



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

BUREAU OF
INVESTIGATION
&
ENFORCEMENT

October 30, 2020

Via Electronic Filing

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-2020-3018835
I&E Reply Brief

Dear Secretary Chiavetta:

Enclosed for electronic filing please find the Bureau of Investigation and Enforcement's (I&E) **Reply Brief** for the above-captioned proceeding.

Copies are being served on parties of record per the attached Certificate of Service. *Due to the temporary closing of the PUC's offices, I&E is only providing electronic service.* Should you have any questions, please do not hesitate to contact me.

Sincerely,

Erika L. McLain
Prosecutor
Bureau of Investigation and Enforcement
PA Attorney ID No. 320526
(717) 783-6170
ermclain@pa.gov

ELM/ac
Enclosures

cc: Hon. Katrina L. Dunderdale, Office of Administrative Law Judge (*via email only*)
Dan Pallas, Legal Secretary, Office of Administrative Law Judge (*via email only*)
Marc Hoffer, TUS (*via email only* – mhoffer@pa.gov)
Matthew Stewart, TUS (*via email only* – mattstewar@pa.gov)
Stephen Jakab, TUS (*via email only* – sjakab@pa.gov)
Per Certificate of Service

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2020-3018835
	:	
Columbia Gas of Pennsylvania, Inc.	:	

**REPLY BRIEF
OF THE
BUREAU OF INVESTIGATION AND ENFORCEMENT**

Erika L. McLain
Prosecutor
PA Attorney ID No. 320526

Bureau of Investigation & Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, Pennsylvania 17120

Dated: October 30, 2020

TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	History of the Proceeding	1
B.	Burden of Proof	1
II.	SUMMARY OF ARGUMENT	1
III.	OVERALL POSITION ON RATE INCREASE	2
IV.	RATE BASE	2
A.	Plant in Service FPFTY Plant Additions.....	2
1.	Reporting Requirements	2
B.	Cloud-Based Computing	3
C.	Depreciation Reserve.....	3
D.	ADIT.....	3
V.	REVENUE	3
VI.	EXPENSES	3
A.	Labor Expense	3
1.	Annualization Adjustment.....	3
2.	Employee Compliment.....	4
3.	Summary of Labor Expense Adjustments.....	6
B.	Other Employee Benefits	7
C.	Incentive Compensation and Stock Awards.....	7
D.	PUC, OCA, OSBA Fees.....	8
E.	Rate Case Expense	9
F.	Outside Services	10
G.	Other Adjustments.....	11
1.	Adjustments for Safety Issues	11
2.	Compensation Adjustment	11
H.	Depreciation Expense	11
VII.	TAXES	11
A.	Taxes Other Than Income Taxes.....	11
B.	Income Taxes.....	12

VIII. RATE OF RETURN	12
A. Introduction	12
B. Capital Structure Ratios.....	12
C. Debt Cost Rate.....	13
D. Return on Common Equity.....	13
1. Columbia’s Proposal	13
2. I&E’s Proposal	14
3. Increment for Management Effectiveness.....	17
IX. MISCELLANEOUS ISSUES	18
A. Low-Income Customer Issues	18
B. Pipeline Replacement Issues	18
1. DIMP	18
a) DIMP Risk Scores	18
b) Inclusion of All Historical Data in Risk Calculation	18
2. Pipeline Replacement	19
3. Pipeline Replacement Costs	21
4. Risk Reduction	21
a) Root Cause Analysis	21
b) Field-Assembled Risers.....	23
c) Maps and Records	24
X. RATE STRUCTURE	24
A. Introduction	24
B. Cost of Service	24
C. Revenue Allocation	26
1. Proposed Revenue Allocation and Alternatives.....	26
2. Flex Customers.....	26
3. Allocation of Universal Service Costs	27

D.	Rate Design	28
1.	Residential Rate Design	28
a)	Residential Customer Charge	28
b)	Weather Normalization Adjustment.....	29
c)	Revenue Normalization Adjustment	30
2.	Small C&I Customer Rate Design	32
3.	Large C&I Customer Rate Design	32
4.	Gas Procurement Charge Rider	32
E.	Bill Impacts	32
XI.	CONCLUSION	32

TABLE OF AUTHORITIES

Cases

<i>Pa. P.U.C. v. PPL Electric Utilities Corporation,</i> Docket No. R-2012-2290597 (Order Entered December 28, 2012).....	10
<i>Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division,</i> Docket No. R-2017-2640058 (Order Entered October 25, 2018)	4, 16

I. INTRODUCTION

A. History of the Proceeding

On October 16, 2020, the Bureau of Investigation and Enforcement (“I&E”) filed a Main Brief in this proceeding. The history of the proceeding was addressed in I&E’s Main Brief.¹ On October 16, 2020, Columbia Gas of Pennsylvania, Inc. (“Columbia” or “Company”), the Office of Consumer Advocate (“OCA”), the Office of Small Business Advocate (“OSBA”), Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (“CAUSE-PA”), Community Action Association of Pennsylvania (“CAAP”), Columbia Industrial Intervenors (“CII”), and the Pennsylvania State University (“PSU”) also filed Main Briefs. The issues addressed in this I&E Reply Brief are limited to matters raised in the other parties Main Briefs that relate to recommendations made in the I&E Main Brief.

B. Burden of Proof

I&E fully addressed the Burden of Proof in its Main Brief.²

II. SUMMARY OF ARGUMENT

Columbia maintains it should be awarded a rate increase of \$100.4 million.³ However, the Company’s Main Brief fails to demonstrate its rate increase proposal is just and reasonable. Specifically, Columbia’s claim continues to include unjustified Operating and Maintenance expenses; an excessive rate of return; and a

¹ I&E Main Brief, pp. 1-5.

² I&E Main Brief, pp. 5-6.

³ Columbia Main Brief, p. 15.

flawed customer rate structure. Therefore, I&E maintains Columbia's proposal should be adjusted so it only receives a rate increase of no more than \$75.9 million⁴ as explained below and fully in I&E's Main Brief.

III. OVERALL POSITION ON RATE INCREASE

As stated in I&E's Main Brief, I&E recommends an overall rate increase of no more than \$75.9 million. This recommended increase incorporates all of I&E's adjustments to rate base, expenses, taxes, and rate of return.

IV. RATE BASE

A. Plant in Service FPFTY Plant Additions

1. Reporting Requirements

Columbia did not address I&E's recommendation in Main Brief that the Company provide TUS and I&E with an update to Columbia Exhibit No. 108, Schedule 1 no later than April 1, 2021, under this docket number, which should include actual capital expenditures, plant additions, and retirements by month for the twelve months ending November 30, 2020. An additional update should be provided for actuals through December 31, 2021.⁵

As the Company agreed to provide this information in Rebuttal Testimony and did not address it in Main Brief, the Commission should adopt I&E's recommendation as it is in the public interest.

⁴ I&E Main Brief, p. 6.

⁵ I&E Statement No. 3, p. 3.

B. Cloud-Based Computing

I&E has not proposed a rate base adjustment for cloud-based computing and therefore has no reply.

C. Depreciation Reserve

I&E has not proposed a rate base adjustment for depreciation reserve and therefore has no reply.

D. ADIT

I&E has not proposed a rate base adjustment for ADIT and therefore has no reply.

V. REVENUE

I&E has not proposed any revenue adjustments and therefore has no reply.

VI. EXPENSES

A. Labor Expense

I&E continues to recommend a reduction of \$3,053,528 to the Company's updated claim of \$39,424,022 for Labor Expense. I&E's recommendation is based on two adjustments: (1) an annualization adjustment and (2) an employee vacancy adjustment.⁶

1. Annualization Adjustment

I&E recommends the disallowance of the Company's entire as-filed claim of \$546,602 for the pay increase annualization adjustment as included in the FPFTY labor expense claim. The Company disagrees with I&E's

⁶ I&E Main Brief, p. 16.

recommendation citing the 2018 UGI Electric base rate case where the Commission rejected the annualization of FPFTY payroll.⁷ The Company's argument fails to take into account that Commission's decision to annualize labor costs to end-of-year conditions in the 2018 UGI Electric base rate case does not ensure that Columbia has proven its claim for an annualization adjustment in the instant proceeding.⁸

I&E continues to recommend that the Commission reject Columbia's annualization adjustment claim as the proposed annualization adjustment claim would result in an unfair and unreasonable burden on ratepayers by establishing an expense recovery in its revenue requirement that is not reflective of actual FPFTY expenses which would not be within the public interest.

2. Employee Compliment

I&E recommends an employee vacancy adjustment of 53 employees resulting in a reduction of \$2,506,926 to the Company's claim.⁹ I&E's adjustment is reasonable because based on the Company's data, a certain level of ongoing vacancies due to normal retirements, resignations, transfers, layoffs, etc., exist on a day-to-day operating basis. It is, therefore, unreasonable to assume that the Company will maintain 100% full staffing in the FPFTY. Further, there will

⁷ *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division*, Docket No. R-2017-2640058, p. 65 (Order Entered October 25, 2018).

⁸ I&E Main Brief, p. 17.

⁹ I&E Main Brief, p. 18.

always be search and placement time involved in filling employee vacancies as per the Company's vacancy-filling or hiring procedures.¹⁰

The Company argues that I&E's adjustment fails to understand Columbia's labor budgeting process and should be rejected.¹¹ Columbia relies upon its budgeted labor expense from 2009-2019 in which it does not show an underspend close to I&E's recommended reduction of \$2,506,926.¹² Next, the Company states that if the Company's budget is to be revised to adjust the full time employee compliment for vacancies then the budget amount must be increased to add back the HTY level of overtime.¹³

It is important to note that I&E's recommendation was not based upon historic underspends from 2009-2019 and instead was based upon the average annual vacancy rate for each fiscal year for 2017, 2018, 2019, and 2020. The average annual vacancy rate for each of those three years is calculated at 6.44% which was applied to the FPFTY total budgeted positions of 822 yielding an average of 53 employees.

Next, Columbia's argument that a revision to the full time employee compliment for vacancies should result in an increase to the budget for HTY level of overtime is inappropriately raised for the first time in the Company's Main Brief. However, by way of response I&E would note historic vacancy rates have less to do with a company's budgeting process, a part of which is overtime pay,

¹⁰ I&E Main Brief, p. 19.

¹¹ Columbia Main Brief, p. 41.

¹² Columbia Main Brief, p. 41.

¹³ Columbia Main Brief, p. 42.

than with the general employment and economic climate. As pointed out above, there will always be a certain level of ongoing vacancies and that level will fluctuate as people leave the Company and others are hired to work for the Company. I&E's adjustment was not related to what level of overtime the Company should expect; a claim in which the Company believe it was entitled, should have been raised earlier in this proceeding than its Main Brief. I&E's adjustment was to reflect the proper level of vacancies the Commission can expect Columbia to experience. I&E's calculation is based upon sound, historic data and should be accepted by the Commission as accurately reflecting the level of vacancy for this Company.

For the reasons put forth in Main Brief and above, I&E recommends an employee vacancy adjustment of 53 employees resulting in a reduction of \$2,506,926 to the Company's claim.

3. Summary of Labor Expense Adjustments

I&E continues to recommend an allowance for labor expense of \$36,420,494, or a reduction of \$3,053,528 to the Company's updated claim. I&E's total adjustment is composed of (1) disallowance of the annualization adjustment of \$546,602 and (2) a vacancy adjustment of \$2,506,926.

B. Other Employee Benefits

I&E recommends a reduction of \$500,968 to Columbia's claim of \$7,779,000 for Other Employee Benefits.¹⁴ The Company states I&E's recommendation should be rejected because it assumes a direct correlation of Other Employee Benefits to payroll while Columbia believes Other Employee Benefits expense can vary from budgets for reasons other than headcount.¹⁵

As stated in Main Brief, I&E disagrees with Columbia's position as I&E's vacancy adjustment applies equally to employee benefits expense and a corresponding adjustment is necessary to reflect an accurate expense amount for ratemaking purposes. Further, I&E recognizes that two of the last three years exceeded the budget as 2017 was 124 over budget and 2019 was 80 over budget; however, 2018 was 429 under budget which far outweighs the other two years combined.¹⁶ Therefore, I&E continues to recommend a reduction of \$500,968 to the Company's claim for Other Employee Benefits expense. I&E's recommendation is reasonable and should be adopted.

C. Incentive Compensation and Stock Awards

I&E recommends a reduction of \$784,686 to Columbia's claim of \$2,267,000 for Incentive Compensation Expense based upon the most recent incentive compensation payout.¹⁷ The Company claims that I&E's recommendation based on a single year's ratio of incentive compensation payout

¹⁴ I&E Main Brief, p. 21.

¹⁵ Columbia Main Brief, p. 42.

¹⁶ I&E Main Brief, pp. 21-22.

¹⁷ I&E Main Brief, p. 22.

to payroll fails to take into account that the percentage of payout changes based upon the level of achievement of goals.¹⁸ Columbia states that the more appropriate approach would be to consider an average of payout ratios over a period of years and that by using the Company's most recent payout it essentially utilizes a HTY over the Company's FPFTY.¹⁹

I&E discussed the downward trend of incentive compensation in Main Brief. More specifically, incentive compensation as a percentage of labor expense has decreased by more than half, going from 8.90% in the month ending in November 30, 2017 to 4.07% in the month ending in November 30, 2019.²⁰ I&E believes that the drastic decline from years 2017 through 2019 show that it is reasonable to rely on the most recent year in determining an appropriate incentive compensation expense recommendation. It is also worth noting that I&E's recommended allowance is higher than the Company's actual 2019 payout.²¹ Therefore, I&E continues to recommend a reduction of \$784,686 to Columbia's claim of \$2,267,000 for Incentive Compensation Expense.

D. PUC, OCA, OSBA Fees

As explained in testimony and the I&E Main Brief, I&E recommends that the Company's claim for PUC, OCA, OSBA fees be denied. Columbia's claim for this expense was based upon the average annual assessments incurred by Columbia for the period of 2015-2019. I&E Witness Zalesky explains that it is

¹⁸ Columbia Main Brief, p. 44.

¹⁹ Columbia Main Brief, p. 44.

²⁰ I&E Main Brief, p. 25.

²¹ I&E Main Brief, p. 25.

more prudent to rely upon the most up-to-date data for PUC assessments rather than a historic average for this expense.²² By relying upon the most-up-to date PUC assessment it provides more certainty than averaging a number of years because we can look to the most recent invoice from the Commission to determine the exact amount of the PUC, OCA, OSBA fees for the time frame closest to the Company's base rate case filing.

I&E believes that using the most recent invoice is the best estimate of the fees to include in the Company's expenses. Therefore, I&E continues to recommend the most up-to-date data be used to determine this expense.

E. Rate Case Expense

I&E recommends a 20-month normalization period for rate case expense resulting in an annual allowance of \$636,000 ($(\$1,060,000 \div 20 \text{ months}) \times 12 \text{ months}$), which is a reduction of \$424,000 ($\$1,060,000 - \$636,000$) to the Company's claim.²³ Columbia points to its need to file annual base rate cases for the foreseeable future due to increased main replacement and its DSIC cap to support its claim for a 12-month normalization of rate case expense.²⁴ In Main Brief, I&E recognized Columbia's past annual filing frequency however since 2016, the Company has not been filing base rate cases annually.²⁵

Next, the Company cites to the 2012 PPL Electric Utilities Corporation ("PPL") base rate case where the Commission deviated from historic filing

²² I&E Main Brief, pp. 25-26.

²³ I&E Main Brief, p. 29.

²⁴ Columbia Main Brief, p. 48.

²⁵ I&E Main Brief, pp. 28-29.

frequency when determining the normalization of rate case expense. As stated in I&E's Main Brief, the Commission granted PPL permission to normalize its rate case expense over a 24-month period based on the expected timing of future base rate case filings.²⁶ That particular base rate case was filed on March 30, 2012; however, PPL did not file its next base rate case until March 31, 2015, which was 36 months after the 2012 rate case filing. The 12-month discrepancy between PPL's projection in 2012 when it would next file and its actual filing date of the subsequent rate case shows that future projections are unreliable when determining an appropriate normalization period for the rate case expense. I&E's recommended normalization period in 2012 PPL proceeding was a 32-month interval based on the Company's historic filing frequency.²⁷ The I&E recommendation in that instance produced a much more accurate result than the Company's stated future intention to file a rate case.²⁸

For the reasons articulated in I&E's Main Brief and above, I&E's recommendation for a 20-month normalization of rate case expense is based on the Commission accepted methodology of historic filing frequency, is reasonable and should be accepted.

F. Outside Services

I&E has not proposed an adjustment to the Company's outside services expense and therefore has no reply.

²⁶ *Pa. P.U.C. v. PPL Electric Utilities Corporation*, Docket No. R-2012-2290597, pp. 47-48 (Order Entered December 28, 2012).

²⁷ I&E Statement No. 2, pp. 13-14 at Docket No. R-2012-2290597.

²⁸ I&E Main Brief, p. 28, fn. 52.

G. Other Adjustments

1. Adjustments for Safety Issues

I&E has not proposed an adjustment for safety initiatives and therefore has no reply.

2. Compensation Adjustment

I&E has not proposed compensation adjustments and therefore has no reply.

H. Depreciation Expense

I&E has not proposed an adjustment to depreciation expense and therefore has no reply.

VII. TAXES

A. Taxes Other Than Income Taxes

I&E continues to recommend a reduction of \$275,672 to Columbia's claim of \$3,001,823 for FICA tax expense. As explained in Main Brief, I&E's recommendation corresponds to recommended adjustments to labor expense and incentive compensation. The FICA tax expense reduction was calculated by multiplying the total reduction of labor expense and incentive compensation by the Company's historic test year ("HTY") FICA experienced rate of 7.1823%.²⁹

Columbia did not directly address I&E's recommended adjustment to FICA tax expense in its Main Brief but did address I&E's labor expense and incentive compensation recommendations. I&E's recommended reduction of \$275,672 to Columbia's claim for FICA tax expense is reasonable and should be adopted.

²⁹ I&E Statement No. 1, pp. 18-19.

B. Income Taxes

I&E did not propose any adjustments to income taxes and therefore has no reply.

VIII. RATE OF RETURN

A. Introduction

As stated in Main Brief, I&E submits its recommended rate of return for Columbia as follows:

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	42.22 %	4.73 %	2.00 %
Short-Term Debt	3.59 %	2.06 %	0.07 %
Common Equity	<u>54.19 %</u>	9.86 %	<u>5.34 %</u>
Total	<u>100.00 %</u>		<u>7.41 %³⁰</u>

I&E recommendation utilizes Columbia's claimed hypothetical capital structure and Columbia's claimed cost rates of long-term and short-term debt. However, I&E rejects Columbia's method for calculating return on common equity. Instead, I&E calculates its recommended return on equity pursuant to the Discounted Cash Flow methodology frequently used by the Commission while using the Capital Asset Pricing Model as an alternate means to verify the reasonableness of its return.³¹

B. Capital Structure Ratios

I&E recommends using Columbia's claimed hypothetical capital structure.³²

³⁰ I&E Main Brief, p. 33.

³¹ I&E Main Brief, p. 33.

³² I&E Main Brief, p. 33.

C. Debt Cost Rate

I&E recommends using Columbia's claimed cost rate of long-term debt of 4.73% and its claimed cost rate of short-term debt of 2.06%.³³

D. Return on Common Equity

1. Columbia's Proposal

I&E maintains that Columbia witness Moul significantly overstates a just and reasonable return for the Company, reflecting a 10.95% return on equity. First, Columbia witness Moul uses a flawed proxy group. Second, Columbia witness Moul improperly gives other methods equal weighting to his DCF analysis. The Commission has clearly stated the DCF method should be the primary method to determine cost of common equity. Additionally, as part of his flawed use of various methods, Columbia witness Moul inappropriately (1) assigns weights to the results of CAPM, RP, and CE analyses; (2) assigns Columbia risk; (3) applies a growth rate and leverage adjustment to the DCF; (4) includes a size adjustment; (5) relies on the 30-year Treasury Bond for his risk-free rate; and (6) uses a double-adjusted beta in his CAPM analysis. Finally, Mr. Moul unjustly claims that Company's return on equity should be adjusted upwards by 20 basis points for "strong management performance." For these reasons and those stated in I&E's Main Brief, the Company's return on equity should be rejected.

³³ I&E Main Brief, pp. 34-35.

2. I&E's Proposal

I&E continues to recommend an 9.86% return on common equity, based upon a similarly-situated proxy group of companies for purposes of determining capital structure, best balances the interests of the ratepayers and the Company.

Columbia disagrees with I&E's recommended return on common equity. The Company first disagrees with I&E witness Keller's exclusion of a single growth rate projection for Northwest Natural Gas in his proxy group.³⁴ However, as stated in I&E's Main Brief, *Value Line's* projected earnings growth estimate for Northwest Natural Gas is clearly an outlier. The estimate of 26.50% is more than 3.5 times higher and greater than three standard deviations over the originally calculated 7.64% overall average. Furthermore, the estimate is almost four times higher than the average of the remaining estimates. Including this anomaly in I&E or the Company's analysis would have an unreasonable and unwarranted impact on the DCF analysis and would be harmful to ratepayers as it creates an unjustified increase in return on equity and consequently puts upward pressure on rates, which is not in the public interest.³⁵

Columbia disagrees with I&E's recommended disallowance of Mr. Moul's leverage adjustment.³⁶ In support of its leverage adjustment, Columbia cites to four cases in which the Commission accepted Mr. Moul's proposed adjustment: the 2002 base rate case of PA American; a 2004 Aqua Pennsylvania base rate

³⁴ Columbia Main Brief, p. 86.

³⁵ I&E Main Brief, p. 49.

³⁶ Columbia Main Brief, p. 87.

case; PPL Electric's 2004 base rate case; and PPL Gas' 2007 base rate case.³⁷

Columbia acknowledges the 2008 Aqua Pennsylvania base rate case, in which the Commission declined the Company's proposed leverage adjustment, and attempts to distinguish the Commission's rejection of the leverage adjustment in *City of Lancaster – 2011*, claiming that case is "clearly distinguishable,"³⁸ but citing no differences other than the City was municipal, and not investor owned.

I&E does not dispute that the Commission has accepted the leverage adjustment in previous cases over the history of regulation and that the ability to do so is squarely within the Commission's discretion. I&E strongly disputes, however, that Mr. Moul's leverage adjustment is supported outside the context of those limited cases. Even if it did, I&E asserts that on the facts of this record, any upward adjustment from the objective results of the I&E recommendation is not warranted. I&E respectfully submits that Columbia's proposed leverage adjustment has no place in the cost of equity determined on this record.

The Company further raises three concerns with I&E's CAPM analysis check on I&E's DCF results. First, the Company argues that I&E's reliance upon the yield of 10-Year treasury notes instead of long-term bonds produces a systematic understatement of the risk free rate.³⁹ I&E addressed the Company's argument in Main Brief and explained I&E witness Keller appropriately chose the 10-Year Treasury bond because long-term bonds are susceptible to substantial

³⁷ Columbia Main Brief, p. 77, incorrectly citing the date (2012 instead of 2002) and docket number (R-0001639 instead of R-00016339) for the 2002 PA American base rate case.

³⁸ Columbia Main Brief, p. 79.

³⁹ Columbia Main Brief, p. 87.

maturity risk associated with the market risk and also bear the risk of unexpected inflation. Furthermore, in the recent UGI Electric base rate case, the Commission agreed with I&E and recognized the 10-year Treasury Note as the superior measure of the risk-free rate of return.⁴⁰ Therefore, Mr. Keller's use of the yield on the 10-year Treasury bond is appropriate and based upon Commission precedent, therefore should be accepted.

Next, Columbia submits that I&E's CAPM calculation is understated by failing to use leverage adjusted betas.⁴¹ Again, I&E points to the UGI Electric base rate case where the Commission found no basis to add leverage adjusted betas to the CAPM model.⁴² Furthermore, the Company lends no support for its use of leverage adjusted betas and 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.

Finally, the Company claims I&E's CAPM calculation is understated by failing to reflect a size adjustment. However, as explained in I&E's Main Brief, I&E presented technical literature demonstrating a size effect for utilities does not exist,⁴³ and Columbia did not provide sufficient evidence to the contrary. As explained in I&E's Main Brief, the study Columbia presented to support its claim to a size adjustment did not relate to the size of a company and was not specific to

⁴⁰ *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division*, Docket No. R-2017-2640058, p. 99 (Order Entered October 25, 2018).

⁴¹ Columbia Main Brief, p. 88.

⁴² *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division*, Docket No. R-2017-2640058, p. 100 (Order Entered October 25, 2018).

⁴³ I&E Main Brief, p. 58.

the utility industry; therefore, such an adjustment is inappropriate.⁴⁴ Therefore, for the reasons stated herein and in I&E's Main Brief, the Commission should find Columbia has not justified its claim for a size adjustment to its return on equity.

3. Increment for Management Effectiveness

Columbia maintains its management performance merits a 20 basis point increase to return on equity.⁴⁵ As explained in I&E's Main Brief, Columbia should not be awarded additional basis points simply for performing what is required to provide adequate, efficient, safe, and reasonable service.⁴⁶ I&E demonstrated that by awarding the Company 20 basis points for management effectiveness the total impact to ratepayers would be \$2,602,667.⁴⁷ This adjustment is inappropriate and unsupported, rejecting the Company's claim for management effectiveness is in the public interest. Ensuring that cost saving measures flow to ratepayers is especially important now as many have recently experienced reduced household income as a result of job loss or reduction in hours due to the global pandemic where the Pennsylvania unemployment rate was 13.7% as of the end of July 2020.⁴⁸ Therefore, I&E continues to recommend a 20 basis point performance factor increase be disallowed.

⁴⁴ I&E Main Brief, p. 58.

⁴⁵ Columbia Main Brief, pp. 92-96.

⁴⁶ I&E Main Brief, p. 66-70.

⁴⁷ I&E Main Brief, p. 66.

⁴⁸ I&E Main Brief, p. 69.

IX. MISCELLANEOUS ISSUES

A. Low-Income Customer Issues

I&E has not addressed low-income customer issues and therefore has no reply.

B. Pipeline Replacement Issues

1. DIMP

a) DIMP Risk Scores

In Main Brief, I&E recommended that Columbia amend its DIMP to explain its method of using two inputs to generate one DIMP risk score and present proof of the update to I&E Pipeline Safety at the conclusion of this proceeding.⁴⁹ Columbia, as explained in its Main Brief, does not oppose clarifying its DIMP to reflect its process of using quantitative data and SME validation to develop DIMP risk scores.⁵⁰ Therefore, the Commission should adopt I&E's recommendation as the Company is amenable to providing an update to its DIMP as recommended by I&E.

b) Inclusion of All Historical Data in Risk Calculation

I&E, in Main Brief, recommended that Columbia update Section 7.1.2.2 of its DIMP to reflect the inclusion of all historical data including leakage history, third party damages, external corrosion, over pressure, cast iron, cross bores, and field assembled risers in the evaluation of its risks and present the revision to I&E

⁴⁹ I&E Main Brief, p. 71.

⁵⁰ Columbia Main Brief, p. 116.

Pipeline Safety at the conclusion of this proceeding.⁵¹

In surrebuttal testimony, I&E stated its understanding of the Company's inability to use leakage data prior to 2016.⁵² I&E further acknowledged Columbia's willingness to revise its DIMP to expand the use of incident data and place a higher consequence of failure score on incidents in the last five years however, as stated in Main Brief this revision would only be acceptable only if the Company intends to include all available historical data on leakage history, third party damages, external corrosion, over pressure, cast iron, cross bores, and field assembled risers.⁵³

2. Pipeline Replacement

For the reasons stated in Main Brief, I&E continues to recommend that Columbia increase its pipe replacement so that the 2029 priority pipe replacement goal as stated in the Company's most recent LTIP will be met.⁵⁴

Columbia argues that I&E's recommendation is better addressed in an LTIP proceeding or in the mid-plan LTIP review this year.⁵⁵ First, the Company fails to consider I&E's charge to represent the public interest in base rate proceedings. It is important that Columbia maintain its pipeline replacement efforts and meet the goals outlined in its LTIP to reduce overall system risk and increase safety to its customers, which is certainly in the public interest. Second, I&E disagrees with the Company and believes that safety concerns may be raised

⁵¹ I&E Main Brief, pp. 72-73.

⁵² I&E Statement No. 5-SR, p. 6.

⁵³ I&E Main Brief, p. 72.

⁵⁴ I&E Main Brief, p. 73.

⁵⁵ Columbia Main Brief, p. 118.

as part of a general base rate case because there is a correlation between an increase in revenue and the Company's ability to replace more infrastructure.

Throughout direct and surrebuttal testimony, I&E raised concerns about the Company's ability to meet its pipeline replacement goals contained in its current LTIP approved by the Commission. After careful review of Columbia's replacement during its current LTIP, I&E believed it necessary to point out that the Company will need to increase replacement to meet its 2029 replacement goal. To illustrate I&E's concerns, it was shown that in order to meet its 2029 projected goal, Columbia would need to replace about 118 miles per year.⁵⁶ This number is significant because over the past 13 years, Columbia has failed to consistently replace over 100 miles of pipe per year.⁵⁷

Finally, the Company states that it already has plans to further increase its spending on its pipeline replacement. Columbia explains that it plans on increasing its pipeline replacement budget by nearly \$100 million from its 2020 budget to its 2024 budget.⁵⁸ I&E submits that with the projected budget increase it should be easier for Columbia to comply with I&E's recommendation to increase pipeline replacement and maintain efforts to meet its LTIP goals. Ultimately, it is within the public interest for Columbia to put forth a strong effort in meeting replacement goals approved by the Commission to increase the safety of its system. Therefore, for the reasons stated in Main Brief as well as above, I&E

⁵⁶ I&E Main Brief, p. 75.

⁵⁷ I&E Main Brief, p. 75.

⁵⁸ Columbia Main Brief, p. 119.

continues to recommend that Columbia increase its pipe replacement so that the 2029 priority pipe replacement goal in the Company's current LTIIP will be met.

3. Pipeline Replacement Costs

In Main Brief, I&E recommended that until the conclusion of the Company's next base rate proceeding, Columbia and I&E's Pipeline Safety Division meet annually for a status update of efforts relating to pipeline replacement costs.⁵⁹ Columbia does not oppose this recommendation.⁶⁰ As this recommendation is in the public interest and is unopposed, I&E's recommendation should be adopted.

4. Risk Reduction

a) Root Cause Analysis

I&E continues to recommend that the Company perform a root cause analysis and submit the results to I&E Pipeline Safety no later than September 30, 2021. The Company disagrees that a formal root cause analysis is necessary for three reasons.⁶¹ First, Columbia believes that the number of leaks found in a year are affected by more than just the amount of at-risk pipe in the system. The Company explains an example in which new leaks could form on an already aged pipe set to be replaced. However, the Company cannot be absolutely certain this is the case unless they perform a root cause analysis which would pinpoint the exact cause of leaks.

⁵⁹ I&E Main Brief, p. 79.

⁶⁰ Columbia Main Brief, pp. 122-123.

⁶¹ Columbia Main Brief, p. 123.

Next, Columbia argues that the number of leaks found is impacted by the amount of pipeline surveyed in a year, which varies.⁶² I&E understands the increase in its pipeline surveying, however, along with the increase in pipeline surveyed there was also an increase in leaks found. As explained in Main Brief, in general, utilities conduct studies or analyses to determine which segments of their systems they should target first during a replacement project. Based on the result of those studies, riskiest pipes or segments are replaced first.⁶³ With the increase in surveyed pipeline and leaks, it is only reasonable that the Company perform a root cause analysis to determine if the newly surveyed pipeline is a priority to replace.

Lastly, the Company claims that I&E's calculation of leaks per mile is flawed because it was not limited to priority pipe leaks.⁶⁴ Columbia raised this issue in rebuttal testimony to which I&E responded. I&E witness Apetoh explained that most leaks occur on "bad pipes," which Columbia refers to as priority pipes and taking that into account, priority pipes will be the source of most of the leaks in the raw data provided by Columbia in discovery. Therefore, the calculation of leaks per mile will fall within a reasonable range of confidence.⁶⁵

Columbia stated that it will continue to analyze data to assess whether its increase in leaks found over the past three years are a problem or short term

⁶² Columbia Main Brief, p. 124.

⁶³ I&E Main Brief, p. 82.

⁶⁴ Columbia Main Brief, p. 124.

⁶⁵ I&E Main Brief, p. 82.

phenomenon.⁶⁶ The Company claims that this analysis is currently underway through its DIMP and current work planning processes.⁶⁷ I&E disagrees with the Company's suggested method of moving forward with leaks. As explained, a root cause analysis will provide a specific cause as to the increase in leaks in Columbia's system using the six key attributes and is generally accepted in the industry. The processes the Company explained fail to reach the level of detail a root cause analysis would provide. Therefore, I&E continues to recommend that the Company perform a root cause analysis and submit the results to I&E Pipeline Safety no later than September 30, 2021.

b) Field-Assembled Risers

In regard to field-assembled risers, I&E put forth two recommendations: (1) that the Company complete updating its records, which would allow Columbia to identify the locations of all field-assembled risers including those on customer-owned service lines and (2) complete the inspection of all field-assembled risers in the Company's system as soon as possible and develop a plan to replace all of the field-assembled risers in its system, including those on customer-owned service lines.⁶⁸

The Company stated that it agreed with I&E's recommendations and has already begun to implement them.⁶⁹

⁶⁶ Columbia Main Brief, p. 124.

⁶⁷ Columbia Main Brief, p. 124.

⁶⁸ I&E Main Brief, pp. 83-84.

⁶⁹ Columbia Main Brief, p. 124.

c) Maps and Records

As stated in Main Brief, I&E accepts the Company's commitment to keep I&E apprised of its progress in updating its maps and records.⁷⁰

X. RATE STRUCTURE

A. Introduction

As addressed in Main Brief and below, I&E continues to recommend the Commission adopt its three positions on rate structure, 1) to use the Company's Peak and Average Cost of Service Study, 2) deny the removal of the 3% deadband on WNA and 3) reject the Company's RNA proposal.

B. Cost of Service

I&E continues to recommend that the peak and average ACOS study be utilized and the customer cost analysis including the cost of mains be rejected.

Columbia criticizes I&E's recommendation rejecting the customer component to mains claiming it is contrary to the opinion of various recognized authorities.⁷¹ However, although the Company cites to two articles to support its position, Columbia fails to point to any Commission Order where the Commission allowed the cost of mains to be included in the customer cost analysis.

CII and PSU also disagree with I&E's recommendation to use the peak and average ACOS. Both CII and PSU submit that the 1994 NFG case is inapplicable to the instant case.⁷² PSU submits that, "the Commission chose a peak and

⁷⁰ I&E Main Brief, p. 84.

⁷¹ Columbia Main Brief, p. 132.

⁷² CII Main Brief, p. 12; PSU Main Brief, p. 12.

average study absent an alternative to the cost of service studies presented.”⁷³

PSU fails to recognize that the Commission was not obligated to accept the peak an average study in the 1994 NFG case due to the lack of other studies presented, and it was well within the discretion of the Commission to deny all studies posed, which it did not. Furthermore, PSU erroneously contends that it is “particularly unusual” for I&E to recommend a peak and average study when its charge is to “do what is best for all customers” and this recommendation is biased toward residential customers.⁷⁴ PSU’s assessment of I&E’s charge is incorrect. I&E’s charge is to protect the public interest which includes balancing the interests of ratepayers, the regulated utility and the regulated community as a whole to ensure that the rates charged by utilities are just, reasonable, non-discriminatory and are at a level that affords the utility the opportunity to provided safe and reliable service. I&E’s charge is not to “do what is best for all customers” as PSU has incorrectly stated. Furthermore, I&E witness Cline examined the Company’s recommended alternative methods for cost allocation and determined that the Company’s peak and average ACOS best represented the public interest.

For the reasons in I&E’s Main Brief as well as above, I&E continues to recommend the Commission use the Peak and Average ACOS to allocate costs in the current proceeding and reject the inclusion of the cost of distribution mains as a customer cost.

⁷³ PSU Main Brief, p. 13.

⁷⁴ PSU Main Brief, p. 12.

C. Revenue Allocation

1. Proposed Revenue Allocation and Alternatives

I&E and Columbia agree that if the Commission approves a revenue requirement less than requested, rates should be proportionally scaled back based on the cost of service study.⁷⁵ Accordingly, I&E requests the ALJ recommend and the Commission order a proportional scale back of rates if less than the full increase is granted.

2. Flex Customers

I&E continues to recommend that Columbia provide an update to the competitive alternative analysis for any customer that has not had their alternative fuel source verified for a period of 10 years or more at the point at which Columbia Gas files its base rate case.⁷⁶ Although Columbia has agreed to provide this analysis for six flex rate customers whose alternative supply had not been verified since 2008 and one since 2010 as part of the 2018 base rate case settlement, the Company does not believe the analysis is necessary going forward.⁷⁷

Columbia believes that it should not be required to invest the time and expense required to undertake such an analysis that it believes serves no useful purpose.⁷⁸ In Main Brief, I&E described two situations in which a competitive

⁷⁵ I&E Main Brief, p. 95; Columbia Main Brief, p. 138.

⁷⁶ I&E Main Brief, p. 96.

⁷⁷ Columbia Main Brief, p. 146.

⁷⁸ Columbia Main Brief, p. 147.

alternative analysis would benefit the Company and its customers.⁷⁹ I&E disagrees with the Company because customers under flex rates are not paying the full cost of service rate that they would otherwise be charged absent a verifiable alternative, which creates a revenue shortfall that must be subsidized by the other rate classes. Flex-rate customers, if not kept in check with a competitive alternative analysis, can be harmful to both the Company and its customers since the other customers make up the lost revenue that results when flex-rate customers pay less than tariff rates. This analysis is needed to ensure that flex-rate customers make the maximum contribution to fixed costs.⁸⁰

Therefore, I&E continues to recommend that Columbia provide an update to the competitive alternative analysis for any customer that has not had their alternative fuel source verified for a period of 10 years or more at the point at which Columbia Gas files its base rate case.

3. Allocation of Universal Service Costs

I&E did not address allocation of universal service costs and therefore has no reply.

⁷⁹ I&E Main Brief, pp. 96-97.

⁸⁰ I&E Main Brief, pp. 98-99.

D. Rate Design

1. Residential Rate Design

a) Residential Customer Charge

In Main Brief, I&E accepted Columbia’s customer charges for RS/RDS/RCC and LDS classes and proposed reductions to the SGSS1, SGSS2 and SDS /LGSS classes reflected in the table below:

I&E Corrected Customer Charge Table⁸¹				
Rate Schedule (Therms, annually)	Customer Cost Analysis	Company Proposed Rate	Change	I&E Proposed Rate
RS, RDS, RCC				
All Usage	\$23.05	\$23.00	\$0.00	\$23.00
SGSS1, SCD1, SGDS1				
<u><6,440</u>	\$25.87	\$30.00	(\$4.00)	\$26.00
SGSS2, SCD2, SGDS2				
>6,440 to ≤64,440	\$43.99	\$60.00	(\$15.00)	\$45.00
SDS/LGSS				
>64,400 to ≤110,000	\$191.02	\$290.00	(\$98.98)	\$191.02
>110,000 to <u><540,000</u>	\$919.89	\$940.00	(\$20.00)	\$920.00

I&E acknowledges that a 40% increase in customer charge is significant; however, I&E’s recommendation does not violate the principle of gradualism because I&E recommends that customer charges should be included in any scale

⁸¹ I&E Main Brief, p. 101.

back of rates.⁸² Therefore, I&E submits its position is reasonable and therefore should be adopted.

b) Weather Normalization Adjustment

I&E continues to recommend that the Company's proposal to remove the 3% deadband be denied as WNA is a departure from traditional ratemaking in that it allows the Company to actually adjust a customer's base rate bill, which was calculated based on Commission approved rates, outside the scope of a base rate case.

In Main Brief, Columbia contends that removal of the deadband of WNA would allow the Company to bill customers for the approved level of revenue by eliminating the effects of weather on a real time basis. The Company explains if the deadband is eliminated and the weather is 2.5% colder than normal, the Company would be able to lower customers' bills to reflect the abnormal weather and that by maintaining the 3% deadband currently in place, the revenues would be retained by Columbia.⁸³ Columbia goes on to state that if the weather was 2.5% colder during peak heating months of January through March an average residential customer would pay over \$8 more in bills than they would if no deadband were in place.⁸⁴ However, Columbia only provides one example to illustrate when removal of the deadband benefits the customers and disregards when removal of the deadband would benefit the Company. For example, if the

⁸² I&E Main Brief, p. 102.

⁸³ Columbia Main Brief, p. 155.

⁸⁴ Columbia Main Brief, p. 155.

weather were 2.5% warmer during those same months, the average customer would be billed \$8 more to make up for the lost usage if no deadband were in place. By maintaining the 3% deadband, it will allow the Company some flexibility while still safeguarding the customers from major variances in weather.

I&E submits that the WNA with the 3% deadband is a reasonable provision because it serves to protect both the Company and customers from the effects of abnormal weather, which cannot be predicted or controlled. Therefore, I&E recommends that the 3% deadband be made a permanent part of the Company's WNA.

c) Revenue Normalization Adjustment

I&E continues to recommend that the Commission deny Columbia's proposal to use RNA. In Main Brief, I&E argues that the Company proposed RNA is not within the public interest as it does not provide a definite benefit to customers and has potential to harm them.

Columbia criticizes I&E's argument that utilizing RNA would not guarantee that the Company would file less base rate cases, which would benefit customers.⁸⁵ The Company claims that the stability provided by RNA is beneficial for both the Company and its customers because the Company would credit or collect any distribution revenues over or under the benchmark revenue per

⁸⁵ Columbia Main Brief, p. 160.

customer that is established as part of a base rate proceeding. Next, the Company asserts that RNA is not contrary to conservation efforts.⁸⁶

It is I&E's position that customers subjected to RNA would have to use more gas to trigger a refund. As explained in Main Brief, customers who undertake conservation efforts will see their savings eroded and their investment payback time increase as the Company is permitted to increase rates in response to usage declines. Further, customers who lack the financial means to undertake conservation efforts will be penalized by the RNA, which increases rates to address usage reductions. While the adjustment applies only to non-CAP residential customers, there are potentially many customers whose ability to pay may be compromised as their rates increase to address conservation efforts undertaken by more affluent customers.⁸⁷

Furthermore, if the RNA is simply doing what the normal rate case process does without the benefit of less frequent base rate cases, then there is no need for the RNA as the Company's rates will continue to be adjusted every year or two as has been the Company's pattern of rate case filing.⁸⁸ Columbia fails to provide a tangible benefit to customers in utilizing its proposed RNA.

Columbia's RNA proposal is not in the public interest as the Company's RNA proposal shows little to no benefit to Columbia's customers and may even

⁸⁶ Columbia Main Brief, p. 160.

⁸⁷ I&E Main Brief, p. 108.

⁸⁸ I&E Main Brief, p. 110.

have potential to harm them. For those reasons and the reasons discussed above, I&E continues to recommend that the Company's proposal to use RNA be denied.

2. Small C&I Customer Rate Design

I&E did not address small C&I customer rate design and therefore has no reply.

3. Large C&I Customer Rate Design

I&E did not address large C&I customer rate design and therefore has no reply.

4. Gas Procurement Charge Rider

I&E did not address the gas procurement charge rider and therefore has no reply.

E. Bill Impacts

I&E submitted its residential bill impact based on I&E recommendations in Main Brief.⁸⁹

XI. CONCLUSION

For the reasons explained herein and in I&E's Main Brief, Columbia has failed to bear its burden of proof with respect to each and every element of its proposed rate increase. The Company's proposal must be amended to reflect the necessary and appropriate adjustments proposed by the Bureau of Investigation & Enforcement fixed utility financial analyst and engineering witnesses. Therefore, the Bureau of Investigation & Enforcement respectfully requests the

⁸⁹ I&E Main Brief, p. 112.

Administrative Law Judge and the Commission to adopt its recommendations in this proceeding, which include adjustments and modifications as supported herein and in I&E's Main Brief, and as reflected in I&E's tables attached to I&E's Main Brief.

Respectfully submitted,

A handwritten signature in cursive script that reads "Erika L. McLain".

Erika L. McLain
Prosecutor
PA Attorney ID No. 320526

Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Dated: October 30, 2020

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission :
 :
v. : Docket No.: R-2020-3018835
 :
Columbia Gas of Pennsylvania, Inc. :

CERTIFICATE OF SERVICE

I hereby certify that I am serving the foregoing **Reply Brief** dated October 30, 2020, in the manner and upon the persons listed below:

Served via Electronic Mail Only

Michael W. Hassell, Esq.
Lindsay A. Berkstresser, Esq.
Post & Schell, PC
17 North Second Street
12th Floor
Harrisburg, PA 17101
mhassell@postschell.com
lberkstresser@postschell.com
Counsel for
Columbia Gas of Pennsylvania, Inc.

Christy M. Appleby, Esq.
Laura J. Antinucci, Esq.
Barrett C. Sheridan, Esq.
Darryl A. Lawrence, Esq.
Office of Consumer Advocate
Forum Place
555 Walnut Street, 5th Floor
Harrisburg, PA 17101
OCACGPA2020@paoca.org

Steven C. Gray, Esq.
Office of Small Business Advocate
Forum Place
555 Walnut Street, 1st Floor
Harrisburg, PA 17101
sgray@pa.gov

Amy Hirakis, Esq.
Columbia Gas of PA, Inc.
800 North Third Street
Suite 204
Harrisburg, PA 17102
ahirakis@nisource.com
Counsel for
Columbia Gas of Pennsylvania, Inc.

Meagan Bielanin Moore, Esq.
Columbia Gas of PA, Inc.
121 Champion Way, Suite 100
Canonsburg, PA 15317
mbmoore@nisource.com
Counsel for
Columbia Gas of Pennsylvania, Inc.

Joseph L. Vullo, Esq.
Burke Vullo Reilly Roberts
1460 Wyoming Avenue
Forty Fort, PA 18704
jlvullo@bvrrlaw.com
*Counsel for Community Action
Association of Pennsylvania*

Elizabeth R. Marx, Esq.
Ria M. Pereira, Esq.
John W. Sweet, Esq.
Pennsylvania Utility Law Project
118 Locust Street
Harrisburg, PA 17101
pulp@palegalaid.net
Counsel for CAUSE-PA

Charis Mincavage, Esq.
Kenneth R. Stark, Esq.
McNees Wallace & Nurick LLC
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166
cmincavage@mcneeslaw.com
kstark@mcneeslaw.com
Counsel for CII

Thomas J. Sniscak, Esq.
Whitney E. Snyder, Esq.
Hawke, McKeon & Sniscak, LLP
100 North Tenth Street
Harrisburg, PA 17101
tjsniscak@hmslegal.com
wesnyder@hmslegal.com
*Counsel for
The Pennsylvania State University*

Kevin W. O'Donnell
Nova Energy Consultants, Inc.
1350 SE Maynard Road
Suite 101
Cary, NC 27511
OCACGPA2020@paoca.org
Consultant for OCA

Jerome D. Mierzwa
Exeter Associates, Inc.
10480 Little Patuxent Pkwy
Suite 300
Columbia, MD 21044-3575
ocacpga2020@paoca.org
Consultant for OCA

Mitchell Miller
Mitch Miller Consulting LLC
60 Geisel Road
Harrisburg, PA 17112
mitchmiller77@hotmail.com
Consultant for CAUSE-PA

Robert D. Knecht
Industrial Economics, Inc.
2067 Massachusetts Ave.
Cambridge, MA 02140
rdk@indecon.com
Consultant for OSBA

Dr. Richard Collins
440 Monmouth Drive
Cranberry Township, PA 16066-5756
richardcollins@consolidated.net
Complainant

Roger Colton
Fisher, Sheehan & Colton
34 Warwick Road
Belmont, MA 02478
OCACGPA2020@paoca.org
Consultant for OCA

David J. Effron
Berkshire Consulting Services
12 Pond Path
North Hampton, NH 03862
OCACGPA2020@paoca.org
Consultant for OCA

Scott Rubin
333 Oak Lane
Bloomsburg, PA 17815
OCACGPA2020@paoca.org
Consultant for OCA

James L. Crist
Lumen Group, Inc.
4226 Yarmouth Drive
Suite 101
Allison Park, PA 15101
jlcris@aol.com
Consultant for Penn State University



Erika L. McLain
Prosecutor
Bureau of Investigation and Enforcement
PA Attorney ID No. 320526