the Commission determined that an adjustment for size was not necessary in utility rate regulation (Columbia Statement No. 8-R, pp. 30-31).

Q. DOES THE FAMA/FRENCH STUDY REFUTE DR. WONG'S ARTICLE?

A. No. As stated in my direct testimony, Dr. Wong's article presents evidence that although a size effect may exist for industrial stocks, it does not exist for utility stocks. As the Fama/French study is not specific to utility stocks, it does not adequately demonstrate that a size effect exists in the utility industry. In addition, the size effect that exists for industrial stocks varies to such an extent that it is difficult to predict. The difficulty in predicting the effect of size is demonstrated in the variance from year to year of the measurement of difference between the annual returns on the large and small-capitalization stocks of the NYSE/AMEX/NASDAQ in the Ibbotson *Stocks, Bonds, Bills & Inflation: 2015 Yearbook*. As stated on page 100 of the SBBI Yearbook,

> While the largest stocks actually declined in 2001, the smallest stocks rose more than 30%. A more extreme case occurred in the depression-recovery year of 1933, when the difference between the first and 10th decile returns was far more substantial. The divergence in the performance of small- and large- cap stocks is evident. In 30 of the 89 years since 1926, the difference between the total returns of the largest stocks (decile 1) and the smallest stocks (decile 10) has been greater than 25 percentage points.

Page 109 states,

> In four of the last 10 years, large-capitalization stocks (deciles 1-2 of NYSE/AMEX/NASDAQ) have outperformed small-capitalization stocks (deciles 9-10). This has led some market observers to speculate that there is no size premium. But statistical evidence suggests that periods of underperformance should be expected.

Page 112 states,

> Because investors cannot predict when small-cap returns will be higher than large-cap returns, it has been argued that they do not expect higher rates of return for small stocks.

Q. DOES THE TIME WHICH HAS ELAPSED SINCE AN ARTICLE WAS WRITTEN NECESSARILY INVALIDATE ITS RESULTS?

A. No. Although Mr. Moul states that enormous changes have occurred in the industry since the 1960s, he presents no evidence that these "changes" have caused the need for a size adjustment. To the contrary, Dr. Wong's study demonstrated that one does *not* need to be made in the regulated utility industry. As stated in my direct testimony, absent any credible article to refute Dr. Wong's findings, Mr. Moul's size adjustment to his CAPM results should be rejected.

Q. ARE MR. MOUL'S CONCERNS REGARDING THE IMPACT OF LOSING LARGE CUSTOMERS OR UNEXPECTED INCREASES IN EXPENSES VALID?

A. No. Regulated utility companies have the option to file a base rate case to address declining revenues and to recover the increasing costs of doing business in addition to emergency rate relief provisions for large unforeseen impacts. In contrast, non-utility businesses that may be significantly impacted by events of this nature due to small operating size do not have these opportunities. Additionally, while a smaller utility may pay higher prices for services and materials just due to volume buying power, the actual costs are part of the revenue requirement presented by that company, so to increase the return to account for the potential size disadvantage would only further unfairly burden ratepayers who are already likely paying higher utility bills to recover the higher operating costs.

Q. MR. MOUL HAS RECALCULATED YOUR CAPM RESULTS. DO YOU AGREE WITH HIS RECALCULATION?

A. No. Mr. Moul's recalculation is incorrect for a couple of reasons. He used an inaccurate risk-free rate and an unnecessary size adjustment, as stated in both my direct testimony and above. Because of these factors, a recalculation of my CAPM results is imprudent and any recalculation provided by Mr. Moul of my CAPM results is unreliable and unnecessary.

Q. WHAT IS YOUR RECOMMENDATION REGARDING MR. MOUL'S SIZE ADJUSTMENT?

A. I continue to recommend that his use of the 1.02% size adjustment be disallowed in calculating the CAPM.

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS REGARDING YOUR CAPM ANALYSIS?

A. Yes. My recommended cost of equity is primarily based upon my DCF analysis for the reasons explain above and in my direct testimony. I present a CAPM analysis to the Commission for comparison, not recommendation purposes as the inputs are highly subjective, and other than beta, not company or industry specific. Again, it has traditionally been the preference of the Commission to view both the DCF and CAPM analysis in base rate proceedings.

RISK PREMIUM

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE RP METHOD.

A. Mr. Moul opines that the RP approach should be given serious consideration because it is straight-forward, understandable, and uses a company's own borrowing rate. He claims it provides a direct and complete reflection of a utility's risk and return. Mr. Moul also states that I make an unfounded assertion that the RP method does not measure the current cost of equity as directly as the DCF (Columbia Statement No. 8-R, pp. 33-34).

Q. DO YOU AGREE WITH MR. MOUL THAT THE RP METHOD PROVIDES A DIRECT AND COMPLETE REFLECTION OF A UTILITY'S RISK AND RETURN?

A. No. The RP method produces an indirect measure when compared to the DCF method.

Q. PLEASE COMMENT ON THE INDIRECT MEASURE OF THE RP METHOD VERSUS THE MORE DIRECT MEASURE OF THE DCF METHOD.

A. Mr. Moul claims that my statement that the RP method does not measure the current cost of equity as directly as the DCF is without foundation. In my direct testimony, I have clearly illustrated how the two measures are different (I&E Statement No. 2, pp. 17-23). The main reason is that the RP method determines the rate of return on common equity indirectly by observing the cost of debt and adding to it an equity risk premium. The DCF measures equity more directly through the stock information (using equity information), whereas the RP method measures equity indirectly using debt information.

<u>COMPARABLE EARNINGS</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE CE METHOD.

A. Mr. Moul claims that using the CE method satisfies the comparability standard established in the *Hope* case (Columbia Statement No. 8-R, p. 35, lines 7-8). Additionally, he states, "…the financial community has expressed the view that the regulatory process must consider the returns that are being achieved in the non-regulated sector to ensure that regulated companies can compete effectively in the capital markets" (Columbia Statement No.8-R, p. 35, lines 8-11).

Q. DO YOU AGREE THAT COMPANIES USED BY MR. MOUL IN HIS CE METHOD ARE COMPARABLE TO COLUMBIA?

A. No. As stated in my direct testimony, the companies in Mr. Moul's analysis are not utilities, and therefore, are too disparate to use in a CE analysis (I&E Statement No. 2, pp. 35-36). For example, the criteria Mr. Moul uses to choose the companies in his CE group results in the selection of companies such as Dolby Laboratories Inc., Graphic Packaging, J and J Snack Foods Corp., Sherwin Williams, and Yum Brands Inc. All these companies operate in industries very different from a utility company and operate under varying degrees of regulation. Also, most, if not all, of the companies Mr. Moul uses in his analysis are not monopolies in the sense that utilities are. This means that they have significantly more competition and would require a higher return for the added risk. Further, the CE method should be excluded because it is entirely subjective as to which companies are comparable and it is debatable whether historic accounting returns are representative of the future.

MANAGEMENT PERFORMANCE POINTS

Q. SUMMARIZE MR. MOUL'S AND MR. KEMPIC'S REBUTTAL TESTIMONY REGARDING MANAGEMENT PERFORMANCE POINTS.

A. Mr. Moul simply states that the Company has performed in an exemplary manner and that it should be recognized in this case (Columbia Statement No. 8-R, p. 35, lines 19-21). He does not offer an explanation beyond what he argued in his direct testimony. Mr. Kempic states the Company has taken immediate action regarding the recommendations made in the Management and Operations Audit for Columbia Gas of Pennsylvania, Inc. that I reference in my direct testimony and that should be favorably considered by the Commission. Mr. Kempic opines that the Commission should consider the Company's desire to replace its aging distribution system which should warrant the management performance points requested in this proceeding. Finally, he acknowledges the most recent litigated Aqua Pennsylvania, Inc. (Aqua) base rate case (at Docket No. R-2021-3027385) where the Commission awarded Aqua 25 basis points for its management performance efforts by stating troubled systems are not as prevalent in the gas industry and notes that Aqua did something the Commission requested them to do (Columbia Statement No. 1-R, pp. 1-5).

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S AND MR. KEMPIC'S REBUTTAL TESTIMONY REGARDING MANAGEMENT PERFORMANCE?

A. My position remains unchanged from the arguments made in my direct testimony. Mr. Kempic is correct that the Company addressed the recommendations in the Management and Operations Audit; however, by awarding the Company management effectiveness points, it adds an increased cost to ratepayers for the Company addressing recommendations in its Management and Operations Audit during a time of increasing levels of inflation and economic decline. Furthermore, any savings from effective operating and maintenance cost measures should flow through to ratepayers and/or investors. These claimed savings would likely be offset by the addition of basis points for management effectiveness as ratepayers would have to fund the additional costs. This defeats the purpose of cutting expenses to benefit ratepayers.

Finally, as I discussed in my direct testimony, true management effectiveness is earning a higher return through its efficient use of resources and cost cutting measures. The greater net income resulting from cost savings and true efficiency in management and operations is available to be passed on to shareholders. Columbia, or any utility should not be awarded additional basis points for doing what they are required to do in order to provide adequate, efficient, safe, and reasonable service under 66 Pa C.S.A. §1501.

OVERALL RATE OF RETURN

Q. HAS YOUR OVERALL RATE OF RETURN RECOMMENDATION CHANGED FROM YOUR DIRECT TESTIMONY?

A. No. I continue to support each recommendation made in I&E Statement No. 2.

Q. PLEASE RESTATE YOUR OVERALL RATE OF RETURN RECOMMENDATION.

A. I recommend the following rate of return for Columbia:

Type of Capital	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	43.23%	4.51%	1.95%
Short-Term Debt	2.39%	1.65%	0.04%
Common Equity	54.38%	9.61%	5.23%
Total	100.00%		7.22%

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Statement No. 3-SR
Witness: Ethan H. Cline

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Surrebuttal Testimony

of

Ethan H. Cline

Bureau of Investigation and Enforcement

Concerning:

Fully Projected Future Test Year Reporting Requirements
Revenue Normalization Adjustment
Present Rate Revenue
Cost of Service Study
Scale Back of Rates

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INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Ethan H. Cline. My business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. ARE YOU THE SAME ETHAN H. CLINE WHO IS RESPONSIBLE FOR THE DIRECT TESTIMONY AND EXHIBITS CONTAINED IN I&E STATEMENT NO. 3 AND I&E EXHIBIT NO. 3, SUBMITTED ON JUNE 7, 2022, AND THE REBUTTAL TESTIMONY CONTAINED IN I&E STATEMENT NO. 3-R, SUBMITTED ON JULY 6, 2022?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to address the rebuttal testimony submitted by witnesses on behalf of Columbia Gas of Pennsylvania, Inc. ("Columbia" or "Company"): Judith Siegler (Columbia Statement No. 3-R), Kevin L. Johnson (Columbia Statement No. 6-R), and Julie Covert (Columbia Statement No. 11-R). I will also address the rebuttal testimony submitted on behalf of the Pennsylvania Office of Consumer Advocate ("OCA") by witness Jerome D. Mierzwa (OCA Statement No. 3-R), the rebuttal testimony submitted on behalf of the Pennsylvania Office of Small Business Advocate ("OSBA") by witnesses Mark D. Ewen and Robert D. Knecht (OSBA Statement No. 1-R), and the rebuttal testimony submitted on behalf of the Pennsylvania State University ("PSU") by James L. Crist, P. E. (PSU Statement No. 1-R). My surrebuttal testimony specifically addresses the following issues:

- Fully Projected Future Test Year Reporting Requirements;
- Revenue Normalization Adjustment;
- Present Rate Revenue;
- Cost of Service allocation;
- Customer Charges; and
- Scale back of rates.

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN EXHIBIT?

A. No. However, I will refer to my direct and rebuttal testimonies and exhibits in this surrebuttal testimony.

Q. DID THE COMPANY AGREE WITH ANY OF YOUR RECOMMENDATIONS?

A. Yes. The Company agreed with my recommendation regarding Fully Projected Future Test Year ("FPFTY") Reporting Requirements as presented on pages 3-5 of I&E Statement No. 3 (Columbia Gas Statement No. 11-R, pp. 6-7).

<u>REVENUE NORMALIZATION ADJUSTMENT</u>

Q. WHAT IS THE REVENUE NORMALIZATION ADJUSTMENT?

A. A revenue normalization adjustment ("RNA") is a tariff provision that is "designed to 'break the link' between residential non-gas revenue received by the Company and gas consumed by non-CAP residential customers." (Columbia St. No. 6, p. 29).

Q. DID YOU AGREE WITH THE COMPANY'S PROPOSED RNA?

A. No. On page 6 of I&E Statement No. 3, I recommended that the proposed RNA not be approved for three reasons. First, the Commission recently issued its Order in Columbia's prior base rate proceeding at Docket No. 2020-3018835 (Order entered, February 19, 2021) ("2020 Columbia Gas Rate Case Order") where it determined that the proposed RNA was unnecessary. Second, the policy statement cited by the Company as support for its position does not allow Columbia to abandon the necessity to charge just and reasonable rates. Lastly, the use of the FPFTY already provides projected lower usage levels and the Company has not demonstrated a need for such revenue stabilization in the instant proceeding.

Q. DID THE COMPANY RESPOND TO YOUR POSITION?

A. Yes. The Company did not agree with my recommendation regarding the RNA.

Q. WHY DID THE COMPANY NOT AGREE WITH YOUR RECOMMENDATION REGARDING THE RNA?

A. The Company did not agree with my recommendation regarding the RNA for all three reasons. First, the Company claimed that the Commission did not determine that the RNA was not necessary. Second, Columbia claimed that the introduction of the RNA does not abandon the Company's necessity to charge just and reasonable rates. Third, the Company claimed that the FPFTY mitigates, but does not eliminate, the need for the RNA (Columbia St. No. 3-R, pp. 41-44).

Q. WHY DID THE COMPANY CLAIM THAT THE COMMISSION DID NOT DETERMINE THAT THE RNA WAS NOT NECESSARY?

A. On page 42 of Columbia Statement No. 3-R, the Company cited to pp. 264-265 of the 2020 Columbia Gas Rate Case Order , which stated that the ALJ recommended that the Commission deny the RNA proposal because "Columbia failed to prove the RNA Rider is ***needed*** and reasonable, or that the RNA Rider will result in rates that are just, reasonable, and in the public interest. Further, the Company did not show its current rates and systems of revenue streams will fail to provide revenue stability." (Docket No. R-2020-3018835, Order entered, February 19, 2021) (emphasis added). Witness Johnson then attempted to claim that the 2020 Columbia Gas Rate Case Order applied only to the RNA in that specific case and also noted that "Columbia did not file any Exceptions to this issue in the 2020 case, and thus did not present full argument to the Commission on this issue." (Columbia St. No. 3-R, p. 42)

Q. DID THE COMMISSION, IN ITS 2020 COLUMBIA GAS RATE CASE ORDER, GIVE ANY INDICATION THAT ITS DECISION APPLIED TO THE RNA ONLY IN THAT CASE?

A. No. The disposition of this issue, on page 264 of the 2020 Columbia Gas Rate Case Order simply stated that "[w]e find that the ALJ's recommendation is supported by ample record evidence and is just and reasonable. Accordingly, we shall adopt it without further comment."

Q. DID COLUMBIA GAS PROVIDE ANY SUPPORT IN THE PRESENT PROCEEDING TO COUNTER THE COMMISSION'S RULING THAT THE RNA IS NOT NEEDED, NOT JUST AND REASONABLE, AND NOT IN THE PUBLIC INTEREST?

A. No. As I stated on page 6 of I&E Statement No. 3, the Company did not make any substantial changes to the RNA proposal that was denied in Columbia's 2020 base rate case. Therefore, because the Company's current proposal is unchanged from the Company's proposal in the 2020 base rate case that was recently rejected by the Commission as not needed, not just and reasonable, and not in the public interest, there is no reason or expectation that the Commission would change its decision to deny the RNA in this case.

Q. WHY DID COLUMBIA CLAIM THAT THE INTRODUCTION OF THE RNA DOES NOT ABANDON THE COMPANY'S NECESSITY TO CHARGE JUST AND REASONABLE RATES?

A. On page 43 of Columbia Statement No. 3, witness Johnson stated that the Company did not abandon its necessity to charge just and reasonable rates because the base rates established by the Commission in this case will be just and reasonable. Witness Johnson then claimed that the RNA would complement the residential rate design to better ensure the revenue requirement assigned to the residential class is not over or under recovered due strictly to rate design.

Q. DO YOU AGREE THAT THE INTRODUCTION OF THE RNA WOULD LEAD TO RATES THAT ARE JUST AND REASONABLE?

A. No. As I stated on page 7 of I&E Statement No. 3, and above, the Commission ruled in the 2020 Columbia Gas base rate case that the RNA would not result in rates that are just, reasonable, and in the public interest. As the Company has proposed essentially the same RNA proposal in this case with no adjustments introduced to counter the Commission's ruling, then that ruling clearly states that the proposal would necessarily lead to rates that are not just, reasonable, or in the public interest.

Q. WHY DOES COLUMBIA CLAIM THAT THE NEED FOR THE RNA IS MITIGATED, BUT NOT ELIMINATED, BY THE USE OF THE FPFTY?

A. On page 43 of Columbia Statement No. 3-R, witness Johnson states that the RNA is needed because "Columbia's financial health directly relies upon its ability to recover the cost of service approved by the Commission through the base non-gas revenues upon which its base rates were previously established."

Q. IS THE PROBLEM OF REVENUE STABILITY AN ISSUE THAT REQUIRES ELIMINATION, RATHER THAN MITIGATION, AS THE COMPANY SUGGESTS?

A. No. Every utility in the Commission's jurisdiction must deal with the issue of balancing revenue stability with rate affordability and conservation efforts. Even though Columbia has proposed the RNA and not been granted the RNA in several rate cases, the Company has continued to provide its customers with safe and reliable service while maintaining an aggressive main replacement program. The Company has not provided any evidence to support its claimed need for additional rate stability beyond what is provided through the FPFTY.

Q. DOES THE COMPANY'S CLAIM THAT IT DID NOT FILE EXCEPTIONS TO THE RECOMMENDED DECISION IN THE 2020 BASE RATE PROCEEDING SUPPORT ITS POSITION IN THIS CASE?

A. No. The Company's decision not to file exceptions on the RNA in the 2020 case does not change the fact that the Commission rejected the RNA as it was proposed in that case, and the Company has not altered its proposal in any meaningful manner in this proceeding. Therefore, stating that the proposal was not fully described by the Company in the most recently litigated case does not support approving it in this case.

Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION?

A. No. I continue to recommend that the RNA be denied.

<u>COST OF SERVICE</u>

Q. DID THE COMPANY PROVIDE AN ALLOCATED COST OF SERVICE STUDY IN THIS PROCEEDING?

A. Yes. The Company performed and provided three allocated cost of service ("ACOS") studies in its filing sponsored by Columbia witness Johnson as described on pages 2-3 of Columbia Statement No. 3-R. The first is a customer-demand ACOS study (Columbia Exhibit No. 111, Schedule 1), the second is a peak and average ACOS study (Columbia Exhibit No. 111, Schedule 2), and the third ACOS study is an average of the customer-demand studies and the peak and average studies (Columbia Exhibit No. 111, Schedule 3).

Q. WHICH OF THE THREE ACOS STUDIES DID THE COMPANY UTILIZE TO ALLOCATE THE PROPOSED REVENUE INCREASES?

A. The Company utilized the second ACOS study, which is the peak and average study, presented on Columbia Exhibit No. 111, Schedule No. 2 to allocate the proposed revenue increases (Columbia St. No. 3-R, p. 3). However, the Company indicated in rebuttal testimony that it also relied upon the other studies to allocate additional cost to the residential rate class.

Q. WHICH ACOS STUDY DID YOU RECOMMEND THE COMMISSION USE?

A. I agreed with the Company's use of the peak and average ACOS study provided by the Company on Columbia Exhibit No. 111, Schedule 2 to allocate the final revenue increases among the different customer classes (I&E St. No. 3, p. 13).

Q. DID THE COMPANY PROVIDE ANY CORRECTIONS TO ITS ACOS IN REBUTTAL TESTIMONY?

A. Yes. On pages 14-16 of Columbia Statement No. 6-R, the Company described several technical corrections that were found during the discovery process. Mr. Johnson further indicated that the result of the changes does not warrant an adjustment to the Company's proposed revenue apportionment and rate design in this case.

Q. DO YOU ACCEPT THE COMPANY'S CORRECTIONS?

A. Yes. The corrections outlined by the Company are reasonable.

Q. DO YOU WISH TO REVISE ANY OF YOUR RECOMMENDATIONS THAT WERE BASED UPON THE COMPANY'S COSS?

A. No. The results of the corrections do not warrant an adjustment to my recommendation regarding the revenue reallocation and scale back discussed below.

Q. DID THE COMPANY USE ONLY THE PEAK AND AVERAGE ACOS TO DETERMINE ITS PROPOSED ALLOCATIONS IN THIS PROCEEDING?

A. No. Based on the testimony provided in Columbia Statement No. 6-R, pp. 7-12, the Company took into consideration several other factors and cost of services studies when determining its proposed revenue allocations.

Q. HOW DID PARTIES RESPOND TO YOUR RECOMMENDATION THAT ONLY THE PEAK AND AVERAGE ACOS SHOULD BE USED IN THIS PROCEEDING?

A. The Company disagreed with my recommendation and stated that it does not believe that basing the revenue allocation in this case entirely on the Peak and Average ACOS would produce a reasonable result, particularly with respect to the mains cost to the LDS/LGSS rate class (Columbia Gas St. No. 6-R, p. 7). PSU

Witness Crist opposed my use of only the peak and average ACOS in allocating costs in this proceeding stating that I did not address that the ALJ in the Columbia 2020 base rate case preferred the customer-demand ACOS but did not use it due to errors (PSU St. No. 1-R, p. 2). OSBA witnesses Knecht and Ewen disagreed with my recommendation and instead expressed a preference for their own adjusted Peak and Average allocation (OSBA St. No. 1-R). OCA witness Mierzwa also expressed a preference for its own allocation methodology but indicated that it is not opposed to my recommendation should the Commission not agree with the OCA methodology (OCA St. No. 3R, p. 2).

Q. PLEASE RESPOND TO THE COMPANY'S POSITION THAT THE INCREASES BY CLASS SUPPORTED BY THE PEAK AND AVERAGE STUDY WOULD NOT PRODUCE REASONABLE RESULTS.

A. On page 12 of Columbia Statement No. 6-R, the Company stated that it used the Peak and Average methodology for its cost of service study, but it "must ensure that the allocation to the rate classes are fair and reasonable." It then pointed to the allocation of mains cost to the LDS/LGSS rate class as support for its belief that using the Peak and Average methodology as the sole basis of determining the allocation of revenue is not fair or reasonable. However, the Company's proposal to increase the allocation to the residential class based on factors not included in the Peak and Average study is inconsistent with the 2020 Columbia Gas Rate Case Order, which stated that the Peak and Average methodology is "the most appropriate allocation methodology to use in this proceeding because it is based on the premise of load-based investment." (Docket No. R-2020-3018835, p. 215 (Order entered February 19, 2021). Additionally, it is inconsistent with the Commonwealth Court's decision in Lloyd v. Pennsylvania Public Utility Commission, 904 A.2d 1010 (Pa. Cmwlth. 2006). Specifically, on page 18, the *Lloyd* decision stated that gradualism concerns do not trump the need to move costs towards cost of service. Therefore, the Company's proposal to shift cost from the LDS/LGSS rate class to the residential rate class, contrary to the Peak and Average cost of service study, is not reasonable.

Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION REGARDING THE ACOS?

A. No. I continue to recommend that the Company use only the Peak and Average cost of service methodology to determine its revenue allocations rather than a mix of factors as described above.

Q. PLEASE RESPOND TO THE PSU OPPOSITION TO THE USE OF THE PEAK AND AVERAGE ACOS IN COST ALLOCATION.

A. As I stated in I&E Statement No. 3-R, the purpose of which was to rebut PSU witness Crist's position regarding the ACOS, Mr. Crist's analysis of the 2020 Columbia Gas Rate Case Order is inaccurate and misleading (I&E St. No. 3-R, p.

4). Therefore, I continue to recommend that the Peak and Average methodology be used to allocate costs in this proceeding.

Q. WHAT IS THE BASIS FOR THE OSBA'S ADJUSTMENT TO THE PEAK AND AVERAGE ACOS?

A. As stated on page 2 of OSBA St. No. 1-R, OSBA witnesses Knecht and Ewen stated that they adjusted their ACOS recommendation based on "what appears to be a significant shift in either the behavior of customers or in the Company's method for deriving design day demands." The OSBA also recommended adjustments to the ACOS based on technical corrections which I addressed above.

Q. PLEASE RESPOND TO THE OSBA ADJUSTMENT TO THE PEAK AND AVERAGE ACOS.

A. The Company provided a response to OSBA's claim regarding the design day demand shift on pages 16-30 of Columbia Gas Statement No. 6-R. The Company's response to OSBA's claim appears to be reasonable, therefore I support the Company's position that the OSBA's adjustment should be denied.

Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION REGARDING THE COMPANY'S ACOS?

A. No. I continue to recommend that the Commission use only the peak and average

ACOS study provided by the Company on Columbia Exhibit No. 111, Schedule 2 to allocate the final revenue increases among the different customer classes.

REVENUE ALLOCATION

Q. WHAT DID YOU RECOMMEND REGARDING REVENUE ALLOCATION?

A. I recommended that $600,000 of revenue be reallocated from the RSS/RDS class to the SDS/LGSS class (I&E St. No. 3, p. 17).

Q. WHY DID YOU RECOMMEND A REALLOCATION OF $600,000 FROM THE RSS/RDS RATE CLASS TO THE SDS/LGSS RATE CLASS?

A. As I stated on pages 15-17 of I&E Statement No. 3, the SDS/LGSS class is the only customer class that has had its relative rate of return move further away from the system average relative rate of return following recent base rate cases. This, along with its relative rate of return being below the system average relative rate of return shows that the SDS/LGSS rate class is being subsidized by the RSS/RDS rate class under present rates and that subsidization was not being sufficiently reduced under proposed rates in this base rate case. I also recommended that the first $20 million of any scale back be applied to the RSS/RDS class. I will discuss the parties' response to my scale back recommendation below.

Q. DID ANY PARTIES DISAGREE WITH YOUR REALLOCATION RECOMMENDATION?

A. Yes. The Company and the OSBA objected generally to my reallocation recommendation based on their disagreement with my use of the Peak and Average ACOS, as discussed above, without specifically addressing my recommendation to reallocate $600,000.

Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION?

A. No. As I discussed above, I continue to recommend the Commission use solely the Peak and Average ACOS to determine revenue allocations. Therefore, I continue to recommend $600,000 be reallocated from the RSS/RDS class to the SDS/LGSS rate class as described in my direct testimony.

<u>CUSTOMER COST ANALYSIS</u>

Q. WHAT DID YOU RECOMMEND REGARDING THE COMPANY'S CUSTOMER COST ANALYSES?

A. I recommended the Company's customer cost analysis that includes the cost of mains should not be considered (I&E St. No. 3, pp. 16-17).

Q. DID THE COMPANY RESPOND TO YOUR RECOMMENDATION?

A. Yes. Mr. Johnson stated on page 33 of Columbia Statement No. 6-R that "[a] customer charge should include at a minimum the incremental cost the utility incurs in connecting a customer to the distribution system." He also stated that the customer cost analysis shows a minimum floor in which fixed costs should be recovered.

Q. DO YOU AGREE WITH THE WITNESS JOHNSON'S STATEMENTS REGARDING THE CUSTOMER COST ANALYSIS?

A. No. First, the Commission has previously determined the costs that should be allowed in a customer cost analysis. The cost of mains is not included in those costs. In fact, on page 218 of the 2020 Columbia Gas Rate Case Order, the Commission used Columbia's acknowledgement of the Commission's preference that no portion of fixed costs or depreciation expense associated with mains should be allocated to the customer cost function as further support for its conclusion that the allocation of mains should not be based on the number of customers. Therefore, witness Johnson's statement regarding the customer cost analysis including the incremental cost to serve does not comport with Commission precedent.

Second, the Company's position that the customer cost analysis provides a minimum floor for which fixed costs should be recovered is entirely incorrect. Specifically delineating costs that are approved by the Commission to be recovered through the customer cost and then setting rates that recover more than those costs, as the Company suggests, makes no sense. The customer cost analysis, in my experience, has always been set as the maximum limit of the customer charge.

Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION?

A. No. For the reasons described above, I continue to recommend the Company's customer cost analysis that includes the cost of mains should not be considered.

<u>CUSTOMER CHARGES</u>

Q. WHAT DID YOU RECOMMEND REGARDING THE COMPANY'S PROPOSED CUSTOMER CHARGE?

A. On pages 22-23 of I&E Statement No. 3, I recommended that the entire $20 million first dollar relief I discuss in my scale back proposal below be applied to the residential customer charge. I also indicated that based on the customer cost analysis, not including the cost of mains, the customer charges for the SGS1, SGS2, and SDS/LGSS classes are too high. I recommended those customer charges be adjusted to be consistent with the customer cost analysis as follows:

Rate Schedule (Therms, annually)	Customer Cost Analysis	Company Present Rate	Company Proposed Rate	Change	I&E Proposed Rate
	SGSS1, SCD1, SGDS1				
≤6,440	$28.36	$29.92	$34.23	($5.87)	$28.36
	SGSS2, SCD2, SGDS2				
>6,440 to ≤64,440	$57.00	$57.00	$65.36	($8.36)	$57.00
	SDS/LGSS				
>64,400 to ≤110,000	$267.11	$265.00	$319.30	($52.19)	$267.11
>110,000 to ≤540,000	$1,403.41	$1,050.11	$1,265.29	$0.00	$1,265.29

Q. DID ANY PARTIES RESPOND TO YOUR CUSTOMER CHARGE RECOMMENDATION?

A. Yes. First, Columbia witness Johnson, on page 17 of Columbia Statement No. 3-R, disagreed with my recommendation based on his assumptions regarding the customer cost analysis as discussed above. Second, OCA witness Mierzwa opposed my customer charge recommendations because he claimed the Company's customer charge is already the highest in the Commonwealth, Columbia's proposed residential customer charge and a high fixed customer charge is inconsistent with the Commission's general goal of fostering energy conservation (OCA St. No. 3R, p. 3-4).

Q. DO YOU BELIEVE THE COMPARISON OF CUSTOMER CHARGES OF THE OTHER PENNSYLVANIA NATURAL GAS DISTRIBUTION COMPANIES SHOULD BE A DETERMINING FACTOR IN COLUMBIA'S CUSTOMER CHARGES?

A. No. Each Pennsylvania NGDC has their own specific costs and allocation of these costs which in turn produces different results. Therefore, the rates of each company should be determined based on the facts and data specific to that company. The customer charges I recommend are based on the customer cost analysis using the data specific to this case.

Q. DO YOU AGREE WITH OCA WITNESS MIERZWA THAT A HIGH FIXED MONTHLY CUSTOMER CHARGE COULD BE INCONSISTENT WITH THE COMMISSION'S GENERAL GOAL OF FOSTERING ENERGY CONSERVATION?

A. Yes. However, I believe that my recommendation to include the customer charge in the scale back of rates would serve to mitigate the impact to low usage customer and be consistent with the Commission's general goal of fostering energy conservation while recognizing that the Company's allowed fixed costs are increasing as shown in the customer cost analysis.

Q. DO YOU WISH TO CHANGE YOUR CUSTOMER CHARGE RECOMMENDATION?

A. No. For the reasons discussed above, I continue to recommend the customer charges shown in the table above.

<u>CUSTOMER CHARGE – MISCELLANEOUS</u>

Q. WHAT WAS YOUR RECOMMENDATION REGARDING THE PRORATION OF COLUMBIA'S CUSTOMER CHARGE?

A. I recommended that Columbia begin prorating its customer charge for customers who begin or end service prior to the end of the billing period and adjust its tariff to reflect this practice (I&E St. No, 3, p. 24).

Q. WHY DID YOU RECOMMEND COLUMBIA GAS BEGIN PRORATING ITS CUSTOMER CHARGE FOR CUSTOMERS WHO BEGIN OR END SERVICE PRIOR TO THE END OF THE BILLING PERIOD?

A. As I stated on I&E Statement No. 3, p. 25, this recommendation will rectify the current Company policy of charging customers for service not received. Columbia's explanation that the customer charge is designed to recover certain costs in a month whether or not a customer receives service for the entire month is without merit. It is simply not reasonable to charge customers for services that they do not receive.

Q. HOW DID THE COMPANY RESPOND TO YOUR RECOMMENDATION?

A. The Company provided additional information regarding the impacts of my recommendation regarding the proration of customer charges (Columbia Gas St. No. 6-R, pp. 30-32 and St. No. 3-R, pp. 1-6).

Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION?

A. Yes. Based upon the new information provided by the Company, I would like to withdraw my recommendation regarding the proration of the customer charge in this case.

<u>SCALE BACK OF RATES</u>

Q. WHAT SCALE BACK METHODOLOGY DID YOU RECOMMEND IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. If the Commission grants less than the Company's requested increase, I recommended that the first $20,000,000 reduction be applied to the RSS/RSD class (I&E Ex, No. 3, Sch. 6, p. 2, line 13). Any remaining reduction should be applied on a proportional basis to the percentage increases shown on I&E Ex. No. 3, Sch. 6, p. 2, line 16, except for the SDS/LGSS and LDS/LDSS class (I&E St. No. 3, p. 26).

Q. PLEASE SUMMARIZE THE RATIONALE OF YOUR SCALEBACK RECOMMENDATION.

A. As I stated on pages 26-27 of I&E Statement No. 3, under the Company's proposed revenue allocation, the residential class is providing an approximately $20 million subsidy to the other rate classes. Therefore, it is reasonable to remove that subsidy prior to any further scale back of rates. Additionally, because the LDS/LGSS class relative rate of return is significantly under the system average relative rate of return (taking into account the flex rate revenue shortfall), it makes sense that the LDS/LGSS does not receive a scale back.

Q. DID THE COMPANY OPPOSE YOUR PROPOSED SCALE BACK METHODOLOGY?

A. Yes. Mr. Johnson, on page 16 of Columbia Statement No. 6-R, stated that my recommendation is trying to get to parity in one rate case but by doing so I am exceeding any reasonable definition of gradualism.

Q. DOES YOUR PROPOSAL RESULT IN UNREASONABLE RATES?

A. No. Since I'm starting with the rates proposed by the Company. It makes no sense for the Company to now claim that those exact rates will somehow become unreasonable if the Commission grants less than the full increase. The higher percentage increase for the LDS/LGS class is necessary to move the relative rate of return of this class towards one under proposed rates. If these rates were reasonable to begin with, they will be reasonable after the final order.

Q. DID ANY OTHER PARTIES OPPOSE YOUR PROPOSED SCALE BACK METHODOLOGY?

A. Yes. OSBA witnesses Knecht and Ewen opposed my recommendation and concluded that my scale back proposal is inconsistent with rate gradualism constraints in Pennsylvania, exacerbates subsidies provided by the SGS1 class, and assigns inequitable rate increases to the Medium and Large General Service rate classes (OSBA St. No. 1-R, p. 7).

Q. DO YOU AGREE WITH OSBA?

A. No. My recommendation is reasonable because, as shown on Table IEc-3R on page 6 of OSBA Statement No. 1-R, under proposed rates the highest percentage increase for a class is 22.5% or approximately 2.1 times the system average increase. This is a reasonable increase given the low relative rate of return for these classes based on the appropriate Peak and Average ACOS.

Q. DO YOU WISH TO CHANGE YOUR SCALE BACK RECOMMENDATION?

A. No.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Statement No. 4-SR
Witness: Tyler Merritt

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

COLUMBIA GAS OF PENNSYLVANIA, INC.

Docket No. R-2022-3031211

Surrebuttal Testimony

of

Tyler Merritt

Bureau of Investigation & Enforcement

Concerning:

DISTRIBUTION INTEGRITY MANAGEMENT PLAN
PIPELINE REPLACEMENT
LONG TERM INFRASTRUCTURE IMPROVEMENT PLAN
CURB VALVES IN SERVICE LINES

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<u>INTRODUCTION</u>

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Tyler Merritt. My business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. ARE YOU THE SAME TYLER MERRITT WHO SUBMITTED I&E STATEMENT NO. 4 AND I&E EXHIBIT NO. 4 ON JUNE 7, 2022?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to address the rebuttal testimony of Columbia Gas of Pennsylvania, Inc.'s ("Columbia" or "Company") witness C.J. Anstead (Columbia St. No. 14-R) and Mark Kempic (Columbia St. No. 1-R).

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. No. However, I will refer to my direct testimony and exhibits in this surrebuttal testimony.

Q. WHAT ISSUES WILL YOU ADDRESS IN COMPANY REBUTTAL TESTIMONY?

A. I will address Witness Anstead's explanation of how the Company selects sections of pipeline for replacement and why the Company proposes to add first-generation, or pre-1982, plastic to its replacement schedule. I will also address witness Kempic's discussion of the Company's use of curb valves.

FIRST GENERATION PLASTIC PIPE REPLACEMENT AND LTIIP GOALS

Q. DID COLUMBIA RESPOND TO YOUR RECOMMENDATION THAT THE INSTALLATION YEAR OF PLASTIC PIPE SHOULD BE TRACKED WHEN A LEAK IS DISCOVERED?

A. Yes. Witness Anstead clarified that the installation date of pipe may not be possible to obtain from the leaking material; however, the Company "will be educating employees on the importance of capturing all available data including date of installation when completing the leak clearance information." [1]

Q. DO YOU AGREE WITH THE COMPANY'S RESPONSE REGARDING THE TRACKING OF PIPELINE INSTALLATION DATES WHEN A LEAK IS DISCOVERED?

A. Yes, I agree that Columbia employees should track all available information including installation date when a leak is discovered. Further, I would like to emphasize the importance of Company employees attempting to obtain a manufacture date on the plastic pipe when it is exposed during leak repair, when possible. In my opinion, identifying the total number of first-generation plastic

[1] Statement No. 14-R, p. 10.

failures each year is a valuable data point when accurately assigning a risk score to that asset.

I would also like to add that one of the aspects of the Distribution Integrity Management Plan ("DIMP") is capturing all information on the system. Capturing as much information as possible upon the discovery of a leak enhances DIMP.

Q. DID COLUMBIA RESPOND TO YOUR RECOMMENDATION THAT THE COMPANY INCREASE REPLACEMENT EFFORTS TO MEET THE GOALS ESTABLISHED IN THE 2012 AND 2017 LTIIP'S?

A. Yes. Witness Anstead stated the Company plans to continue replacement of bare steel, cast iron, and wrought iron, at an accelerated rate; however, the Company also identifies first-generation plastic as a high asset category risk. - Pipeline segments are identified for replacement based on risk. Columbia engineers then analyze the surrounding area to determine the appropriate scope of the project. This allows Columbia to replace infrastructure in a cost-effective manner. First-generation plastic will continue to be part of the evaluation process moving forward.[2]

[2] Statement No. 14-R, pp. 6-7.

Q. DO YOU AGREE WITH THE COMPANY'S RESPONSE REGARDING INCREASED PIPELINE REPLACEMENT EFFORTS TO MEET THE GOALS ESTABLISHED IN THE 2012 AND 2017 LTIIP'S?

A. No. I believe that the Company should continue to prioritize the goal of having all bare steel, cast iron, and wrought iron removed from the system by 2029 and first-generation plastic replacement should be done in addition to meeting that goal. Bare steel, cast iron, and wrought iron pipe was identified for replacement by the Company in NC-30-07[3] and the goal to have all of it removed from the system by 2029 was established in the 2012 LTIIP [4] and NC-30-07. The Company has been aware of its commitment to meet this goal for approximately ten years and should have properly allocated the funds to meet this goal. I acknowledge that first generation plastic is a threat, but Columbia is not able to provide a leak rate on first-generation plastic pipe. The Company has not provided enough evidence to support that first-generation plastic poses the same level of risk as bare steel. Columbia should take all available measures to manage risks associated with first generation plastic; however, Columbia should also increase replacement efforts to meet the goals stated in its 2012 and 2017 LTIIPs.

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[3] I&E Exhibit No. 7, Schedule 3 at Docket No. R-2012-2321748.

[4] Petition of Columbia Gas of Pennsylvania, Inc. for Approval of its Long Term Infrastructure Improvement Plan at Docket No. P-2012-2338282, p. 6.

Q. WITNESS ANSTEAD RAISES CONCERNS THAT "LEAKS PER MILE IS NOT THE OPTIMAL METRIC TO EVALUATE THE RISK ASSOCIATED WITH PRE-1982 PLASTIC PIPE." DO YOU AGREE?

A. No. I believe that leaks per mile of first-generation plastic or a leak history showing how many leaks are caused by brittle-like cracking, rock impingement, and shear/bending stress is a very effective data point in quantifying risk and comparing risky assets. I believe that Columbia should use all available information when quantifying risk on its system and that leak history or leak per mile trends should be considered in that process.

On page 10, lines 5-9, Witness Anstead states "Failure of this type of pipe – similar to cast iron - does not always exhibit a leak history prior to failure. The failure on this pipe is not due to corrosion like that of bare steel and it is not as predictable, but instead pre-1982 plastic with no leak history can fail due to premature brittle-like cracking caused by rock impingement, shear/bending or squeeze-off stress." While I acknowledge that bare steel usually shows signs of leakage before failure and pre-1982 plastic pipe is unpredictable and can fail without indication of any leaks, bare steel main or any other material can also fail in the same manner and be unpredictable. Since bare steel main typically leaks before total failure and has shown a much higher hazardous leak rate, bare steel main could pose a greater risk to public safety. Witness Anstead also states that the Company does not anticipate seeing a significant decrease in the bare steel leak rate "because the remaining miles of bare steel mains continue to age and deteriorate even though the overall mileage of bare steel pipe is reduced year over year."[5] In my opinion, this statement exemplifies that despite the Company's efforts to replace bare steel main, the remaining bare steel pipeline is deteriorating as it ages and the leak rate is increasing. Columbia has not replaced the deteriorating bare steel mains fast enough to keep up with the increasing leak rate in the existing mains. While both first-generation plastic and bare steel main are prone to failure at any time and without any indication of leaks, bare steel main continues to exhibit a high leak rate which poses a greater threat risk to the public.

Q. IN DIRECT TESTIMONY DID YOU GIVE AN ESTIMATED TIMEFRAME FOR COLUMBIA TO REPLACE ALL BARE STEEL, CAST IRON, AND WROUGHT IRON PIPE?

A. Yes. In my direct testimony, I stated that it would take Columbia 15 years to replace all bare steel, cast iron, and wrought iron. This estimation was based on at-risk main percentages replaced per year rather than miles replaced per year.

Q. DO YOU HAVE A CORRECTION TO THAT ESTIMATION?

A. Yes. Using miles replaced per year instead of the at-risk main percentages, my estimation is that it will take Columbia approximately 12.8 years to replace all bare steel, cast iron, and wrought iron main. Even with my updated estimation,

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5 Statement No. 14-R, p. 8.

this would still be significantly later than the 2029 goal set in the first and second LTIPPs.

Q. DID THE COMPANY AGREE THAT IT WOULD TAKE APPROXIMATELY 15 YEARS TO REPLACE ALL BARE STEEL, CAST IRON, AND WROUGHT IRON IN ITS SYSTEM?

A. No. Witness Anstead stated that, because cast iron's failure rate is not as predictable as the failure rate of bare steel and due to the relatively low amount of remaining mileage, Columbia advanced the removal of cast iron to eliminate the risk from this asset group entirely. Witness Anstead also states that first-generation plastic pipe is growing in risk and that the purpose of the annual DIMP reviews is to evaluate the riskiest assets to take appropriate risk reduction measures. Columbia believes that it is more important to replace the riskiest assets rather than adhere to a plan that may no longer be the optimal plan to reduce risk. Witness Anstead also notes that Columbia plans to continue increasing its investment in replacing aging infrastructure.[6]

Q. WHAT IS YOUR RESPONSE?

A. As of January 1st, 2022, Columbia's distribution system contained 997.4 miles of bare steel, 45.4 miles of wrought iron, and 1.3 miles of cast iron. When totaled,

[6] Statement No. 14-R, pp. 11-12.

there were 1,044.1 miles of bare steel, cast iron, and wrought iron in their system at the beginning of 2022.[7] In the last five years, Columbia has replaced an average of 81.7 miles of bare steel, cast iron, and wrought iron per year.[8] If Columbia continues at this replacement rate, it will take 12.8 years to replace all bare steel, cast iron, and wrought iron in its system.

Q. HOW LONG WOULD IT TAKE COLUMBIA TO REPLACE ALL PRIORITY PIPE IF FIRST GENERATION PLASTIC WAS ADDED TO THE PRIORITY PIPE CATEGORY?

A. Columbia's distribution system contained 633.5 miles of first-generation plastic in its system at the beginning of 2022.[9] If first generation plastic was added to the bare steel, cast iron, and wrought iron replacement schedule and Columbia continued to replace pipe at the same rate as the last five years, it would take 20.5 years to replace all the priority pipe identified by the Company.

[7] I&E Exhibit No. 4, Schedule No. 4, p. 2.
[8] I&E Exhibit No. 4, Schedule No. 3, p. 2.
[9] I&E Exhibit No. 4, Schedule No. 4, p. 2.

Q. SINCE YOU BELIEVE COLUMBIA SHOULD MEET THE GOAL STATED IN ITS LTIIP'S, DOES THAT MEAN THAT COLUMBIA SHOULD FOCUS SOLELY ON THE LTIIP GOAL AND STOP REPLACING FIRST GENERATION PLASTIC?

A. In my opinion, Columbia should always prioritize public safety and replacing its riskiest assets. Any first-generation plastic replacement should be done in addition to meeting the replacement schedule established in the 2012 and 2017 LTIIPs.

<u>CURB VALVES IN SERVICE LINES</u>

Q. BRIEFLY EXPLAIN THE CONCERNS RAISED AT THE PUBLIC INPUT HEARING BY MR. GEORGE MILLIGAN REGARDING THE INSTALLATION OF CURB VALVES ON COLUMBIA'S SYSTEM.

A. In the public hearing on June 1, 2022, Mr. Milligan raised concerns that Columbia was not installing curb box safety shutoff valves on low pressure to 10 pound per square inch gauge (psig) systems. Mr. Milligan believes that the lack of installation of curb box safety shutoff valves poses a risk when first responders arrive at an emergency and need to shut off gas flow to the house. Mr. Milligan also claimed that he submitted a CAP (Corrective Action Program) on Columbia's system to address the issue.[10]

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[10] Transcript, p. 34.

Q. IN STATEMENT NO.1, WITNESS MARK KEMPIC ADDRESSED MR. MILLIGAN'S CONCERNS REGARDING THE INSTALLATION OF CURB VALVES ON COLUMBIA'S SYSTEM. PLEASE SUMMARIZE COLUMBIA'S RESPONSE.

A. Witness Kempic stated that Mr. Milligan has submitted two CAPs on the matter, and after a thorough analysis, Columbia determined that a curb shutoff valve was not required because "less than 0.3% of priority calls require a cub valve to be cut in for emergencies and the Company's installation of excess flow valves which automatically shut off the flow of gas when a line ruptures." Columbia states that its procedures require a shut off valve outside of the home and outline when a curb valve should be installed. A meter valve provides quicker shutoff in the event of an emergency due to the valve being above ground, next to the meter, and easily locatable. [11]

Q. DO YOU AGREE THAT COLUMBIA'S PRACTICE COMPLIES WITH THE REGULATIONS?

A. Yes. According to §192.365, "each service line must have a shutoff valve in a readily accessible location that, if feasible, is outside of the building." §192.365 also states, "Each service line valve must be installed upstream of the regulator or, if there is no regulator, upstream of the meter." §192.365 does require a "covered

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[11] Statement No. 1-R, pp. 18-19.

durable curb box or standpipe" for each underground service line valve, but it does not specify that an operator must install the upstream shutoff valve at the curb. It is a common practice for operators to install an upstream valve at the riser and not at the curb. This practice is satisfactory according to §192.365.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No: R-2022-3031211
	:	
Columbia Gas of Pennsylvania, Inc.	:	

VERIFICATION OF D. C. PATEL

I, **D. C. Patel**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that **I&E Statement No. 1 (Proprietary), I&E Statement No. 1 (Non-Proprietary), I&E Exhibit No. 1 (Proprietary), I&E Exhibit No. 1 (Non-Proprietary), I&E Statement No. 1-R, I&E Exhibit No. 1-R, I&E Statement No. 1-SR (Proprietary), and I&E Statement No. 1-SR (Non-Proprietary)** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in Harrisburg, Pennsylvania, this 2nd day of August, 2022.

/s/DCPATEL
D. C. Patel

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No: R-2022-3031211
	:	
Columbia Gas of Pennsylvania, Inc.	:	

VERIFICATION OF CHRISTOPHER KELLER

I, **Christopher Keller**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that **I&E Statement No. 2, I&E Exhibit No. 2 and I&E Statement No. 2-SR** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in New Cumberland, Pennsylvania, this 2nd day of August, 2022.

/s/ Christopher Keller
Christopher Keller

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No: R-2022-3031211
	:	
Columbia Gas of Pennsylvania, Inc.	:	

VERIFICATION OF ETHAN H. CLINE

I, **Ethan H. Cline**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that **I&E Statement No. 3, I&E Exhibit No. 3, I&E Statement No. 3-R and I&E Statement No. 3-SR** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in New Bloomfield, Pennsylvania, this 2nd day of August, 2022.

/s/ Ethan H. Cline

Ethan H. Cline

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No: R-2022-3031211
	:	
Columbia Gas of Pennsylvania, Inc.	:	

VERIFICATION OF TYLER MERRITT

I, **Tyler Merritt**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that **I&E Statement No. 4, I&E Exhibit No. 4 and I&E Statement No. 4-SR** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in Pittsburgh, Pennsylvania, this 2nd day of August, 2022.

/s/Tyler Merritt
Tyler Merritt