

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Co-	)	
lumbia Gas of Ohio, Inc. for Authority	)	
to Amend its Filed Tariffs to Increase the	)	Case No. 21-637-GA-AIR
Rates and Charges for Gas Services and	)	
Related Matters.	)	

In the Matter of the Application of Co-	)	
lumbia Gas of Ohio, Inc. for Approval of	)	Case No. 21-638-GA-ALT
an Alternative Form of Regulation.	)	

In the Matter of the Application of Co-	)	
lumbia Gas of Ohio, Inc. for Approval of	)	
a Demand Side Management Program	)	Case No. 21-639-GA-UNC
for its Residential and Commercial Cus-	)	
tomers.	)	

In the Matter of the Application of Co-	)	
lumbia Gas of Ohio, Inc. for Approval to	)	Case No. 21-640-GA-AAM
Change Accounting Methods.	)	

**PREPARED SUPPLEMENTAL DIRECT TESTIMONY OF
PAUL MOUL
ON BEHALF OF COLUMBIA GAS OF OHIO, INC.**

- ☐ Management policies, practices, and organization
- ☐ Operating income
- ☐ Rate base
- ☐ Allocations
- ☒ Rate of return
- ☐ Rates and tariffs
- ☐ Other

Joseph M. Clark, Asst. Gen. Counsel
(0080711)

John R. Ryan, Sr. Counsel (0090607)

P.O. Box 117

290 W. Nationwide Blvd.

Columbus, Ohio 43216-0117

Telephone: (614) 813-8685

(614) 285-2220

E-mail: josephclark@nisource.com

johnryan@nisource.com

Eric B. Gallon (0071465)

Mark S. Stemm (0023146)

L. Bradfield Hughes (0070997)

Devan K. Flahive (0097457)

Porter, Wright, Morris & Arthur LLP

41 South High Street

Columbus, OH 43215

Telephone: (614) 227-2000

Email: egallon@porterwright.com

mstemm@porterwright.com

bhughes@porterwright.com

dflahive@porterwright.com

(Willing to accept service by e-mail)

May 13, 2022

Attorney for

COLUMBIA GAS OF OHIO, INC.

**PREPARED SUPPLEMENTAL DIRECT TESTIMONY
OF PAUL MOUL**

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Paul Moul and my address is 251 Hopkins Road, Haddonfield, New Jersey 08033-3062.

Q. By whom are you employed?

A. I am Managing Consultant at the firm P. Moul & Associates, an independent financial and regulatory consulting firm.

Q. Are you the same Paul Moul who submitted Prepared Direct Testimony in this proceeding?

A. Yes, I am.

Q. On whose behalf are you appearing in this proceeding?

A. I am appearing on behalf of Columbia Gas of Ohio, Inc.

II. PURPOSES OF TESTIMONY

Q. What are the purposes of your Supplemental Direct Testimony in this proceeding?

A. The purposes of my Supplemental Direct Testimony are 1) to demonstrate why the recommendations in the Staff Report dated April 6, 2022, concerning rate of return are flawed, and 2) to update my recommended return on equity for Columbia caused by changes in financial conditions since I completed my Prepared Direct Testimony for this proceeding.

III. COST OF LONG-TERM DEBT (OBJECTION 4.1)

Q. Why has Columbia objected to Staff's recommendation for the cost of long-term debt?

A. Staff employed the 4.67% embedded cost rate rather than the updated rate of 4.49% that resulted after the Company's refinancing of maturing high cost (i.e., 6.015%) debt at a lower rate of 3.224% in November 2021.

Q. Did Columbia advise the Commission of this update?

A. Yes. See Attachment PRM-1-S.

1
2 **Q. Did your direct testimony address this refinancing?**

3 A. Yes. On page 13 of my prepared direct testimony, I stated that the
4 Company would update the cost of debt for the refinancing after it was
5 known. The Company is following through with this commitment here.
6

7 **IV. COST OF EQUITY (OBJECTION 4.2)**
8

9 **Q. Why has Columbia objected to Staff's proposed cost of equity range?**

10 A. Staff's range of the cost of equity of 8.96% to 9.96%, prior to an allowance
11 for issuance costs, is too low. It does not provide Columbia the opportunity
12 to earn a fair return on equity and does not sufficiently account for the
13 quantitative and qualitative risks of Columbia, returns earned by
14 comparable companies, or investor expectations, all as I identified in my
15 initial prepared direct testimony. This range also does not account for the
16 changes in financial conditions that I will discuss later in my supplemental
17 testimony. Finally, Staff's range does not align with the range produced by
18 Staff's use of the CAPM and DCF models used to measure the cost of equity.
19

20 **Q. Please explain.**

21 A. As I will explain below, a restatement of the DCF results following the Staff
22 Report model provides a return of 9.798% prior to flotation costs.
23 Additionally, a forward-looking CAPM would produce an 11.03% return,
24 also prior to flotation costs.
25

26 **V. PROXY GROUP OF COMPARABLE COMPANIES (OBJECTION 4.3)**
27

28 **Q. Why has Columbia objected to Staff's selection of utilities "comparable"**
29 **to Columbia?**

30 A. Staff's group of companies are not comparable in risk to Columbia. Indeed,
31 only one company (Atmos Energy) is a pure-play local distribution com-
32 pany ("LDC"). The other companies used in the Staff Report are not com-
33 parable because they are engaged in significant amounts of business activ-
34 ities other than providing natural gas distribution utility service. This is
35 shown below:

Company	Natural Gas Revenues	Natural Gas. Earnings	Natural Gas Assets
Ameren Corporation	15%	11%	10%
Atmos Energy Corp.	95%	67%	96%
CenterPoint Energy, Inc.	52%	60%	46%
CMS Energy Corp.	28%	22%	37%
Evergy, Inc.	0%	0%	0%
OGE Energy Corp.	0%	52%	6%
Pinnacle West Capital Corporation	0%	0%	0%
Average	27%	30%	28%

Other than Atmos, CenterPoint is the only company in the Staff's comparable group that arguably resembles Columbia in any way in terms of revenues, earnings, and/or assets. OGE Energy is an anomaly due to the acquisition of its interest in Enable Midstream Partners by Energy Transfer, LP. All of the remaining companies have little or no natural gas distribution operations.

VI. CAPITAL ASSET PRICING MODEL ("CAPM") METHODOLOGY (OBJECTION 4.4)

Q. Why has Columbia objected to Staff's CAPM methodology?

A. There are four reasons. First, Staff's use of the September 1, 1991 through September 1, 2021 timeframe for the CAPM is incompatible with the specification of the model that is expectational, and contrary to its specification. CAPM is a forward-looking representation of investor expectations. Staff incorrectly employed a backward-looking approach.

Second, the beta component of the CAPM that measures systematic risk should be based upon the Value Line betas. Standard & Poor's betas used in the Staff Report are much less common inputs in the CAPM when used in regulatory proceedings. The use of Value Line's inputs is a more logical metric for comparing Columbia's rate of return inputs to other companies, because of its widespread use by investors and in regulatory proceedings.

Third, the market risk premium taken from "Fairness Finance" is too low. This source is obscure and not typically used in regulatory proceedings.

Staff also has not provided underlying assumptions used by this obscure source when determining its market risk premium. The insufficiency of Staff's market risk premium is further illuminated when viewed in combination with Staff's risk-free rate of return. Here, the Staff Report's total market return is 10.56% (4.35% + 6.21%). This is too low because the actual total market return was 12.70% covering the period 1991 through 2021, a period selected by Staff. The support for the 12.70% total market return is shown on Attachment PRM-2-S. Consequently, the market risk premium, derived from the total market return indicated above, is 8.35% (12.70% - 4.35%) using the Staff Report risk-free rate of return of 4.35%.

Fourth, Staff neglects to recognize that a size adjustment is necessary to complete the CAPM analysis. The beta, the only component of the CAPM that is company-specific, is a measure of systematic risk that does not compensate for the size of a firm. As the widely-accepted Fama/French study established thirty-years ago, size represents a separate risk factor that must be considered in the CAPM. This would add 1.02% to the resulting CAPM result shown above.

Q. What would be the result of the CAPM considering the third item discussed above?

A. The resulting CAPM would be:

$$\begin{array}{lcl} \text{Capital Asset Pricing Model (CAPM)} & R_f & + (\beta \times (R_m - R_f)) = k \\ \text{Staff's } R_f \text{ and } \beta & 4.35\% & + (0.80 \times (8.35\%)) = 11.03\% \end{array}$$

VII. DISCOUNTED CASH FLOW ("DCF") ANALYSIS (OBJECTION 4.5)

Q. Why has Columbia objected to Staff's DCF analysis?

A. In developing the DCF growth component, there is no justification for deviating from the Value Line published growth forecasts of earnings "shown in the box" as described in the Staff Report. Staff's separate calculation of the "implicit continuous growth rate" is inappropriate in the DCF analysis. Staff has not shown, nor could it show, that investors use the Staff Report calculations when deciding to buy, hold, or sell the stocks in the Staff Report proxy group. As such, these calculations in the Staff Report are not investor influencing and are misplaced in the DCF calculation. As such, the growth rates that should be used in the non-constant DCF model are shown on tab SCHD-1.4 on Attachment PRM-3-S.

1 **Q. What would be the result of the non-constant DCF return considering this**
2 **change?**

3 A. As shown on tab SCHD-1.4 in Attachment PRM-3-S, the revised non-con-
4 stant DCF return is 9.787%.

5
6 **Q. Are there any other objections to the Staff's position on equity return?**

7 A. Yes, Staff neglected to include the leverage adjustment to the DCF return. I
8 initially established that the DCF return needs to be adjusted upward by
9 0.93% to recognize the financial risk associated with the book value of the
10 utility's capitalization rather than the market value of the capitalization,
11 which is associated with the stock price used in the DCF. *See* my initial
12 prepared direct testimony at pages 19-22. In view of the changes in financial
13 conditions summarized later in my supplemental testimony, the reasonable
14 adjustment should now be 1.22%.

15
16 **Q. What would the revised return be using the Staff Report as a basis?**

17 A. The revised Staff Report ROE would be 11.53%. The leverage adjustment
18 would increase the DCF return to 11.007% (9.787% + 1.22%) and the size
19 adjustment would increase the CAPM to 12.05% (11.03% + 1.02%). An
20 adjustment for equity issuance costs also should have been included.

21
22 **VIII. MATTERS CAUSED BY CHANGES IN FINANCIAL CONDITIONS**
23

24 **Q. Have you identified any matters caused by changes in financial**
25 **conditions since you submitted your initial prepared direct testimony?**

26 A. Yes, changes in financial conditions have caused me to review and update
27 many of the inputs used in the established models I previously relied upon
28 to determine a reasonable rate of return on common equity.
29

30 **Q. What are the four models you applied in your initial testimony?**

31 A. DCF, Risk Premium ("RP"), CAPM, and Comparable Earning (CE).
32

33 **Q. Did you deviate at all from the methodology described in your initial**
34 **testimony?**

35 A. No, I just updated the inputs to reflect the changes in financial conditions.
36

37 **Q. What financial conditions have changed since your initial Prepared**
38 **Direct Testimony?**

39 A. A host of events have occurred since I assembled the financial and market
40 data in my prepared direct testimony. That data ended generally in March

1 2021. Since that time, accommodative policy by the FOMC has ended and
2 higher interest rates have occurred and will continue in the future. Since
3 my prepared testimony was prepared, higher inflation expectations
4 represent a contributing factor that points to higher interest rates. Higher
5 inflation today is revealed by a 5.9% increase in social security payments
6 announced on October 13, 2021, the largest one-year increase in nearly four
7 decades. The inflation rate in March 2022 was 8.5%, the fastest rate since
8 December 1981. Due to these inflationary pressures, the FOMC ended its
9 bond buying program (i.e., quantitative easing) in March 2022, and it now
10 plans to run off its \$9 trillion asset portfolio, which will boost interest rates.
11 Moreover, the first of several Fed Funds rate increases occurred on March
12 16, 2022, with an increase of 0.25% and an additional 0.50% increase
13 occurred on May 4, 2022. A 50 basis point increase in the Fed Funds rate
14 has not occurred since 2000. Additional increases are expected in 2022 and
15 2023. Current FOMC policy will produce even higher interest rates
16 prospectively that should be incorporated into the cost of equity now. The
17 yield on 30-year Treasury bonds moved to 2.81% in April 2022, or an
18 increase of 1.14% (or 68%) from year end 2020. Likewise, the yield on A-
19 rated public utility bonds has increased to 4.32% in April 2022 from 2.77%
20 at December 2020 – a 1.55% basis point (or 56%) increase. These increases
21 in interest rates are expected to continue in the future. To gain a consensus
22 view of future interest rates, I tabulated the forecasts of yields on 10-year
23 Treasury notes published by a variety of well recognized and investor-
24 influencing sources. I chose the 10-year Treasury note because it is available
25 on a consistent basis across all sources. The comparisons are:

	2023	2024	2025	2026	2027	Change in Basis Points
<u>Blue Chip</u>	2.40%	2.80%	3.10%	3.20%	3.20%	80
<u>EIA</u>	1.36%	1.57%	1.80%	2.03%	2.25%	89
<u>CBO</u>	2.03%	2.29%	2.57%	2.79%	2.98%	95

26 The universal consensus is that interest rates will increase in the future. The
27 rising level of interest rates represents one key factor that adds to the risk

1 of common equity. It is apparent that the trough in interest rates has passed
2 and the forecasts show interest rates will rise in the future. Higher interest
3 rates clearly point to higher capital costs prospectively.
4

5 **Q. Why did these changes in financial conditions cause you to update your**
6 **recommendation for the cost of equity?**

7 A. Along with changes in interest rates, there have been changes in the stock
8 market. Since the onset of the Pandemic, returns on the stock market were
9 18.40% in 2020 and 28.71% in 2021, as compared to the 12.33% average for
10 the past 96 years (1926-2021). The stock market subsequently entered
11 “correction” territory in 2022. Overall market sentiment is revealed by
12 investor expected volatility, which provides an overall assessment of the
13 risk that prevails in the equity market. The risk associated with common
14 stock investments is revealed by the volatility of the stock market measured
15 by the Chicago Board Options Exchange (“CBOE”) VIX. The VIX is based
16 on real-time prices of options on the S&P 500 Index and is designed to
17 reflect investors’ consensus view of future (30-day) expected stock market
18 volatility. It is well-established that greater volatility indicates higher risk,
19 which, all else equal, translates into a higher cost of equity. It is widely
20 accepted that high readings for the VIX are often accompanied by bearish
21 sentiment and a low VIX is associated with bullish sentiment. The trading
22 pattern of the VIX is typically inverse to the level of stock prices. That is to
23 say, the VIX increases when stock prices are falling and the VIX declines
24 when stock prices rise. This situation is sometimes associated with
25 increases in the cost of equity when the VIX increases and vis-a-versa. For
26 2022 to date, the VIX was 27.64. This compares with the VIX of 19.78 in 2019
27 prior to the beginning of the financial consequences of the Pandemic. We
28 can see that the VIX spiked upward with the beginning of the Pandemic.
29

<u>Year</u>	<u>Average VIX</u>
2019	19.78
2020	48.61
2021	25.41
2022 YTD	27.64

30 While dramatic volatility in the stock market has subsided since the
31 beginning of the Pandemic in 2020, it continues to significantly exceed pre-
32 Pandemic levels. The current level of risk associated with common stocks,
33 as revealed by the higher VIX in 2022, warrants a higher equity return at

1 this time because the higher stock market volatility signifies higher risk that
2 requires higher returns in compensation for the higher risk.
3

4 **Q. Did you need to examine all four of the models you relied upon in your**
5 **initial prepared direct testimony in response to the changes in financial**
6 **conditions?**

7 A. Yes.
8

9 **Q. Beginning with DCF, which inputs did you revise?**

10 A. As reflected in Attachment PRM-4-S, page 2, I updated my previous sixth
11 month average dividend yield and leverage adjustment. The dividend
12 yield decreased from 3.69% to 3.26% and the leverage adjustment increased
13 from 0.93% to 1.22%.
14

15 **Q. What changes in financial conditions prompted these revisions?**

16 A. Use of later stock market data through April 2022 caused the change in the
17 dividend yields. Use of fiscal year 2021 versus 2020 data in my prefiled
18 direct testimony caused the change in the financial leverage adjustment.
19

20 **Q. How did you calculate these new figures?**

21 A. My calculations are shown in Attachments PRM-5-S, PRM-6-S and PRM-7-
22 S.
23

24 **Q. How did your revisions of those two inputs affect the result of your DCF**
25 **analysis?**

26 A. They reduced the DCF cost of equity, before flotation costs, from 11.37% to
27 11.23%.
28

29 **Q. Turning next to the Risk Premium model, which inputs did you revise?**

30 A. I revised my previous estimate of the prospective yield on long-term A-
31 rated utility bonds from 3.75% to 4.25%.
32

33 **Q. What changes in financial conditions prompted this revision?**

34 A. The use of current interest rate forecast was part of the increase in the results
35 of the Risk Premium model. The risk premium itself did not change,
36 although an update with 2021 annual data provided additional support for
37 my risk premium determination.
38

39 **Q. How did you calculate this new yield?**

40 A. My calculations are shown in Attachments PRM-8-S, PRM-10-S, page 2.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40

Q. How did your revision of this yield affect the result of your RP analysis?

A. The RP cost of equity increased, before flotation costs, from 10.50% to 11.00%.

Q. Turning next to the CAPM model, which inputs did you revise?

A. I revised the risk-free rate of return from 2.75% to 3.00%, the beta from 0.98 to 1.02, and the market risk premium from 8.92% to 10.36%.

Q. What changes in financial conditions prompted these revisions?

A. Later data through April 2022 supports these updates. Later interest rate forecasts enumerated above, later total market returns, and updated Value Line betas contributed to the change.

Q. How did you calculate these values?

A. My calculations are shown in Attachments PRM-7-S and PRM-10-S, page 2.

Q. How did your updates affect the result of your CAPM analysis?

A. The CAPM cost of equity increased, before flotation costs, from 12.51% to 14.59%.

Q. Finally, turning to the Comparable Earnings model, which inputs did you update?

A. I revised both the historical and forecasted projections as shown in Attachment PRM-11-S.

Q. What changes in financial conditions prompted these revisions?

A. Again, later Value Line data in April 2022 contributed to the change.

Q. How did your updates affect the result of your CE analysis?

A. The CE cost of equity increased from 12.15% to 12.90%.

Q. Did you make any other adjustments to inputs for purposes of providing an accurate update?

A. Yes, I applied Columbia's lower 4.49% embedded cost on long-term debt to replace the previously applicable 4.67% and removed South Jersey Industries from my gas proxy group of companies because it is now being acquired by a private equity investor.

Q. Please summarize your updated cost of equity analysis.

1 A. My conclusion based on latest available data is that the Company should
2 be afforded an opportunity to earn a rate of return on common equity of at
3 least 11.30%. As shown on page 1 of Attachment PRM-4-S, I have presented
4 the weighted average cost of capital for the Company, which is 7.94%. My
5 updated cost of equity determination was derived from the results of the
6 methods/models identified in the following table:
7

<u>Gas Group</u> ²	
DCF	11.23%
RP	11.00%
CAPM	14.59%
Comparable Earnings	12.90%
Average	12.43%
Median	12.07%
Mid-point	12.80%

8
9
10 Focusing upon the market model approaches of the cost of equity, the
11 average equity return is 12.27% ($11.23\% + 11.00\% + 14.59\% = 36.82\% \div 3$),
12 based on DCF, RP and CAPM. The average results for the DCF and RP
13 methods are 11.12% ($11.23\% + 11.00\% = 22.23\% \div 2$). Had flotation costs that
14 I show in PRM-4-S, page 2 been included, the results would have been
15 higher by 0.17%, except for Comparable Earnings. From all these measures,
16 I recommend that the Commission set the Company's rate of return on
17 common equity at least at 11.30%.

18
19 **Q. Applying the rate of return of 11.30% on common equity, what is the**
20 **weighted average cost of capital for Columbia?**

21 A. As shown in Attachment PRM-4-S, page 1, it is 7.94%.

22
23 **Q. Did Columbia correctly update its D Schedules to incorporate your**
24 **updated cost of equity and long-term debt?**

¹ Excluding flotation costs, which are defined as the out-of-pocket costs associated with the issuance of common stock. Those costs typically consist of the underwriters' discount and company issuance expenses.

1 A. Yes. See Attachment PRM-12-S.

2

3 **Q. If you were to apply Staff's chosen combination of models, what is the**
4 **resulting cost of equity when using your updated values?**

5 A. Staff applied $[\text{DCF} + \text{flotation costs}] + [\text{CAPM} + \text{flotation costs}] \div 2$. Inserting
6 my updated values, this would be $[11.23\% \times 1.015] + [14.59\% + 0.17] \div 2 =$
7 $11.40\% + 14.76\% \div 2 = 13.08\%$.

8

9 **Q. Applying the rate of return of 13.08% on common equity, what would be**
10 **the weighted average cost of capital for Columbia?**

11 A. 8.84%.

12

13 **IX. CONCLUSION**

14

15 **Q. Does this complete your Prepared Supplemental Direct Testimony?**

16 A. Yes, it does.

CERTIFICATE OF SERVICE

The Public Utilities Commission of Ohio's e-filing system will electronically serve notice of the filing of this document on the parties referenced on the service list of the docket card who have electronically subscribed to the case. In addition, the undersigned hereby certifies that a copy of the foregoing document is also being served via electronic mail on the 13th day of May, 2022, upon the persons listed below.

/s/ Joseph M. Clark

Joseph M. Clark

Attorney for

COLUMBIA GAS OF OHIO, INC.

Citizens' Utility Board of Ohio	Trent Dougherty trent@hubaydougherty.com
Environmental Law & Policy Center	Janean R. Weber jweber@elpc.org
IEU-Ohio	Matthew R. Pritchard Bryce A. McKenney McNees Wallace & Nurick LLC mpritchard@mcneeslaw.com bmckenney@mcneeslaw.com
Interstate Gas Supply, Inc.	Michael Nugent Evan Betterton Joseph Olier michael.nugent@igs.com evan.betterton@igs.com joe.olier@igs.com
The Kroger Company	Angela Paul Whitfield Carpenter Lipps & Leland LLP paul@carpenterlipps.com

Northeast Ohio Public Energy Council	Devin D. Parram BRICKER & ECKLER LLP dparram@bricker.com Glenn S. Krassen gkrassen@nopec.org
Office of the Ohio Consumers' Counsel	Angela D. O'Brien William J. Michael Assistant Consumers' Counsel angela.obrien@occ.ohio.gov william.michael@occ.ohio.gov
Ohio Energy Group (OEG)	Michael L. Kurtz, Esq. Kurt J. Boehm, Esq. Jody Kyler Cohn, Esq. BOEHM, KURTZ & LOWRY mkurtz@BKLawfirm.com kboehm@BKLawfirm.com jkylercohn@BKLawfirm.com
Ohio Manufacturers' Association Energy Group	Kimberly W. Bojko Jonathan Wygonski Carpenter Lipps & Leland LLP Bojko@carpenterlipps.com Wygonski@carpenterlipps.com
Ohio Partners for Affordable Energy	Robert Dove Kegler Brown Hill + Ritter Co., L.P.A. rdove@keglerbrown.com
Ohio School Council	Glenn S. Krassen BRICKER & ECKLER LLP gkrassen@bricker.com Dane Stinson BRICKER & ECKLER LLP dstinson@bricker.com

Retail Energy Supply Association	Michael J. Settineri Gretchen L. Petrucci Vorys, Sater, Seymour and Pease LLP mjsettineri@vorys.com glpetrucci@vorys.com
---	---

15992022v1

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF LONG-TERM DEBT

####

TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S):

SCHEDULE D-3A

PAGE 1 OF 1

WITNESS RESPONSIBLE:

P.R. MOUL

As filed	Revised
6.015%	3.224%

LINE NO.	DEBT ISSUE TYPE, COUPON RATE	DATE ISSUED (DAY/MO/YR) (A)	MATURITY DATE (DAY/MO/YR) (B)	PRINCIPAL AMOUNT (C)	FACE AMOUNT OUTSTANDING (D)	UNAMORT. (DISCOUNT) OR PREMIUM (E)	UNAMORT. DEBT EXPENSE (F)	UNAMORT. LOSS ON REACQUIRED DEBT (G)	CARRYING VALUE (H=D+E-F-G)	ANNUAL INTEREST COST (I)
1 PROMISSORY NOTES PAYABLES										
2	SERIES	3.224%	1-Nov-06	1-Nov-21	110,000,000	110,000,000			110,000,000	3,545,850
3	SERIES	5.920%	28-Nov-05	28-Nov-25	89,926,000	89,926,000			89,926,000	5,323,619
4	SERIES	6.865%	14-Dec-07	14-Dec-27	50,000,000	50,000,000			50,000,000	3,432,500
5	SERIES	5.910%	21-Dec-10	20-Dec-30	37,500,000	37,500,000			37,500,000	2,216,250
6	SERIES	6.100%	21-Dec-10	21-Dec-35	37,500,000	37,500,000			37,500,000	2,287,500
7	SERIES	4.630%	28-Nov-12	29-Nov-32	10,000,000	10,000,000			10,000,000	463,000
8	SERIES	4.940%	28-Nov-12	30-Nov-37	95,000,000	95,000,000			95,000,000	4,693,000
9	SERIES	5.260%	28-Nov-12	28-Nov-42	95,000,000	95,000,000			95,000,000	4,997,000
10	SERIES	6.290%	18-Dec-13	18-Dec-43	100,000,000	100,000,000			100,000,000	6,290,000
11	SERIES	4.430%	18-Dec-14	16-Dec-44	60,000,000	60,000,000			60,000,000	2,658,000
12	SERIES	4.607%	30-Nov-15	30-Nov-45	178,000,000	178,000,000			178,000,000	8,200,460
13	SERIES	4.437%	30-Nov-16	30-Nov-46	150,000,000	150,000,000			150,000,000	6,656,100
14	SERIES	4.112%	29-Sep-17	29-Sep-47	150,000,000	150,000,000			150,000,000	6,168,450
15	SERIES	4.528%	29-Jun-18	29-Jun-48	170,000,000	170,000,000			170,000,000	7,697,430
16	SERIES	4.287%	29-Mar-19	29-Mar-49	80,000,000	80,000,000			80,000,000	3,429,600
17	SERIES	3.174%	30-Jun-20	30-Jun-50	300,000,000	300,000,000			300,000,000	9,522,000
18	SERIES	3.652%	31-Mar-21	31-Mar-51	70,000,000	70,000,000			70,000,000	2,556,470
19	Current Maturities				-	-	-	-	-	-
20	Total				1,782,926,000	1,782,926,000	-	-	1,782,926,000	80,137,229
21	Embedded Cost of Long-Term Debt (I / H)									4.49%

Basic Series
Annual Total Returns (except yields)

Year	Large Common Stocks	Long- Term Corp. Bonds	Long- Term Govt. Bonds Yields
1991	30.47%	19.89%	7.30%
1992	7.62%	9.39%	7.26%
1993	10.08%	13.19%	6.54%
1994	1.32%	-5.76%	7.99%
1995	37.58%	27.20%	6.03%
1996	22.96%	1.40%	6.73%
1997	33.36%	12.95%	6.02%
1998	28.58%	10.76%	5.42%
1999	21.04%	-7.45%	6.82%
2000	-9.10%	12.87%	5.58%
2001	-11.89%	10.65%	5.75%
2002	-22.10%	16.33%	4.84%
2003	28.68%	5.27%	5.11%
2004	10.88%	8.72%	4.84%
2005	4.91%	5.87%	4.61%
2006	15.79%	3.24%	4.91%
2007	5.49%	2.60%	4.50%
2008	-37.00%	8.78%	3.03%
2009	26.46%	3.02%	4.58%
2010	15.06%	12.44%	4.14%
2011	2.11%	17.95%	2.55%
2012	16.00%	10.68%	2.46%
2013	32.39%	-7.07%	3.78%
2014	13.69%	17.28%	2.46%
2015	1.38%	-1.02%	2.68%
2016	11.96%	6.70%	2.72%
2017	21.83%	12.25%	2.54%
2018	-4.38%	-4.73%	2.84%
2019	31.49%	19.95%	2.25%
2020	18.40%	15.40%	1.37%
2021	28.71%	-2.66%	1.88%
Average	12.70%	8.26%	4.50%

Source of Information:

2022 SBBI Yearbook Stocks, Bonds, Bills, and Inflation

**COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
RATE OF RETURN SUMMARY**

**SCHEDULE D-1A
PAGE 1 OF 1**

LINE NO.	CLASS OF CAPITAL	REFERENCE	ACTUAL AMOUNT \$000	% OF TOTAL	(%) COST	WEIGHTED COST %
1	LONG-TERM DEBT	D-3	1,782,926	49.40%	4.67%	2.31%
2	PREFERRED STOCK	D-4	-	0.00%	0.00%	0.00%
3	LOW-END COMMON EQUITY		1,826,055	50.60%	9.04%	4.57%
4	HIGH-END COMMON EQUITY		1,826,055	50.60%	10.05%	5.08%
5	LOW-END TOTAL CAPITAL		3,608,981	100.00%		6.88%
6	HIGH-END TOTAL CAPITAL		3,652,111	101.20%		7.39%

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Equity Issuance Cost Adjustment
As of March 31, 2021

Staff Schedule D-1.1

Line No.	Adjustment	Amount
1	Retained Earnings ¹	\$1,387,603
2		
3	Total Common Equity ²	\$1,826,055
4		
5	Ratio of (1) to (3)	0.75989
6		
7	Generic Issuance Cost, f	3.50%
8		
9	External Equity Ratio, w [1.0 - (5)]	0.24011
10		
11	Net Adjustment Factor, $(w/(1 - f)) + (1 - w)$	1.00871
12		
13	Low End Equity Cost [8.96 x Line (11)]	9.04%
14		
15	High End Equity Cost [9.96 x Line (11)]	10.05%

Sources:

- 1 From Filing in current cas
- 2 Applicant's Schedule D-1

NISOURCE INC.
CASE NO. 21-637-GA-AIR
RATE of RETURN SUMMARY
AS OF MARCH 31, 2021

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-1B
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	CLASS of CAPITAL	REFERENCE	AMOUNT (\$000)	% of TOTAL	COST	WEIGHTED COST
1	Long-term debt	D-3	8,848,961	59.49%	4.63%	2.75%
2						
3	Preferred stock	D-4	880,000	5.92%	6.26%	0.37%
4						
5	Common equity	D-1.1	5,145,676	34.59%		Not Determined
6						
7	Total capital		14,874,638	100.00%		Not Determined
8						
9	Accumulated deferred investment					
10	tax credit - Acct 255		8,247			
11						
12	Accumulated deferred income					
13	taxes - Acct 281 (accel amort)		0			
14						
15	Accumulated deferred income					
16	taxes - Acct 282		429,385			
17						
18	Accumulated deferred income					
19	taxes - Acct 283		2,259,728			

COLUMBIA GAS OF OHIO, INC
CASE NO. 21-637-GA-AIR
COMMON EQUITY
AS OF MARCH 31, 2021

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S):: See Below

SCHEDULE D-1.1
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	CLASS of CAPITAL	COMMON STOCK (\$000)	PAID-IN CAPITAL (\$000)	RETAINED EARNINGS (\$000)	OTHER MISC. COMMON EQUITY (\$000)	INTERCOMPANY ELIMINATIONS (\$000)	REFERENCE	TOTAL COMMON EQUITY (\$000)
1	Columbia Gas of Ohio, Inc.	159,240	279,213	1,387,603	-	-	D-1A	1,826,055
2	NiSource Inc.	3,961	6,892,916	(1,669,868)	(81,332)	-	D-1B	5,145,676

COLUMBIA GAS OF OHIO, INC
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF SHORT-TERM DEBT

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S).:

SCHEDULE D-2A
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	ISSUE (A)	<u>AMOUNT OUTSTANDING</u>		INTEREST RATE (C)	INTEREST REQUIREMENT (D)
		<u>Notes Payable & Commercial Paper</u> (B)	<u>Current Maturities of LTD</u>		
		(\$)		(%)	(\$)

N/A - Rule Waiver

NISOURCE INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF SHORT-TERM DEBT

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S).:

SCHEDULE D-2B
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	ISSUE (A)	<u>AMOUNT OUTSTANDING</u>		INTEREST RATE (C)	INTEREST REQUIREMENT (D)
		<u>Notes Payable & Commercial Paper</u> (B)	<u>Current Maturities of LTD</u>		
		(\$)		(%)	(\$)

N/A - Rule Waiver

SCHEDULE D-3A
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DEBT ISSUE TYPE, COUPON RATE	DATE ISSUED (DAY/MO/YR) (A)	MATURITY DATE (DAY/MO/YR) (B)	PRINCIPAL AMOUNT (C)	FACE AMOUNT OUTSTANDING (D)	UNAMORT. (DISCOUNT) OR PREMIUM (E)	UNAMORT. DEBT EXPENSE (F)	UNAMORT. LOSS ON REACQUIRED DEBT (G)	CARRYING VALUE (H=D+E-F-G)	ANNUAL INTEREST COST (I)
1 PROMISSORY NOTES PAYABLES										
2	SERIES	6.015%	1-Nov-06	1-Nov-21	110,000,000	110,000,000			110,000,000	6,616,500
3	SERIES	5.920%	28-Nov-05	28-Nov-25	89,926,000	89,926,000			89,926,000	5,323,619
4	SERIES	6.865%	14-Dec-07	14-Dec-27	50,000,000	50,000,000			50,000,000	3,432,500
5	SERIES	5.910%	21-Dec-10	20-Dec-30	37,500,000	37,500,000			37,500,000	2,216,250
6	SERIES	6.100%	21-Dec-10	21-Dec-35	37,500,000	37,500,000			37,500,000	2,287,500
7	SERIES	4.630%	28-Nov-12	29-Nov-32	10,000,000	10,000,000			10,000,000	463,000
8	SERIES	4.940%	28-Nov-12	30-Nov-37	95,000,000	95,000,000			95,000,000	4,693,000
9	SERIES	5.260%	28-Nov-12	28-Nov-42	95,000,000	95,000,000			95,000,000	4,997,000
10	SERIES	6.290%	18-Dec-13	18-Dec-43	100,000,000	100,000,000			100,000,000	6,290,000
11	SERIES	4.430%	18-Dec-14	16-Dec-44	60,000,000	60,000,000			60,000,000	2,658,000
12	SERIES	4.607%	30-Nov-15	30-Nov-45	178,000,000	178,000,000			178,000,000	8,200,460
13	SERIES	4.437%	30-Nov-16	30-Nov-46	150,000,000	150,000,000			150,000,000	6,656,100
14	SERIES	4.112%	29-Sep-17	29-Sep-47	150,000,000	150,000,000			150,000,000	6,168,450
15	SERIES	4.528%	29-Jun-18	29-Jun-48	170,000,000	170,000,000			170,000,000	7,697,430
16	SERIES	4.287%	29-Mar-19	29-Mar-49	80,000,000	80,000,000			80,000,000	3,429,600
17	SERIES	3.174%	30-Jun-20	30-Jun-50	300,000,000	300,000,000			300,000,000	9,522,000
18	SERIES	3.652%	31-Mar-21	31-Mar-51	70,000,000	70,000,000			70,000,000	2,556,470
19 Current Maturities					-	-	-	-	-	-
20	Total			1,782,926,000	1,782,926,000	-	-	-	1,782,926,000	83,207,879
21 Embedded Cost of Long-Term Debt (I / H)										4.67%

NISOURCE INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF LONG-TERM DEBT

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S):

WITNESS

LINE NO.	DEBT ISSUE TYPE, COUPON RATE	DATE ISSUED (DAY/MO/YR) (A)	MATURITY DATE (DAY/MO/YR) (B)	PRINCIPAL AMOUNT (C)	FACE AMOUNT OUTSTANDING (D)	UNAMORT. (DISCOUNT) OR PREMIUM (E)	CARRYING VALUE (F=D+E)	ANNUAL AMORTIZATION COST (G)	ANNUAL COUPON COST (H)	
1	Medium Term Notes									
2	NiSource Inc.									
3	Notes	7.990%	31-Mar-97	1-Apr-22	6,000,000	6,000,000	(6,220)	5,993,780	479,400	
4	Notes	7.990%	31-Mar-97	1-Apr-22	8,000,000	8,000,000	(8,294)	7,991,706	639,200	
5	Notes	7.990%	31-Mar-97	1-Apr-22	6,000,000	6,000,000	(6,220)	5,993,780	479,400	
6	Notes	7.990%	5-May-97	5-May-27	29,000,000	29,000,000	(88,936)	28,911,064	2,317,100	
7	Northern Indiana									
8	Series E	7.400%	26-Aug-97	30-Aug-22	10,000,000	10,000,000	(4,208)	9,995,792	740,000	
9	Series E	7.690%	6-Jun-97	7-Jun-27	20,000,000	20,000,000	(30,808)	19,969,192	1,538,000	
10	Series E	7.690%	6-Jun-97	7-Jun-27	33,000,000	33,000,000	(50,847)	32,949,153	2,537,700	
11	Series E	7.160%	4-Aug-97	4-Aug-27	5,000,000	5,000,000	(7,974)	4,992,026	358,000	
12	Bay State									
13	Notes	6.430%	15-Dec-95	15-Dec-25	10,000,000	10,000,000		10,000,000	643,000	
14	Notes	6.260%	11-Feb-98	15-Feb-28	30,000,000	5,000,000		5,000,000	313,000	
15	Amortization for both Notes					(561,455)	(561,455)	104,316	-	
16	Total Medium Notes				157,000,000	132,000,000	(764,962)	131,235,038	155,385	10,044,800
17	Senior Notes:									
18	NiSource Inc.									
19	Notes	0.950%	18-Aug-20	15-Aug-25	1,250,000,000	1,250,000,000	(11,014,031)	1,238,985,969	11,875,000	
20	Notes	3.490%	22-May-17	15-May-27	1,000,000,000	1,000,000,000	(5,776,482)	994,223,518	34,900,000	
21	Notes	6.780%	1-Dec-97	1-Dec-27	3,000,000	3,000,000	(9,545)	2,990,455	203,400	
22	Notes	2.950%	12-Aug-19	1-Sep-29	750,000,000	750,000,000	(6,365,333)	743,634,667	22,125,000	
23	Notes	3.600%	13-Apr-20	1-May-30	1,000,000,000	1,000,000,000	(10,961,820)	989,038,180	36,000,000	
24	Notes	1.700%	18-Aug-20	15-Feb-31	750,000,000	750,000,000	(6,438,352)	743,561,648	12,750,000	
25	Notes	6.250%	8-Dec-10	15-Dec-40	250,000,000	152,602,000	(2,145,839)	150,456,161	9,537,625	
26	Notes	5.950%	10-Jun-11	15-Jun-41	400,000,000	347,397,000	(2,760,298)	344,636,702	20,670,122	
27	Notes	5.800%	23-Nov-11	1-Feb-42	250,000,000	250,000,000	(1,880,165)	248,119,835	14,500,000	
28	Notes	5.250%	14-Jun-12	15-Feb-43	500,000,000	500,000,000	(3,598,942)	496,401,058	26,250,000	
29	Notes	4.800%	12-Apr-13	15-Feb-44	750,000,000	750,000,000	(7,220,270)	742,779,730	36,000,000	
30	Notes	5.650%	10-Oct-13	1-Feb-45	500,000,000	500,000,000	(5,834,097)	494,165,903	28,250,000	
31	Notes	4.375%	22-May-17	15-May-47	1,000,000,000	1,000,000,000	(12,140,431)	987,859,569	43,750,000	
32	Notes	3.950%	14-Sep-17	30-Mar-48	750,000,000	750,000,000	(7,948,229)	742,051,771	29,625,000	
33	Total Senior Notes				9,153,000,000	9,002,999,000	(84,093,834)	8,918,905,166	7,951,140	326,436,147

WITNESS

[illegible]

SCHEDULE D-3B
PAGE 1 OF 2
3 RESPONSIBLE:
P.R. MOUL

ANNUAL
INTEREST
COST
(I=H+G)

485,142
646,856
485,142
2,331,522

743,000
1,543,004
2,545,956
359,248

643,000
313,000
104,316

10,200,185

14,416,700
35,849,559
204,814
22,888,840
37,217,980
13,404,748
9,646,735
20,806,996
14,590,248
26,414,837
36,316,216
28,494,787
44,215,448
29,919,379

334,387,287

SCHEDULE D-3B
PAGE 2 OF 2
3 RESPONSIBLE:
P.R. MOUL

ANNUAL
INTEREST
COST
(I=H+G)

344,587,472

3,223,500
2,695,220
5,588,756
1,860,502
4,318,160
29,455,147
8,341,698

55,482,983

1,051,503
363,097
5,558,433
1,151,423
9,991
1,099,584

9,234,031

\$ 409,304,486

4.63%

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF PREFERRED STOCK

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S).:

SCHEDULE D-4A
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DIVIDEND RATE, TYPE, PAR VALUE	DATE ISSUED (A)	AMOUNT OUTSTANDING (B)	PREMIUM OR DISCOUNT (C)	ISSUE EXPENSE (D)	GAIN OR LOSS ON REACQUIRED STOCK (E)	NET PROCEEDS (F=B+C-D+E)	COST RATE AT ISSUE (G)	ANNUALIZED DIVIDENDS (H=G*B)
-------------	-----------------------------------	-----------------------	------------------------------	-------------------------------	-------------------------	---	--------------------------------	------------------------------	------------------------------------

Columbia Gas of Ohio, Inc. does not have any preferred stock outstanding.

NISOURCE INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF PREFERRED STOCK

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S):

SCHEDULE D-4B
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DIVIDEND RATE, TYPE, PAR VALUE	DATE ISSUED (A)	AMOUNT OUTSTANDING (B)	PREMIUM OR DISCOUNT (C)	NET PROCEEDS (D=B+C)	COST RATE AT ISSUE (E)	ANNUALIZED DIVIDENDS (F=E*B)
	NiSource Inc.						
	Series A	11-Jun-18	400,000,000	(6,100,000)	393,900,000	5.65%	22,600,000
	Series B	5-Dec-18	500,000,000	(13,900,000)	486,100,000	6.50%	32,500,000
	Total Preferred Stock		900,000,000	(20,000,000)	880,000,000		55,100,000
	Embedded Cost of Long-Term Debt (F / D)						<u>6.26%</u>

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021

TYPE OF FILING: ORIGINAL

WORK PAPER REFERENCE NO(S):: See Below

SCHEDULE D-5A

PAGE 1 OF 5

WITNESS RESPONSIBLE:

P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
1	PLANT DATA (\$000 omitted):											
2	<u>Gas Plant</u>											
3	Intangible	179,022	145,764	143,535	128,053	128,058	113,618	113,932	114,040	44,444	42,199	33,062
4	Production-Mfg. Gas	-	-	-	-	-	-	-	-	-	-	-
5	Underground Storage	-	-	-	-	-	-	-	-	-	-	-
6	Storage-Local	-	-	-	-	-	-	-	-	-	-	-
7	Transmission	-	-	-	-	-	-	-	-	-	-	-
8	Distribution	5,018,579	4,963,207	4,622,643	4,246,723	3,954,365	3,666,807	3,355,529	3,052,431	2,815,566	2,576,267	2,357,744
9	General	76,353	75,648	72,657	75,188	74,714	71,542	74,250	71,030	47,202	46,734	46,225
10	Total Gas Plant-Gross	5,273,954	5,184,619	4,838,835	4,449,964	4,157,137	3,851,967	3,543,711	3,237,501	2,907,212	2,665,200	2,437,031
11	Less: Accum. Provision for Depr. and Amort.	1,334,920	1,272,605	1,190,593	1,108,803	1,030,911	977,045	945,063	883,979	855,869	826,003	793,530
12	Gas Plant in Service-Net	3,939,034	3,912,014	3,648,242	3,341,161	3,126,226	2,874,922	2,598,648	2,353,522	2,051,343	1,839,197	1,643,501
13												
14	<u>Electric Plant</u>											
15	Intangible	-	-	-	-	-	-	-	-	-	-	-
16	Production Plant-Steam	-	-	-	-	-	-	-	-	-	-	-
17	Production Plant-Hydro	-	-	-	-	-	-	-	-	-	-	-
18	Production Plant-Other	-	-	-	-	-	-	-	-	-	-	-
19	Transmission	-	-	-	-	-	-	-	-	-	-	-
20	Distribution	-	-	-	-	-	-	-	-	-	-	-
21	General	-	-	-	-	-	-	-	-	-	-	-
22	Total Electric Plant-Gross	-	-	-	-	-	-	-	-	-	-	-
23	Less: Accum. Provision for Depr. and Amort.	-	-	-	-	-	-	-	-	-	-	-
24	Electric Plant in Service-Net	-	-	-	-	-	-	-	-	-	-	-
25												
26	<u>Common Plant</u>											
27	Common Plant	-	-	-	-	-	-	-	-	-	-	-
28	Less: Accum. Provision for Depr. and Amort.	-	-	-	-	-	-	-	-	-	-	-
29	Common Plant in Service-Net	-	-	-	-	-	-	-	-	-	-	-
30												
31	Plant Held for Future Use	68	68	68	68	68	68	68	68	68	68	68
32												
33	Acquisition Adjustments	-	-	-	-	-	-	-	-	-	-	-
34												
35	Construction Work in Progress	117,918	86,130	56,802	56,969	40,306	30,550	23,215	14,875	38,828	38,123	23,614
36												
37	Net Utility Plant	4,057,020	3,998,212	3,705,111	3,398,198	3,166,600	2,905,540	2,621,931	2,368,465	2,090,238	1,877,387	1,667,183
38												
39	Composite depreciation rates											
40	Columbia Gas of Ohio, Inc. - Gas (%)	2.30%	2.34%	2.32%	2.35%	2.34%	2.33%	2.29%	2.32%	2.38%	2.37%	2.34%

[illegible]

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S):: See Below

SCHEDULE D-5A
PAGE 3 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
1	STOCK AND BOND RATINGS:											
2												
3	FIXED CHARGE COVERAGE:											
4	Pre-tax interest coverage	6.16	4.44	4.03	8.14	7.37	10.49	9.83	7.59	6.92	6.37	6.21
5	Pre-tax interest coverage (excluding AFUDC)	4.46	3.33	3.06	3.24	3.03	4.00	4.76	4.45	4.40	4.15	4.91
6	After tax interest coverage	5.23	3.85	3.70	11.60	5.23	7.22	6.69	5.22	4.79	4.44	4.58
7	Indenture provision coverage	-	-	-	-	-	-	-	-	-	-	-
8	Fixed charge coverage	4.24	2.87	2.71	10.61	4.25	6.15	5.55	4.22	3.86	3.80	3.24
9												
10	Percentage of Construction Expenditures											
11	Financed Internally	563.93	71.55	56.23	152.29	-83.72	98.04	66.60	81.30	75.86	141.23	57.39

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S):: See Below

SCHEDULE D-5A
PAGE 4 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
1	COMMON STOCK RELATED DATA: (a)											
2	Shares outstanding - year end (000)											
3	Shares outstanding - weighted average											
4	(monthly) (000)											
5	Earnings per share - weighted average (\$)											
6	Earnings per share - weighted											
7	average - assuming dilution (\$)											
8	Dividends paid per share (\$)											
9	Dividends declared per share (\$)											
10	Dividend pay out ratio (declared basis) (%)											
11	Market price - High-Low (\$)											
12	1st quarter - High											
13	- Low											
14	2nd quarter - High											
15	- Low											
16	3rd quarter - High											
17	- Low											
18	4th quarter - High											
19	- Low											
20	Book value per share (year-end) (\$)											
21												
22	RATE OF RETURN MEASURES:											
23	Return on common equity (average) (%)	2.92	9.03	9.00	18.22	8.62	11.91	13.11	13.16	12.31	11.96	14.78
24	Return on total capital (average) (%)	1.47	4.66	4.83	9.67	4.38	6.04	6.84	6.83	6.34	6.63	8.58
25	Return on net plant in service (average) - Total Company %	1.90	6.09	6.07	6.01	5.53	7.00	7.99	8.29	8.14	7.96	12.40

NOT APPLICABLE

SCHEDULE D-5A
PAGE 5 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

[illegible]

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B
PAGE 1 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	PLANT DATA (\$000 omitted):						
2	<u>Gas Plant</u>						
3	Intangible						
4	Production-Mfg. Gas						
5	Underground Storage						
6	Storage-Local						
7	Transmission						
8	Distribution						
9	General						
10	Total Gas Plant-Gross	14,248,973	14,010,200	14,989,700	13,776,000	12,531,000	11,556,600
11	Less: Accum. Provision for Depr. and Amort.	3,349,456	3,292,900	3,556,000	3,373,800	3,227,800	3,119,200
12	Gas Plant in Service-Net	10,899,517	10,717,300	11,433,700	10,402,200	9,303,200	8,437,400
13							
14	<u>Electric Plant</u>						
15	Intangible						
16	Production Plant-Steam						
17	Production Plant-Hydro						
18	Production Plant-Other						
19	Transmission						
20	Distribution						
21	General						
22	Total Electric Plant-Gross	7,501,045	6,478,000	8,902,300	8,374,200	7,403,800	7,043,300
23	Less: Accum. Provision for Depr. and Amort.	2,341,765	2,305,000	3,973,800	3,809,500	3,673,200	3,442,000
24	Electric Plant in Service-Net	5,159,279	4,173,000	4,928,500	4,564,700	3,730,600	3,601,300
25							
26	<u>Corporate Plant</u>						
27	Corporate Plant	216,934	197,300	153,300	155,800	141,300	105,000
28	Less: Accum. Provision for Depr. and Amort.	115,239	109,300	79,500	74,600	52,600	52,500
29	Corporate Plant in Service-Net	101,695	88,000	73,800	81,200	88,700	52,500
30							
31	Plant Held for Future Use	-	-	-	-	-	-
32							
33	Acquisition Adjustments	-	-	-	-	-	-
34							
35	Construction Work in Progress	676,210	572,600	457,300	474,800	950,500	663,100
36							
37	Net Utility Plant	16,836,701	15,550,900	16,893,300	15,522,900	14,073,000	12,754,300
38							
39	Composite depreciation rates						
40	NiSource, Inc. - Gas (%)	2.30%	2.30%	2.50%	2.20%	2.10%	2.10%
41	NiSource, Inc. - Electric (%)	3.40%	3.40%	2.80%	2.90%	3.40%	3.30%

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B
PAGE 2 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	CAPITAL STRUCTURE:						
2	Total debt (\$000)	8,848,961	9,243,100	7,869,600	7,155,400	7,796,500	6,421,300
3	Preferred trust securities (\$000)	-	-	-	-	-	-
4	Preferred stock (\$000)	880,000	880,000	880,000	880,000	-	-
5	Common equity (\$000)	5,145,676	4,957,800	5,106,700	4,870,900	4,320,100	4,071,200
6	CONDENSED INCOME STATEMENT DATA:						
7	Operating revenues (\$000,000)	N/A	4,681.7	5,208.9	5,114.5	4,874.6	4,492.5
8	Operating expenses (excluding FIT and SIT) (\$000,000)	N/A	4,130.9	4,318.2	4,989.8	3,953.4	3,626.4
9	Operating income (\$000,000)	N/A	550.8	890.7	124.7	921.2	866.1
10	Total income taxes (\$000,000)	N/A	(17.1)	123.5	(180.0)	314.5	182.1
11	AFUDC - Debt and Equity (\$000,000)	N/A	(7.0)	(7.5)	(9.1)	(6.2)	(5.6)
12	Other income - net (\$000,000)	N/A	32.1	(5.2)	43.5	(13.5)	(3.0)
13	Extraordinary item (\$000,000)	N/A	0.0	0.0	0.0	0.0	0.0
14	Net income (\$000,000)	N/A	(72.7)	328.0	(65.6)	128.5	331.5
15	Net income applicable to Common Stock (\$000,000)	N/A	(72.7)	328.0	(65.6)	128.5	331.5
16	INCOME AVAILABLE FOR FIXED CHARGES:						
17	Interest charges (\$000)	N/A	370,700	378,900	353,300	353,200	349,500
18	Net income before preferred dividend requirements of subsidiaries (\$000)	N/A	(17,600)	383,100	(50,600)	128,500	331,500
19	Preferred dividend requirements of subsidiaries (\$000)	N/A	55,100	55,100	15,000	-	-
20	Cost of reacquisition of Preferred Stock (\$000)	N/A	-	-	-	-	-
21	Earnings available for common equity (\$000)	N/A	(72,700)	328,000	(65,600)	128,500	331,500
22	AFUDC - % of net income before preferred dividend requirements of subsidiaries	N/A	39.77	(1.96)	17.98	(4.82)	(1.69)
23	AFUDC - % of earnings available for common equity	N/A	9.63	(2.29)	13.87	(4.82)	(1.69)
24	COST OF CAPITAL:						
25	Embedded cost of long-term debt (%)	4.63%	4.63%	4.55%	4.72%	4.96%	5.51%
26	Embedded cost of preferred stock (%)	6.26%	6.26%	6.26%	6.26%	0.00%	0.00%

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B
PAGE 3 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	STOCK AND BOND RATINGS:	Baa2	Baa2	Baa2	Baa2	Baa2	Baa2
2							
3	FIXED CHARGE COVERAGE:						
4	Pre-tax interest coverage	N/A	1.57	2.34	0.48	2.57	2.47
5	Pre-tax interest coverage (excluding AFUDC)	N/A	1.54	2.29	0.46	2.53	2.43
6	After tax interest coverage	N/A	1.62	2.01	0.99	1.68	1.95
7	Indenture provision coverage	N/A	-	-	-	-	-
8	Fixed charge coverage	N/A	(0.04)	0.88	(0.14)	0.36	0.95
9							
10	Percentage of Construction Expenditures						
11	Financed Internally	N/A	18.08	48.07	16.02	-44.15	55.91

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B
PAGE 4 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	COMMON STOCK RELATED DATA:						
2	Shares outstanding - year end (000)	N/A	384,300	376,000	356,500	329,400	321,800
3	Shares outstanding - weighted average						
4	(monthly) (000)	N/A	384,300	374,600	356,500	329,400	321,800
5	Earnings per share - weighted average (\$)	N/A	-1.9	8.80	-1.80	3.90	10.03
6	Earnings per share - weighted	N/A					
7	average - assuming dilution (\$)	N/A	-1.90	8.70	-1.80	3.90	10.20
8	Dividends paid per share (\$)	0.22	0.84	0.80	0.78	0.70	0.64
9	Dividends declared per share (\$)	0.44	0.84	0.80	0.78	0.70	0.64
10	Dividend pay out ratio (declared basis) (%)	N/A	-444.03%	91.37%	-423.89%	179.44%	62.13%
11	Market price - High-Low (\$)						
12	1st quarter - High	24.36	30.21	28.82	25.36	24.09	23.56
13	- Low	21.26	20.86	25.07	22.51	21.84	19.46
14	2nd quarter - High	N/A	26.85	29.44	26.28	26.44	26.52
15	- Low	N/A	22.33	27.30	23.27	23.66	22.13
16	3rd quarter - High	N/A	24.81	30.56	28.08	27.23	26.77
17	- Low	N/A	21.39	27.63	24.56	25.17	23.23
18	4th quarter - High	N/A	25.07	29.73	27.62	27.58	23.62
19	- Low	N/A	21.53	26.04	24.31	24.66	21.41
20	Book value per share (year-end) (\$)	N/A	13.12	13.63	13.66	13.12	12.65
21							
22	RATE OF RETURN MEASURES:						
23	Return on common equity (average) (%)	N/A	(1.44)	6.57	(1.43)	3.06	8.38
24	Return on total capital (average) (%)	N/A	(0.50)	2.45	(0.52)	1.14	3.20
25	Return on net plant in service (average) - Total Company %	N/A	3.40	5.50	0.84	6.87	6.97

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: ORIGINAL
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B
PAGE 5 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	<u>Other Financial and Operating Data:</u>						
2	Mix of Sales (\$000)						
3	Gas revenues	N/A	3,128,100	3,509,700	3,406,400	3,087,900	2,818,200
4	Electric revenues	N/A	1,535,900	1,698,400	1,707,400	1,785,700	1,660,800
5	Other	N/A	17,700	800	700	1,000	13,500
6	Total	N/A	<u>4,681,700</u>	<u>5,208,900</u>	<u>5,114,500</u>	<u>4,874,600</u>	<u>4,492,500</u>
7	Mix of Sales (%)						
8	Gas	N/A	66.82%	67.38%	66.60%	63.35%	62.73%
9	Electric	N/A	32.81%	32.61%	33.38%	36.63%	36.97%
10	Other	N/A	0.38%	0.02%	0.01%	0.02%	0.30%
11	Total	N/A	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>
12	Mix of Fuel (\$000)						
13	Gas	N/A	794,200	1,067,600	1,259,300	1,005,000	895,400
14	Electric	N/A	315,200	467,300	502,100	513,900	495,000
15	Other	N/A	-	-	-	-	-
16	Total	N/A	<u>1,109,400</u>	<u>1,534,900</u>	<u>1,761,400</u>	<u>1,518,900</u>	<u>1,390,400</u>
17	Mix of Fuel (%)						
18	Gas	N/A	71.59%	69.56%	71.49%	66.17%	64.40%
19	Electric	N/A	28.41%	30.44%	28.51%	33.83%	35.60%
20	Other	N/A	0.00%	0.00%	0.00%	0.00%	0.00%
21	Total	N/A	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

WPD-1.1

Average
DCF + CAPM
8.96 from DCF tab
9.46 9.46%
9.96

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Embedded Cost of Long-Term Debt
As of March 31, 2021

Schedule D-1.2
Page 1 of 1

Line No.	Description	Date Issued (Mo/Day/Yr)	Maturity Date (Mo/Day/Yr)	Principal Amount	Face Amount Outstanding	Unamort (Discount) or Premium	Unamort Debt Expense	Unamort Gain or (Loss) On Reacquired Debt	Carrying Value	Annual Interest Cost ¹
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J) = (F)+(G)-(H)+(I)	(K)
1	<u>First Mortgage Bonds:</u>									
2										
3										
4	Fixed Rate 3.20%	7/31/2020	7/31/2040	\$ 140,000,000	\$ 140,000,000		\$ 400,000		\$ 139,600,000	\$ 4,500,000
5	Fixed Rate 3.95%	6/6/2019	6/15/2049	\$ 425,000,000	\$ 425,000,000	\$ (2,642,260)	\$ 5,408,076	\$ (8,551,441)	\$ 408,398,223	\$ 19,852,855
6										
7	Subtotal			\$ 565,000,000	\$ 565,000,000	\$ (2,642,260)	\$ 5,808,076	\$ (8,551,441)	\$ 547,998,223	\$ 24,352,855
8										
9	<u>Other Long-Term Debt:</u>									
10										
11	WPAFB Loan			\$ 17,965,335	\$ 17,436,623	\$ -	\$ -	\$ -	\$ 17,436,623	\$ 732,338
12										
13	TOTALS				\$ 582,436,623	\$ (2,642,260)	\$ 5,808,076	\$ (8,551,441)	\$ 565,434,846	\$ 25,085,193
14										
15	EMBEDDED COST OF LONG-TERM DEBT									4.436%
16										
17	EMBEDDED COST OF LONG-TERM DEBT (excluding WPAFB Loan) ²									4.444%

¹ Annualized interest expense plus (or minus) amortization of discount or premium plus amortization of issue costs minus (or plus) amortization of gain (or loss) on reacquired debt.

² Equals Line 7 Column K / Column J

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Historical View		
	Date	Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
1	9/1/1991	7.47	7.82
2	10/1/1991	7.47	7.91
3	11/1/1991	7.38	7.94
4	12/1/1991	6.71	7.41
5	1/1/1992	7.31	7.77
6	2/1/1992	7.27	7.8
7	3/1/1992	7.54	7.96
8	4/1/1992	7.61	8.06
9	5/1/1992	7.33	7.84
10	6/1/1992	7.14	7.79
11	7/1/1992	6.72	7.46
12	8/1/1992	6.62	7.42
13	9/1/1992	6.37	7.38
14	10/1/1992	6.8	7.63
15	11/1/1992	6.95	7.59
16	12/1/1992	6.7	7.4
17	1/1/1993	6.39	7.21
18	2/1/1993	6.03	6.9
19	3/1/1993	6.03	6.93
20	4/1/1993	6.05	6.95
21	5/1/1993	6.16	6.98
22	6/1/1993	5.8	6.68
23	7/1/1993	5.83	6.57
24	8/1/1993	5.45	6.09
25	9/1/1993	5.4	6.04
26	10/1/1993	5.388	5.965
27	11/1/1993	5.795	6.286
28	12/1/1993	5.783	6.339
29	1/1/1994	5.638	6.224
30	2/1/1994	6.15	6.671
31	3/1/1994	6.774	7.125
32	4/1/1994	7.035	7.302
33	5/1/1994	7.152	7.435
34	6/1/1994	7.329	7.612
35	7/1/1994	7.095	7.379
36	8/1/1994	7.165	7.441

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Historical View		
	Date	Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
37	9/1/1994	7.599	7.819
38	10/1/1994	7.793	7.962
39	11/1/1994	7.888	7.977
40	12/1/1994	7.827	7.87
41	1/1/1995	7.593	7.69
42	2/1/1995	7.21	7.445
43	3/1/1995	7.189	7.43
44	4/1/1995	7.046	7.333
45	5/1/1995	6.286	6.644
46	6/1/1995	6.203	6.624
47	7/1/1995	6.429	6.855
48	8/1/1995	6.273	6.645
49	9/1/1995	6.157	6.482
50	10/1/1995	6.003	6.317
51	11/1/1995	5.745	6.132
52	12/1/1995	5.575	5.949
53	1/1/1996	5.581	6.023
54	2/1/1996	6.112	6.492
55	3/1/1996	6.334	6.679
56	4/1/1996	6.633	6.877
57	5/1/1996	6.844	6.991
58	6/1/1996	6.711	6.898
59	7/1/1996	6.79	6.966
60	8/1/1996	6.936	7.107
61	9/1/1996	6.699	6.923
62	10/1/1996	6.349	6.65
63	11/1/1996	6.04	6.352
64	12/1/1996	6.407	6.635
65	1/1/1997	6.503	6.797
66	2/1/1997	6.535	6.787
67	3/1/1997	6.907	7.101
68	4/1/1997	6.702	6.951
69	5/1/1997	6.663	6.913
70	6/1/1997	6.502	6.794
71	7/1/1997	6.004	6.294
72	8/1/1997	6.33	6.601
73	9/1/1997	6.107	6.407

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Date	Historical View	
		Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
74	10/1/1997	5.819	6.144
75	11/1/1997	5.851	6.036
76	12/1/1997	5.739	5.925
77	1/1/1998	5.512	5.805
78	2/1/1998	5.616	5.918
79	3/1/1998	5.662	5.937
80	4/1/1998	5.667	5.946
81	5/1/1998	5.546	5.8
82	6/1/1998	5.434	5.618
83	7/1/1998	5.494	5.717
84	8/1/1998	5.032	5.291
85	9/1/1998	4.41	4.976
86	10/1/1998	4.603	5.143
87	11/1/1998	4.726	5.07
88	12/1/1998	4.638	5.084
89	1/1/1999	4.653	5.086
90	2/1/1999	5.272	5.553
91	3/1/1999	5.234	5.621
92	4/1/1999	5.35	5.673
93	5/1/1999	5.611	5.823
94	6/1/1999	5.81	5.988
95	7/1/1999	5.907	6.104
96	8/1/1999	5.979	6.066
97	9/1/1999	5.885	6.056
98	10/1/1999	6.003	6.149
99	11/1/1999	6.163	6.281
100	12/1/1999	6.435	6.477
101	1/1/2000	6.667	6.491
102	2/1/2000	6.409	6.133
103	3/1/2000	6.023	5.846
104	4/1/2000	6.214	5.962
105	5/1/2000	6.285	6.017
106	6/1/2000	6.018	5.881
107	7/1/2000	6.029	5.78
108	8/1/2000	5.729	5.674
109	9/1/2000	5.778	5.869
110	10/1/2000	5.757	5.784
111	11/1/2000	5.439	5.586
112	12/1/2000	5.11	5.459
113	1/1/2001	5.179	5.536
114	2/1/2001	4.908	5.337

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Historical View		
	Date	Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
115	3/1/2001	4.915	5.453
116	4/1/2001	5.338	5.772
117	5/1/2001	5.413	5.779
118	6/1/2001	5.39	5.736
119	7/1/2001	5.037	5.502
120	8/1/2001	4.816	5.368
121	9/1/2001	4.575	5.415
122	10/1/2001	4.263	4.873
123	11/1/2001	4.744	5.265
124	12/1/2001	5.032	5.478
125	1/1/2002	5.025	5.426
126	2/1/2002	4.859	5.409
127	3/1/2002	5.406	5.815
128	4/1/2002	5.091	5.594
129	5/1/2002	5.043	5.612
130	6/1/2002	4.824	5.517
131	7/1/2002	4.465	5.305
132	8/1/2002	4.137	4.937
133	9/1/2002	3.607	4.662
134	10/1/2002	3.911	5.007
135	11/1/2002	4.213	5.048
136	12/1/2002	3.818	4.783
137	1/1/2003	3.975	4.847
138	2/1/2003	3.696	4.676
139	3/1/2003	3.823	4.837
140	4/1/2003	3.857	4.778
141	5/1/2003	3.35	4.362
142	6/1/2003	3.528	4.566
143	7/1/2003	4.474	5.41
144	8/1/2003	4.454	5.224
145	9/1/2003	3.937	4.884
146	10/1/2003	4.301	5.145
147	11/1/2003	4.32	5.126
148	12/1/2003	4.257	5.068
149	1/1/2004	4.138	4.965
150	2/1/2004	3.984	4.857
151	3/1/2004	3.837	4.777
152	4/1/2004	4.501	5.282
153	5/1/2004	4.655	5.348
154	6/1/2004	4.617	5.313
155	7/1/2004	4.475	5.205

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Historical View		
	Date	Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
156	8/1/2004	4.132	4.938
157	9/1/2004	4.119	4.891
158	10/1/2004	4.029	4.794
159	11/1/2004	4.358	5.012
160	12/1/2004	4.216	4.822
161	1/1/2005	4.133	4.59
162	2/1/2005	4.359	4.706
163	3/1/2005	4.496	4.766
164	4/1/2005	4.201	4.519
165	5/1/2005	4.006	4.347
166	6/1/2005	3.945	4.219
167	7/1/2005	4.286	4.474
168	8/1/2005	4.02	4.261
169	9/1/2005	4.328	4.568
170	10/1/2005	4.559	4.755
171	11/1/2005	4.5	4.703
172	12/1/2005	4.395	4.547
173	1/1/2006	4.527	4.685
174	2/1/2006	4.547	4.503
175	3/1/2006	4.853	4.893
176	4/1/2006	5.069	5.169
177	5/1/2006	5.113	5.207
178	6/1/2006	5.138	5.186
179	7/1/2006	4.988	5.07
180	8/1/2006	4.732	4.878
181	9/1/2006	4.633	4.767
182	10/1/2006	4.606	4.719
183	11/1/2006	4.458	4.561
184	12/1/2006	4.71	4.818
185	1/1/2007	4.826	4.926
186	2/1/2007	4.55	4.669
187	3/1/2007	4.648	4.848
188	4/1/2007	4.63	4.817
189	5/1/2007	4.89	5.011
190	6/1/2007	5.033	5.126
191	7/1/2007	4.771	4.922
192	8/1/2007	4.537	4.831
193	9/1/2007	4.579	4.833
194	10/1/2007	4.475	4.751
195	11/1/2007	3.972	4.403
196	12/1/2007	4.035	4.459

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Date	Historical View	
		Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
197	1/1/2008	3.639	4.354
198	2/1/2008	3.534	4.421
199	3/1/2008	3.432	4.306
200	4/1/2008	3.759	4.497
201	5/1/2008	4.046	4.707
202	6/1/2008	3.979	4.531
203	7/1/2008	3.979	4.603
204	8/1/2008	3.813	4.412
205	9/1/2008	3.827	4.305
206	10/1/2008	3.97	4.369
207	11/1/2008	2.957	3.487
208	12/1/2008	2.244	2.691
209	1/1/2009	2.844	3.603
210	2/1/2009	3.041	3.722
211	3/1/2009	2.685	3.561
212	4/1/2009	3.124	4.044
213	5/1/2009	3.465	4.338
214	6/1/2009	3.523	4.311
215	7/1/2009	3.501	4.311
216	8/1/2009	3.401	4.181
217	9/1/2009	3.307	4.048
218	10/1/2009	3.392	4.236
219	11/1/2009	3.201	4.194
220	12/1/2009	3.843	4.641
221	1/1/2010	3.609	4.51
222	2/1/2010	3.595	4.529
223	3/1/2010	3.833	4.715
224	4/1/2010	3.663	4.527
225	5/1/2010	3.301	4.214
226	6/1/2010	2.951	3.909
227	7/1/2010	2.907	3.977
228	8/1/2010	2.477	3.533
229	9/1/2010	2.517	3.687
230	10/1/2010	2.612	4
231	11/1/2010	2.797	4.102
232	12/1/2010	3.305	4.362
233	1/1/2011	3.378	4.571
234	2/1/2011	3.414	4.49
235	3/1/2011	3.454	4.508
236	4/1/2011	3.296	4.406
237	5/1/2011	3.05	4.216

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Date	Historical View	
		Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
238	6/1/2011	3.158	4.382
239	7/1/2011	2.805	4.132
240	8/1/2011	2.218	3.592
241	9/1/2011	1.924	2.921
242	10/1/2011	2.175	3.199
243	11/1/2011	2.068	3.062
244	12/1/2011	1.871	2.889
245	1/1/2012	1.799	2.934
246	2/1/2012	1.977	3.086
247	3/1/2012	2.216	3.345
248	4/1/2012	1.915	3.109
249	5/1/2012	1.581	2.672
250	6/1/2012	1.659	2.763
251	7/1/2012	1.492	2.577
252	8/1/2012	1.562	2.684
253	9/1/2012	1.637	2.834
254	10/1/2012	1.686	2.851
255	11/1/2012	1.606	2.794
256	12/1/2012	1.756	2.952
257	1/1/2013	1.985	3.17
258	2/1/2013	1.888	3.094
259	3/1/2013	1.852	3.104
260	4/1/2013	1.675	2.884
261	5/1/2013	2.164	3.308
262	6/1/2013	2.478	3.498
263	7/1/2013	2.593	3.646
264	8/1/2013	2.749	3.676
265	9/1/2013	2.615	3.686
266	10/1/2013	2.542	3.631
267	11/1/2013	2.741	3.808
268	12/1/2013	3.026	3.964
269	1/1/2014	2.668	3.622
270	2/1/2014	2.658	3.592
271	3/1/2014	2.723	3.561

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Date	Historical View	
		Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
272	4/1/2014	2.648	3.458
273	5/1/2014	2.457	3.314
274	6/1/2014	2.516	3.338
275	7/1/2014	2.556	3.311
276	8/1/2014	2.343	3.08
277	9/1/2014	2.508	3.212
278	10/1/2014	2.335	3.06
279	11/1/2014	2.194	2.91
280	12/1/2014	2.17	2.749
281	1/1/2015	1.675	2.251
282	2/1/2015	2.002	2.6
283	3/1/2015	1.934	2.544
284	4/1/2015	2.046	2.753
285	5/1/2015	2.095	2.847
286	6/1/2015	2.335	3.104
287	7/1/2015	2.205	2.927
288	8/1/2015	2.2	2.931
289	9/1/2015	2.06	2.88
290	10/1/2015	2.151	2.933
291	11/1/2015	2.218	2.99
292	12/1/2015	2.269	3.015
293	1/1/2016	1.931	2.758
294	2/1/2016	1.74	2.615
295	3/1/2016	1.786	2.62
296	4/1/2016	1.819	2.666

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Date	Historical View	
		Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
297	5/1/2016	1.834	2.629
298	6/1/2016	1.488	2.307
299	7/1/2016	1.458	2.182
300	8/1/2016	1.568	2.231
301	9/1/2016	1.608	2.336
302	10/1/2016	1.834	2.589
303	11/1/2016	2.368	3.017
304	12/1/2016	2.446	3.063
305	1/1/2017	2.451	3.051
306	2/1/2017	2.358	2.968
307	3/1/2017	2.396	3.018
308	4/1/2017	2.282	2.952
309	5/1/2017	2.196	2.857
310	6/1/2017	2.302	2.84
311	7/1/2017	2.292	2.898
312	8/1/2017	2.121	2.725
313	9/1/2017	2.326	2.857
314	10/1/2017	2.376	2.875
315	11/1/2017	2.417	2.832
316	12/1/2017	2.405	2.739
317	1/1/2018	2.72	2.942
318	2/1/2018	2.868	3.127
319	3/1/2018	2.741	2.972
320	4/1/2018	2.936	3.097
321	5/1/2018	2.822	2.986
322	6/1/2018	2.849	2.983
323	7/1/2018	2.964	3.083
324	8/1/2018	2.853	3.01
325	9/1/2018	3.056	3.197
326	10/1/2018	3.159	3.402
327	11/1/2018	3.013	3.311
328	12/1/2018	2.686	3.02
329	1/1/2019	2.635	3.005
330	2/1/2019	2.711	3.083
331	3/1/2019	2.414	2.822
332	4/1/2019	2.509	2.94
333	5/1/2019	2.142	2.583

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Capital Asset Pricing Model
As of March 31, 2021

Staff Schedule D-1.3

Line No.	Historical View		
	Date	Monthly Yield for 10-Year U.S. Treasury Bonds ¹	Monthly Yield for 30- Year U.S. Treasury Bonds ¹
334	6/1/2019	2	2.528
335	7/1/2019	2.021	2.527
336	8/1/2019	1.506	1.97
337	9/1/2019	1.675	2.121
338	10/1/2019	1.691	2.176
339	11/1/2019	1.776	2.202
340	12/1/2019	1.919	2.389
341	1/1/2020	1.52	2.015
342	2/1/2020	1.127	1.671
343	3/1/2020	0.698	1.351
344	4/1/2020	0.622	1.266
345	5/1/2020	0.648	1.407
346	6/1/2020	0.653	1.409
347	7/1/2020	0.536	1.198
348	8/1/2020	0.693	1.452
349	9/1/2020	0.677	1.451
350	10/1/2020	0.86	1.64
351	11/1/2020	0.844	1.573
352	12/1/2020	0.917	1.646
353	1/1/2021	1.093	1.858
354	2/1/2021	1.46	2.182
355	3/1/2021	1.746	2.425
356	4/1/2021	1.631	2.301
357	5/1/2021	1.581	2.263
358	6/1/2021	1.443	2.065
359	7/1/2021	1.239	1.897
360	8/1/2021	1.255	1.872
361	9/1/2021	1.297	1.916
362		4.065	4.6345
363			
364	Average	4.35	
365			
366	CAPM=RF+B(Market Risk Premium)		
367	Risk Free (RF) =	4.35	
368	Beta	0.80	
369	Market Risk Premium (Fairness Finance)	6.21	
370			
371	CAPM=4.35+.8(6.21)	9.32	

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
DCF Price, Dividend, and Growth Rate
As of March 31, 2021

Staff Schedule D-1.4

Line No.	Date	Stock Prices (\$):						
		AEE	ATO	CNP	CMS	EVRG	OGE	PNW
1	9/14/2020	74.95	90.95	19.04	59.74	50.93	28.77	69.22
2	9/15/2020	75.46	90.00	18.52	59.44	50.52	28.06	69.15
3	9/16/2020	75.89	91.50	19.24	60.25	50.77	28.30	69.42
4	9/17/2020	75.57	91.05	18.80	59.67	50.36	27.97	69.29
5	9/18/2020	74.83	89.66	18.45	59.43	49.14	27.46	67.62
6	9/21/2020	74.60	89.93	18.42	58.35	48.24	27.31	67.99
7	9/22/2020	75.03	91.34	18.43	59.03	48.69	27.57	68.97
8	9/23/2020	73.62	90.51	18.38	57.94	47.39	27.66	68.10
9	9/24/2020	74.68	91.21	18.42	57.95	47.44	27.69	69.86
10	9/25/2020	76.15	92.83	18.50	59.67	48.51	27.90	70.83
11	9/28/2020	76.35	92.63	18.53	59.72	48.56	28.23	70.95
12	9/29/2020	76.94	92.68	18.51	59.44	48.38	28.24	70.52
13	9/30/2020	77.00	93.16	18.86	59.73	49.03	28.55	71.58
14	10/1/2020	77.75	93.04	18.90	60.00	49.03	28.75	72.32
15	10/2/2020	77.71	93.58	19.42	59.98	50.15	29.56	74.76
16	10/5/2020	78.59	92.80	19.67	59.90	50.68	30.49	76.47
17	10/6/2020	79.16	94.52	20.04	61.17	50.56	30.82	77.89
18	10/7/2020	78.56	93.93	20.12	61.29	50.60	30.50	77.65
19	10/8/2020	79.58	94.33	20.77	62.13	51.48	31.16	80.21
20	10/9/2020	79.89	94.06	20.82	62.58	51.06	30.86	79.27
21	10/12/2020	80.36	94.16	21.06	63.30	51.55	30.95	78.31
22	10/13/2020	79.01	92.99	20.29	62.99	51.05	30.01	77.51
23	10/14/2020	79.21	92.63	20.26	63.02	51.56	29.80	77.06
24	10/15/2020	79.01	92.10	20.38	63.00	52.50	30.31	77.66
25	10/16/2020	80.22	92.09	20.32	63.50	52.98	30.42	77.84
26	10/19/2020	79.49	91.85	20.27	62.98	52.67	30.40	78.55
27	10/20/2020	79.97	91.88	20.79	63.24	53.56	31.04	79.05
28	10/21/2020	80.12	93.11	20.98	63.40	53.92	30.49	80.36
29	10/22/2020	80.84	94.18	21.51	63.96	54.58	31.31	82.31
30	10/23/2020	81.19	95.21	21.66	64.05	54.38	31.96	83.28
31	10/26/2020	81.84	95.00	21.56	64.34	53.72	31.73	83.06
32	10/27/2020	81.97	94.60	21.76	63.89	54.40	31.31	82.44
33	10/28/2020	79.22	90.34	20.76	62.22	53.42	29.95	79.47
34	10/29/2020	79.20	89.74	20.93	61.77	53.38	29.84	79.94
35	10/30/2020	78.98	89.34	20.59	61.60	53.25	29.65	79.11
36	11/2/2020	81.02	93.08	20.92	62.59	54.32	30.62	78.62
37	11/3/2020	82.10	95.15	21.23	63.52	54.97	31.33	79.29
38	11/4/2020	81.25	93.16	21.01	62.80	53.80	31.07	79.72
39	11/5/2020	80.30	92.61	22.09	63.08	53.24	30.81	81.93
40	11/6/2020	79.69	91.26	22.28	62.83	53.10	30.53	81.26
41	11/9/2020	80.85	95.31	23.12	64.74	55.94	31.48	85.29
42	11/10/2020	80.29	99.85	23.48	65.69	56.52	32.98	88.16
43	11/11/2020	80.20	98.18	23.45	65.60	55.28	32.72	86.89
44	11/12/2020	79.20	96.21	22.84	63.46	53.75	31.54	85.19
45	11/13/2020	79.96	99.56	23.63	63.70	55.09	32.73	86.76
46	11/16/2020	82.11	98.71	24.45	64.67	55.60	33.44	87.71
47	11/17/2020	78.48	97.51	24.53	62.48	54.57	32.97	84.16
48	11/18/2020	76.98	93.73	23.28	60.20	53.07	32.07	82.16
49	11/19/2020	76.28	92.68	22.97	59.30	52.30	32.27	81.03
50	11/20/2020	76.38	93.24	23.00	59.96	53.10	32.51	80.74
51	11/23/2020	77.21	94.40	23.51	60.14	53.55	32.83	81.93
52	11/24/2020	76.99	97.73	23.88	60.99	54.36	33.50	83.19
53	11/25/2020	78.46	96.88	24.03	61.38	54.73	33.38	83.91
54	11/27/2020	76.91	94.96	23.59	60.67	54.33	32.43	81.41
55	11/30/2020	75.73	94.05	22.73	60.24	53.98	31.22	79.38

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
DCF Price, Dividend, and Growth Rate
As of March 31, 2021

Staff Schedule D-1.4

Line No.	Date	Stock Prices (\$):						
		AEE	ATO	CNP	CMS	EVRG	OGE	PNW
56	12/1/2020	76.44	94.78	22.38	60.21	54.13	31.51	79.87
57	12/2/2020	76.42	94.34	22.48	60.49	54.65	31.82	80.39
58	12/3/2020	75.86	94.66	22.34	59.66	54.07	31.44	78.94
59	12/4/2020	75.05	95.40	22.41	58.51	53.50	31.69	79.92
60	12/7/2020	76.14	95.38	22.68	59.42	53.70	31.72	80.09
61	12/8/2020	75.72	95.71	22.06	58.93	54.03	31.36	79.35
62	12/9/2020	76.25	95.87	21.79	58.54	54.07	31.62	78.88
63	12/10/2020	75.80	96.28	21.37	58.19	53.68	31.17	78.30
64	12/11/2020	75.93	97.16	21.32	58.13	53.71	30.99	77.32
65	12/14/2020	75.70	97.60	21.21	57.97	53.00	30.92	76.75
66	12/15/2020	77.16	99.72	21.80	58.73	53.25	31.16	77.62
67	12/16/2020	76.45	97.44	21.44	58.00	52.28	30.81	76.28
68	12/17/2020	77.17	97.18	21.45	58.25	52.64	30.38	76.93
69	12/18/2020	77.29	93.28	21.44	57.98	51.97	30.01	76.28
70	12/21/2020	75.55	90.25	20.63	56.78	51.42	29.38	74.96
71	12/22/2020	75.03	90.55	20.41	56.38	51.29	29.58	75.43
72	12/23/2020	74.21	90.26	21.08	56.39	51.42	29.81	75.07
73	12/24/2020	74.95	90.99	21.15	56.93	52.05	30.02	75.52
74	12/28/2020	75.22	91.61	20.99	57.58	52.44	30.25	76.06
75	12/29/2020	75.05	91.37	20.88	57.91	52.57	29.89	76.68
76	12/30/2020	75.44	91.71	21.00	58.65	52.67	30.41	76.72
77	12/31/2020	76.51	93.59	21.21	59.72	54.08	30.70	77.54
78	1/4/2021	74.61	92.22	20.92	58.35	52.36	30.78	76.70
79	1/5/2021	74.25	90.83	21.14	57.31	52.25	30.80	75.39
80	1/6/2021	74.87	91.91	21.52	58.47	53.31	31.73	78.05
81	1/7/2021	72.76	88.04	20.47	56.73	51.86	31.03	75.59
82	1/8/2021	73.51	87.54	20.30	56.46	51.63	31.30	75.42
83	1/11/2021	73.55	85.98	20.38	55.92	51.09	30.87	74.38
84	1/12/2021	72.76	85.93	20.29	55.18	51.52	30.41	74.11
85	1/13/2021	74.00	86.76	20.41	56.55	52.86	30.40	75.58
86	1/14/2021	72.52	85.95	20.44	56.60	51.93	29.98	74.73
87	1/15/2021	72.91	88.30	21.04	57.38	52.90	30.55	76.18
88	1/19/2021	71.54	88.35	21.26	57.02	52.00	30.34	75.65
89	1/20/2021	71.10	88.36	21.06	57.46	52.50	30.61	75.59
90	1/21/2021	70.31	87.73	21.26	56.88	52.20	30.55	75.19
91	1/22/2021	71.43	87.38	21.02	57.18	52.41	30.61	74.76
92	1/25/2021	73.59	88.70	21.24	58.26	52.86	31.05	76.00
93	1/26/2021	73.71	89.20	21.52	57.54	52.16	30.81	75.16
94	1/27/2021	73.60	89.08	20.45	56.09	51.36	29.98	74.01
95	1/28/2021	72.44	86.87	21.15	56.04	52.45	30.22	74.37
96	1/29/2021	71.27	87.29	20.67	55.68	52.34	29.79	73.78
97	2/1/2021	71.39	86.94	20.82	55.97	52.35	30.07	74.71
98	2/2/2021	71.32	86.95	21.08	56.21	52.48	30.49	75.20
99	2/3/2021	71.29	85.38	20.73	55.99	52.25	30.07	75.23
100	2/4/2021	72.46	87.07	21.01	56.09	53.58	30.63	75.55
101	2/5/2021	72.72	87.34	20.98	56.67	53.47	30.67	76.26
102	2/8/2021	71.14	87.37	20.61	55.67	52.82	30.27	75.44
103	2/9/2021	71.80	87.88	20.86	55.81	53.29	30.19	75.16
104	2/10/2021	71.98	90.08	21.04	56.16	53.91	30.94	75.61
105	2/11/2021	71.12	89.29	20.83	55.81	53.31	30.90	75.16
106	2/12/2021	71.82	89.30	20.96	55.61	53.02	30.78	74.70
107	2/16/2021	71.21	89.38	21.11	54.70	53.01	30.87	74.53
108	2/17/2021	71.84	90.65	21.26	55.07	53.38	31.00	75.64
109	2/18/2021	72.62	91.89	21.53	55.85	53.79	30.99	75.66
110	2/19/2021	70.89	92.38	21.16	55.22	52.83	31.15	74.77
111	2/22/2021	69.59	88.28	20.41	54.03	51.06	30.35	73.13

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
DCF Price, Dividend, and Growth Rate
As of March 31, 2021

Staff Schedule D-1.4

Line No.	Date	Stock Prices (\$):						
		AEE	ATO	CNP	CMS	EVRG	OGE	PNW
112	2/23/2021	70.43	88.50	20.52	54.93	52.95	30.64	74.02
113	2/24/2021	69.98	87.55	20.55	53.83	53.14	30.41	71.63
114	2/25/2021	69.99	87.11	19.51	54.31	52.30	28.90	71.61
115	2/26/2021	68.87	83.54	19.20	53.37	52.24	28.57	68.56
116	3/1/2021	70.07	84.67	19.36	54.07	52.57	28.88	70.89
117	3/2/2021	70.48	86.14	19.33	54.13	52.23	29.04	72.28
118	3/3/2021	69.71	87.33	19.21	53.15	52.32	29.37	71.56
119	3/4/2021	69.76	87.78	19.62	53.18	53.40	30.02	73.19
120	3/5/2021	71.41	90.55	20.40	54.62	54.45	30.98	74.81
121	3/8/2021	72.71	90.48	20.55	55.39	55.36	31.30	76.72
122	3/9/2021	73.78	88.21	20.64	55.76	55.62	31.03	76.06
123	3/10/2021	75.23	89.66	21.06	56.31	56.03	31.36	76.93
124	3/11/2021	75.11	88.74	21.03	55.99	55.84	30.60	75.28
125	3/12/2021	76.33	90.26	21.70	56.76	56.74	31.04	76.80
126	3/15/2021	77.83	92.01	22.29	57.70	58.23	32.35	78.84
127	3/16/2021	77.50	92.61	22.16	57.59	58.64	32.23	78.02
128	3/17/2021	77.13	91.26	21.99	57.08	57.43	31.62	77.65
129	3/18/2021	77.55	92.35	21.67	57.24	57.69	31.71	78.02
130	3/19/2021	77.81	92.90	21.98	57.56	58.57	31.50	79.21
131	3/22/2021	76.99	92.36	21.69	57.70	57.68	31.31	78.17
132	3/23/2021	78.97	92.99	21.61	59.71	57.93	31.24	78.34
133	3/24/2021	79.97	94.64	21.48	60.05	58.08	31.25	78.04
134	3/25/2021	80.56	95.85	22.02	60.27	58.86	31.47	78.70
135	3/26/2021	80.43	96.01	21.70	60.10	58.18	31.62	78.65
136	3/29/2021	81.63	97.60	22.37	61.08	59.18	31.99	79.84
137	3/30/2021	80.31	97.64	22.52	60.19	58.41	31.67	79.14
138	3/31/2021	80.34	97.60	22.37	60.39	58.56	31.58	79.76
139	4/1/2021	80.01	97.00	22.37	60.19	58.96	31.83	80.21
140	4/5/2021	80.46	97.37	22.66	60.64	59.65	32.04	81.43
141	4/6/2021	80.47	97.02	22.95	60.87	60.17	31.91	81.70
142	4/7/2021	80.28	96.99	23.07	60.31	60.27	32.20	80.65
143	4/8/2021	80.09	97.08	22.94	59.78	59.91	31.87	80.22
144	4/9/2021	79.52	97.88	22.95	59.64	59.68	31.82	80.17
145	4/12/2021	79.70	98.10	23.05	59.93	59.94	32.01	80.94
146	4/13/2021	81.24	97.84	23.37	60.82	60.13	32.24	81.43
147	4/14/2021	81.58	98.86	23.42	61.33	60.08	32.47	81.89
148	4/15/2021	82.53	100.04	23.75	62.54	61.15	33.00	82.82
149	4/16/2021	83.18	100.53	23.76	63.21	62.26	33.07	83.24
150	4/19/2021	82.74	100.55	23.49	63.25	62.21	33.16	82.59
151	4/20/2021	84.81	103.27	23.93	64.38	63.76	33.24	84.29
152	4/21/2021	84.01	102.08	23.99	63.85	63.56	32.89	83.49
153	4/22/2021	83.74	102.09	23.87	63.63	63.18	32.55	82.81
154	4/23/2021	83.71	102.04	23.83	63.26	62.45	32.56	82.17
155	4/26/2021	83.14	101.11	23.69	63.08	62.50	32.65	81.70
156	4/27/2021	82.40	100.20	23.51	62.46	61.88	32.24	80.50
157	4/28/2021	82.60	99.03	23.64	62.19	62.23	32.81	80.03
158	4/29/2021	83.08	100.89	24.21	63.08	62.40	33.32	81.94
159	4/30/2021	83.77	102.28	24.19	63.51	62.93	33.16	83.83
160	5/3/2021	84.09	102.48	24.12	64.15	63.02	33.09	83.71
161	5/4/2021	84.12	102.24	24.26	64.31	63.21	33.01	83.81
162	5/5/2021	83.29	101.23	23.98	63.33	62.50	33.02	83.68
163	5/6/2021	84.08	102.04	24.08	63.99	62.67	33.62	84.78
164	5/7/2021	83.91	101.70	24.19	63.55	62.78	33.53	85.28
165	5/10/2021	84.76	102.20	24.20	64.46	63.00	33.68	86.91
166	5/11/2021	82.34	100.03	23.66	63.09	61.44	33.02	85.99
167	5/12/2021	81.39	97.99	23.36	62.03	60.51	32.54	82.84

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
DCF Price, Dividend, and Growth Rate
As of March 31, 2021

Staff Schedule D-1.4

Line No.	Date	Stock Prices (\$):						
		AEE	ATO	CNP	CMS	EVRG	OGE	PNW
168	5/13/2021	82.46	99.34	24.17	63.09	61.81	33.44	84.62
169	5/14/2021	82.65	99.19	24.71	63.06	61.65	33.99	85.22
170	5/17/2021	82.35	97.26	24.72	62.55	61.11	33.39	84.61
171	5/18/2021	82.87	97.89	24.39	62.86	61.28	33.13	84.71
172	5/19/2021	83.15	96.87	24.33	62.79	61.74	33.18	84.60
173	5/20/2021	83.44	97.08	24.55	63.30	61.42	33.18	84.54
174	5/21/2021	84.04	97.56	24.56	63.71	62.04	33.30	85.14
175	5/24/2021	83.59	97.81	24.88	63.33	62.14	33.51	85.65
176	5/25/2021	82.67	97.67	24.79	62.82	60.95	33.33	85.24
177	5/26/2021	82.88	98.00	24.96	62.52	60.90	33.95	85.57
178	5/27/2021	82.62	98.53	24.93	61.87	60.83	34.16	83.40
179	5/28/2021	83.14	98.54	25.15	62.31	61.51	34.09	83.76
180	6/1/2021	83.12	98.81	24.96	61.88	60.99	33.84	83.63
181	6/2/2021	84.15	99.83	24.94	61.99	61.32	33.64	84.81
182	6/3/2021	84.48	100.55	25.24	62.24	62.02	33.83	86.12
183	6/4/2021	85.05	100.07	25.25	62.19	62.23	33.92	86.18
184	6/7/2021	85.05	100.33	25.43	62.37	62.19	33.82	86.14
185	6/8/2021	84.22	99.65	25.31	59.92	62.10	33.64	86.02
186	6/9/2021	84.83	100.51	25.62	59.52	62.87	34.07	86.31
187	6/10/2021	85.31	100.58	25.80	59.83	63.51	34.48	87.26
188	6/11/2021	85.25	101.15	25.99	60.25	63.69	35.03	86.83
189	6/14/2021	85.30	100.46	25.83	59.89	63.42	34.84	87.22
190	6/15/2021	85.60	100.32	25.84	60.08	64.02	34.77	87.03
191	6/16/2021	83.39	99.93	25.38	59.26	63.72	34.37	85.15
192	6/17/2021	83.96	99.66	25.19	59.10	63.98	34.11	83.77
193	6/18/2021	81.60	97.26	24.48	57.72	62.05	33.03	80.26
194	6/21/2021	82.87	98.41	24.79	58.13	63.22	33.91	81.83
195	6/22/2021	82.00	97.79	24.64	58.21	61.40	33.63	81.46
196	6/23/2021	81.18	96.73	24.55	58.14	60.61	33.43	80.35
197	6/24/2021	80.74	96.84	24.36	58.69	60.90	33.37	80.72
198	6/25/2021	81.23	98.30	24.60	59.72	61.18	33.97	81.83
199	6/28/2021	81.41	98.12	24.48	59.60	61.24	33.76	81.93
200	6/29/2021	79.41	95.80	24.34	58.45	60.17	33.28	80.62
201	6/30/2021	79.54	95.50	24.37	58.67	59.96	33.25	81.17
202	7/1/2021	80.20	96.37	24.58	59.66	60.91	33.58	82.27
203	7/2/2021	80.20	96.49	24.76	59.50	61.10	33.82	82.09
204	7/6/2021	80.89	96.46	24.74	59.40	61.23	33.57	82.66
205	7/7/2021	81.81	97.33	24.86	59.74	61.34	33.70	82.75
206	7/8/2021	81.55	97.04	25.11	59.86	61.33	33.57	82.25
207	7/9/2021	81.41	97.91	25.32	59.90	61.31	33.93	82.84
208	7/12/2021	82.36	98.81	25.06	59.94	61.42	33.95	82.97
209	7/13/2021	82.11	98.17	24.53	59.59	61.01	33.30	82.29
210	7/14/2021	82.70	98.82	24.62	60.06	61.83	33.47	83.32
211	7/15/2021	83.55	100.18	25.17	61.09	62.74	34.00	83.68
212	7/16/2021	84.53	100.60	25.44	61.58	64.06	34.23	85.55
213	7/19/2021	83.46	98.32	24.72	61.03	63.61	33.32	83.49
214	7/20/2021	83.46	98.86	25.09	61.51	63.50	33.89	84.05
215	7/21/2021	81.79	97.63	25.02	60.62	63.41	33.45	82.83
216	7/22/2021	81.98	97.04	24.88	60.81	63.64	33.21	82.37
217	7/23/2021	82.87	98.82	25.03	61.65	64.57	33.63	83.73
218	7/26/2021	82.73	98.89	25.20	61.55	64.64	33.73	84.06
219	7/27/2021	84.46	100.46	25.54	62.79	65.78	34.22	85.52
220	7/28/2021	83.66	99.71	25.51	61.83	64.70	33.96	84.49
221	7/29/2021	83.74	99.56	25.66	61.92	64.85	34.04	84.57
222	7/30/2021	83.40	97.97	25.31	61.37	64.71	33.75	83.55
223	8/2/2021	84.28	98.91	25.40	62.23	65.30	34.06	83.16

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
DCF Price, Dividend, and Growth Rate
As of March 31, 2021

Staff Schedule D-1.4

Line No.	Date	Stock Prices (\$):						
		AEE	ATO	CNP	CMS	EVRG	OGE	PNW
224	8/3/2021	85.08	99.05	25.72	62.81	65.86	34.34	80.98
225	8/4/2021	84.72	98.76	25.55	62.82	65.73	34.10	78.19
226	8/5/2021	85.59	100.67	26.08	63.21	66.53	34.47	79.46
227	8/6/2021	86.32	100.25	26.32	63.27	66.20	35.04	80.34
228	8/9/2021	87.16	100.48	26.38	63.26	66.22	35.21	80.32
229	8/10/2021	87.13	100.25	26.46	62.94	66.40	35.22	80.33
230	8/11/2021	87.61	100.50	26.65	63.19	67.03	35.64	80.40
231	8/12/2021	87.37	99.93	26.59	63.00	66.89	36.07	79.67
232	8/13/2021	88.29	100.83	26.74	63.46	67.57	36.29	79.78
233	8/16/2021	89.05	100.43	26.63	63.87	68.27	35.90	80.14
234	8/17/2021	89.42	100.31	26.69	64.27	68.43	35.95	80.15
235	8/18/2021	88.72	98.36	26.40	63.82	68.33	35.66	80.19
236	8/19/2021	89.01	98.01	25.92	64.01	68.60	35.39	80.08
237	8/20/2021	89.03	98.77	26.34	64.81	69.26	35.88	80.16
238	8/23/2021	87.00	97.82	26.18	64.07	68.91	35.51	78.91
239	8/24/2021	86.60	98.12	25.84	63.54	68.48	35.44	77.76
240	8/25/2021	86.79	97.49	25.72	63.64	68.86	35.69	77.79
241	8/26/2021	87.07	96.70	25.37	63.84	69.11	35.50	76.71
242	8/27/2021	87.47	97.38	25.62	64.16	68.31	35.57	77.31
243	8/30/2021	87.94	97.47	25.38	64.48	67.91	35.49	76.49
244	8/31/2021	87.17	97.51	25.09	64.13	68.45	35.41	76.90
245	9/1/2021	88.21	98.25	25.51	65.05	68.62	35.73	77.78
246	9/2/2021	88.42	98.30	25.77	65.61	68.95	35.96	78.26
247	9/3/2021	87.56	97.50	25.94	64.96	68.50	35.67	77.18
248	9/7/2021	86.14	96.13	25.80	63.52	67.23	35.23	75.78
249	9/8/2021	88.43	97.65	26.47	64.72	68.41	35.71	76.34
250	9/9/2021	87.88	96.19	26.56	64.44	68.19	35.50	75.54
251	9/10/2021	87.01	93.12	26.22	63.61	66.69	35.09	74.55
252	Average Stock Price:	79.50	95.04	22.79	60.29	57.84	32.12	79.30
253								
254	QUARTERLY DIV. ² (\$)	0.495	0.575	0.150	0.408	0.505	0.388	0.783
255		0.515	0.625	0.150	0.408	0.535	0.403	0.830
256		0.550	0.625	0.160	0.435	0.535	0.403	0.830
257		0.550	0.625	0.160	0.435	0.535	0.403	0.830
258								
259	ANNUAL DIVIDEND (\$)	2.1100	2.4500	0.6200	1.6850	2.1100	1.5950	3.2725
260								
261	YIELD	2.65%	2.58%	2.72%	2.80%	3.65%	4.97%	4.13%
262								
263								
264	Zack's	7.70%	7.80%	4.60%	5.72%	5.70%	3.90%	0.10%
265	Yahoo	7.34%	7.39%	4.81%	6.91%	5.85%	4.45%	5.00%
266								
267								
268	DCF GROWTH FACTOR	7.52%	7.60%	4.71%	6.32%	5.78%	4.18%	2.55%
269								
270	VALUE LINE ²							
271	22 EARNINGS (EPS)	23.95	25.05	1.65	2.85	3.55	2.45	5.45
272	24-26 EARNINGS (EPS)	25.75	35.50	2.00	3.50	4.25	2.75	6.50
273		1.81%	8.72%	4.81%	5.14%	4.50%	2.89%	4.40%
274								
275	VALUE LINE "BOXED" (Earnings) ²	6.50%	7.00%	9.50%	6.00%	8.00%	4.00%	5.00%
276								
277	VALUE LINE AVERAGE	6.50%	7.00%	9.50%	6.00%	8.00%	4.00%	5.00%
278								
279	DCF GROWTH ESTIMATE	7.01%	7.30%	7.10%	6.16%	6.89%	4.09%	3.78%

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
DCF Price, Dividend, and Growth Rate
As of March 31, 2021

Staff Schedule D-1.4

Line No.	Date	AEE	ATO	Stock Prices (\$):		EVRG	OGE	PNW
280								
281	DCF COST OF EQUITY ESTIMATE	9.43%	9.44%	9.54%	9.30%	10.49%	10.58%	9.72%
282								
283	DCF AVERAGE	9.787%						
284								
285	CAPM RATE	9.32%						
286								
287	DCF & CAPM AVERAGE	9.553%						
288								
289								
290	Sources:							
291	1 Yahoo Finance							
292	2 Value Line Investment Guide							
293	3. Zacks							

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Growth in U.S. Gross National Product, 1929 to 2019

Staff Schedule D-1.5

Line No.	Year	GNP (\$billion)	Change (\$billion)	Growth (%)
1	1929	105.3		
2	1930	92.9	-12.40	-11.78%
3	1931	77.9	-15.00	-16.15%
4	1932	59.9	-18.00	-23.11%
5	1933	57.5	-2.40	-4.01%
6	1934	67.1	9.60	16.70%
7	1935	74.6	7.50	11.18%
8	1936	85.1	10.50	14.08%
9	1937	93.4	8.30	9.75%
10	1938	87.7	-5.70	-6.10%
11	1939	93.8	6.10	6.96%
12	1940	103.2	9.40	10.02%
13	1941	129.7	26.50	25.68%
14	1942	166.4	36.70	28.30%
15	1943	203.4	37.00	22.24%
16	1944	224.8	21.40	10.52%
17	1945	228.3	3.50	1.56%
18	1946	228.2	-0.10	-0.04%
19	1947	250.7	22.50	9.86%
20	1948	275.9	25.20	10.05%
21	1949	273.8	-2.10	-0.76%
22	1950	301.3	27.50	10.04%
23	1951	348.8	47.50	15.77%
24	1952	369.3	20.50	5.88%
25	1953	391.1	21.80	5.90%
26	1954	392.6	1.50	0.38%
27	1955	427.9	35.30	8.99%
28	1956	452.1	24.20	5.66%
29	1957	477.1	25.00	5.53%
30	1958	483.9	6.80	1.43%
31	1959	524.4	40.50	8.37%
32	1960	545.5	21.10	4.02%
33	1961	565.7	20.20	3.70%
34	1962	608.0	42.30	7.48%
35	1963	641.9	33.90	5.58%
36	1964	689.4	47.50	7.40%
37	1965	747.6	58.20	8.44%
38	1966	818.5	70.90	9.48%
39	1967	865.4	46.90	5.73%
40	1968	946.7	81.30	9.39%
41	1969	1,023.7	77.00	8.13%
42	1970	1,079.7	56.00	5.47%
43	1971	1,172.4	92.70	8.59%
44	1972	1,287.7	115.30	9.83%
45	1973	1,438.0	150.30	11.67%
46	1974	1,560.8	122.80	8.54%
47	1975	1,697.9	137.10	8.78%
48	1976	1,890.3	192.40	11.33%
49	1977	2,102.1	211.80	11.20%
50	1978	2,373.2	271.10	12.90%

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Growth in U.S. Gross National Product, 1929 to 2019

Staff Schedule D-1.5

Line No.	Year	GNP (\$billion)	Change (\$billion)	Growth (%)
51	1979	2,659.3	286.10	12.06%
52	1980	2,891.5	232.20	8.73%
53	1981	3,240.0	348.50	12.05%
54	1982	3,380.3	140.30	4.33%
55	1983	3,671.1	290.80	8.60%
56	1984	4,073.9	402.80	10.97%
57	1985	4,364.3	290.40	7.13%
58	1986	4,596.6	232.30	5.32%
59	1987	4,872.7	276.10	6.01%
60	1988	5,259.1	386.40	7.93%
61	1989	5,666.4	407.30	7.74%
62	1990	5,997.8	331.40	5.85%
63	1991	6,189.7	191.90	3.20%
64	1992	6,551.4	361.70	5.84%
65	1993	6,889.7	338.30	5.16%
66	1994	7,310.2	420.50	6.10%
67	1995	7,667.7	357.50	4.89%
68	1996	8,104.0	436.30	5.69%
69	1997	8,600.9	496.90	6.13%
70	1998	9,080.2	479.30	5.57%
71	1999	9,656.2	576.00	6.34%
72	2000	10,287.4	631.20	6.54%
73	2001	10,630.6	343.20	3.34%
74	2002	10,981.7	351.10	3.30%
75	2003	11,516.6	534.90	4.87%
76	2004	12,291.9	775.30	6.73%
77	2005	13,114.6	822.70	6.69%
78	2006	13,865.1	750.50	5.72%
79	2007	14,560.9	695.80	5.02%
80	2008	14,867.5	306.60	2.11%
81	2009	14,590.9	-276.60	-1.86%
82	2010	15,187.8	596.90	4.09%
83	2011	15,779.0	591.20	3.89%
84	2012	16,429.3	650.30	4.12%
85	2013	17,015.6	586.30	3.57%
86	2014	17,768.3	752.70	4.42%
87	2015	18,458.7	690.40	3.89%
88	2016	18,977.1	518.40	2.81%
89	2017	19,835.3	858.20	4.52%
90	2018	20,896.6	1,061.30	5.35%
91	2019	21,702.9	806.30	3.86%
92	2020	20,893	-809.50	-3.73%
93				
94				
95	Average			6.41%

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
Growth in U.S. Gross National Product, 1929 to 2019

Staff Schedule D-1.5

Line No.	Year	GNP (\$billion)	Change (\$billion)	Growth (%)
----------	------	----------------------	-------------------------	---------------

96 Sources: (1) National Income and Product Accounts (NIPA) from the U. S. Bureau of Economic Analysis and Econostats; BEA Data; NIPA Index; Section 1. Domestic Product and Income Table 1.7.5 Relation of Gross Domestic Product, Gross National Product, Net National Product, National Income, and Personal Income. (2) U. S. Department of Commerce; Survey of Current of the United States Business and Historical Statistics

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
1	1	0.0701000	2.257911000
2	2	0.0701000	2.416190561
3	3	0.0701000	2.585565519
4	4	0.0701000	2.766813662
5	5	0.0701000	2.960767300
6	6	0.0698020	3.167434635
7	7	0.0695039	3.387583702
8	8	0.0692059	3.622024324
9	9	0.0689078	3.871610068
10	10	0.0686098	4.137240290
11	11	0.0683117	4.419862236
12	12	0.0680137	4.720473236
13	13	0.0677156	5.040122957
14	14	0.0674176	5.379915752
15	15	0.0671195	5.741013070
16	16	0.0668215	6.124635962
17	17	0.0665234	6.532067656
18	18	0.0662254	6.964656222
19	19	0.0659273	7.423817317
20	20	0.0656293	7.911037010
21	21	0.0653312	8.427874699
22	22	0.0650332	8.975966107
23	23	0.0647351	9.557026359
24	24	0.0644371	10.172853157
25	25	0.0641390	10.825330024
26	26	0.0641390	11.519656120
27	27	0.0641390	12.258515614
28	28	0.0641390	13.044764834
29	29	0.0641390	13.881443311
30	30	0.0641390	14.771785529
31	31	0.0641390	15.719233427
32	32	0.0641390	16.727449708
33	33	0.0641390	17.800331997
34	34	0.0641390	18.942027908
35	35	0.0641390	20.156951079
36	36	0.0641390	21.449798237
37	37	0.0641390	22.825567348
38	38	0.0641390	24.289576947

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
39	39	0.0641390	25.847486692
40	40	0.0641390	27.505319246
41	41	0.0641390	29.269483562
42	42	0.0641390	31.146799654
43	43	0.0641390	33.144524966
44	44	0.0641390	35.270382429
45	45	0.0641390	37.532590314
46	46	0.0641390	39.939894004
47	47	0.0641390	42.501599801
48	48	0.0641390	45.227610906
49	49	0.0641390	48.128465701
50	50	0.0641390	51.215378490
51	51	0.0641390	54.500282851
52	52	0.0641390	57.995877769
53	53	0.0641390	61.715676732
54	54	0.0641390	65.674059968
55	55	0.0641390	69.886330038
56	56	0.0641390	74.368770998
57	57	0.0641390	79.138711343
58	58	0.0641390	84.214591003
59	59	0.0641390	89.616032628
60	60	0.0641390	95.363917444
61	61	0.0641390	101.480465979
62	62	0.0641390	107.989323964
63	63	0.0641390	114.915653743
64	64	0.0641390	122.286231550
65	65	0.0641390	130.129551020
66	66	0.0641390	138.475933341
67	67	0.0641390	147.357644474
68	68	0.0641390	156.809019884
69	69	0.0641390	166.866597284
70	70	0.0641390	177.569257876
71	71	0.0641390	188.958376666
72	72	0.0641390	201.077982414
73	73	0.0641390	213.974927838
74	74	0.0641390	227.699070747
75	75	0.0641390	242.303466779
76	76	0.0641390	257.844574510

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
77	77	0.0641390	274.382473715
78	78	0.0641390	291.981097624
79	79	0.0641390	310.708480084
80	80	0.0641390	330.637018566
81	81	0.0641390	351.843754045
82	82	0.0641390	374.410668827
83	83	0.0641390	398.425003485
84	84	0.0641390	423.979594117
85	85	0.0641390	451.173231235
86	86	0.0641390	480.111041682
87	87	0.0641390	510.904895031
88	88	0.0641390	543.673836061
89	89	0.0641390	578.544544967
90	90	0.0641390	615.651827089
91	91	0.0641390	655.139134048
92	92	0.0641390	697.159118313
93	93	0.0641390	741.874223333
94	94	0.0641390	789.457311522
95	95	0.0641390	840.092332518
96	96	0.0641390	893.975034312
97	97	0.0641390	951.313719979
98	98	0.0641390	1012.330052949
99	99	0.0641390	1077.259913928
100	100	0.0641390	1146.354312782
101	101	0.0641390	1219.880358902
102	102	0.0641390	1298.122293817
103	103	0.0641390	1381.382590027
104	104	0.0641390	1469.983120327
105	105	0.0641390	1564.266402116
106	106	0.0641390	1664.596921523
107	107	0.0641390	1771.362542465
108	108	0.0641390	1884.976006069
109	109	0.0641390	2005.876526277
110	110	0.0641390	2134.531487783
111	111	0.0641390	2271.438252878
112	112	0.0641390	2417.126084187
113	113	0.0641390	2572.158190720
114	114	0.0641390	2737.133905166

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
115	115	0.0641390	2912.691000826
116	116	0.0641390	3099.508157156
117	117	0.0641390	3298.307583452
118	118	0.0641390	3509.857810808
119	119	0.0641390	3734.976663152
120	120	0.0641390	3974.534418840
121	121	0.0641390	4229.457175032
122	122	0.0641390	4500.730427854
123	123	0.0641390	4789.402882193
124	124	0.0641390	5096.590505843
125	125	0.0641390	5423.480843683
126	126	0.0641390	5771.337608558
127	127	0.0641390	6141.505566624
128	128	0.0641390	6535.415736023
129	129	0.0641390	6954.590919005
130	130	0.0641390	7400.651588866
131	131	0.0641390	7875.322154481
132	132	0.0641390	8380.437626623
133	133	0.0641390	8917.950711864
134	134	0.0641390	9489.939361471
135	135	0.0641390	10098.614804473
136	136	0.0641390	10746.330095972
137	137	0.0641390	11435.589213725
138	138	0.0641390	12169.056738177
139	139	0.0641390	12949.568153360
140	140	0.0641390	13780.140808486
141	141	0.0641390	14663.985582594
142	142	0.0641390	15604.519297372
143	143	0.0641390	16605.377926114
144	144	0.0641390	17670.430649889
145	145	0.0641390	18803.794815263
146	146	0.0641390	20009.851851389
147	147	0.0641390	21293.264208005
148	148	0.0641390	22658.993379826
149	149	0.0641390	24112.319086990
150	150	0.0641390	25658.859685729
151	151	0.0641390	27304.593888158
152	152	0.0641390	29055.883875146

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
153	153	0.0641390	30919.499891633
154	154	0.0641390	32902.646419456
155	155	0.0641390	35012.990028881
156	156	0.0641390	37258.689016505
157	157	0.0641390	39648.424944100
158	158	0.0641390	42191.436200333
159	159	0.0641390	44897.553715099
160	160	0.0641390	47777.238964534
161	161	0.0641390	50841.624413637
162	162	0.0641390	54102.556552842
163	163	0.0641390	57572.641694909
164	164	0.0641390	61265.294709188
165	165	0.0641390	65194.790881649
166	166	0.0641390	69376.321101161
167	167	0.0641390	73826.050585373
168	168	0.0641390	78561.181373205
169	169	0.0641390	83600.018825556
170	170	0.0641390	88962.042391296
171	171	0.0641390	94667.980912121
172	172	0.0641390	100739.892757392
173	173	0.0641390	107201.251098738
174	174	0.0641390	114077.034654094
175	175	0.0641390	121393.824251968
176	176	0.0641390	129179.905589253
177	177	0.0641390	137465.378579815
178	178	0.0641390	146282.273716601
179	179	0.0641390	155664.675897096
180	180	0.0641390	165648.856190825
181	181	0.0641390	176273.412058287
182	182	0.0641390	187579.416563407
183	183	0.0641390	199610.577156318
184	184	0.0641390	212413.404640321
185	185	0.0641390	226037.392976221
186	186	0.0641390	240535.210619132
187	187	0.0641390	255962.904127445
188	188	0.0641390	272380.114831074
189	189	0.0641390	289850.309396588
190	190	0.0641390	308441.025180569

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
191	191	0.0641390	328224.131319697
192	192	0.0641390	349276.106566892
193	193	0.0641390	371678.334947598
194	194	0.0641390	395517.420379174
195	195	0.0641390	420885.521469665
196	196	0.0641390	447880.707790234
197	197	0.0641390	476607.338998566
198	198	0.0641390	507176.468278875
199	199	0.0641390	539706.271658160
200	200	0.0641390	574322.504858383
201	201	0.0641390	611158.989450702
202	202	0.0641390	650358.130191164
203	203	0.0641390	692071.465537798
204	204	0.0641390	736460.253477343
205	205	0.0641390	783696.094926327
206	206	0.0641390	833961.597116482
207	207	0.0641390	887451.079529055
208	208	0.0641390	944371.325107052
209	209	0.0641390	1004942.379649500
210	210	0.0641390	1069398.402478100
211	211	0.0641390	1137988.571664740
212	212	0.0641390	1210978.047319540
213	213	0.0641390	1288648.996663110
214	214	0.0641390	1371301.684846020
215	215	0.0641390	1459255.635732390
216	216	0.0641390	1552850.867134940
217	217	0.0641390	1652449.205276830
218	218	0.0641390	1758435.683561850
219	219	0.0641390	1871220.031060270
220	220	0.0641390	1991238.256464810
221	221	0.0641390	2118954.333639930
222	222	0.0641390	2254861.995280670
223	223	0.0641390	2399486.641614950
224	224	0.0641390	2553387.371528230
225	225	0.0641390	2717159.143962460
226	226	0.0641390	2891435.077945110
227	227	0.0641390	3076888.900139800
228	228	0.0641390	3274237.549380400

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
229	229	0.0641390	3484243.948257430
230	230	0.0641390	3707719.952471330
231	231	0.0641390	3945529.489354310
232	232	0.0641390	4198591.897693990
233	233	0.0641390	4467885.481770030
234	234	0.0641390	4754451.293343190
235	235	0.0641390	5059397.156217490
236	236	0.0641390	5383901.948933880
237	237	0.0641390	5729220.162151670
238	238	0.0641390	6096686.748335940
239	239	0.0641390	6487722.282499190
240	240	0.0641390	6903838.453947940
241	241	0.0641390	7346643.910264550
242	242	0.0641390	7817850.476116350
243	243	0.0641390	8319279.770933070
244	244	0.0641390	8852870.251035780
245	245	0.0641390	9420684.703440870
246	246	0.0641390	10024918.220309500
247	247	0.0641390	10667906.684870500
248	248	0.0641390	11352135.801621600
249	249	0.0641390	12080250.705719700
250	250	0.0641390	12855066.188707500
251	251	0.0641390	13679577.580108300
252	252	0.0641390	14556972.326955900
253	253	0.0641390	15490642.316024000
254	254	0.0641390	16484196.986391800
255	255	0.0641390	17541477.283035700
256	256	0.0641390	18666570.505392400
257	257	0.0641390	19863826.108292500
258	258	0.0641390	21137872.516352200
259	259	0.0641390	22493635.016822200
260	260	0.0641390	23936354.800067900
261	261	0.0641390	25471609.221286200
262	262	0.0641390	27105333.361789600
263	263	0.0641390	28843842.973209800
264	264	0.0641390	30693858.893320600
265	265	0.0641390	32662533.027867100
266	266	0.0641390	34757475.998844400

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
267	267	0.0641390	36986786.566110100
268	268	0.0641390	39359082.936070200
269	269	0.0641390	41883536.078473000
270	270	0.0641390	44569905.180110300
271	271	0.0641390	47428575.372484400
272	272	0.0641390	50470597.879290000
273	273	0.0641390	53707732.738917500
274	274	0.0641390	57152494.267134700
275	275	0.0641390	60818199.435702100
276	276	0.0641390	64719019.353943500
277	277	0.0641390	68870034.052295600
278	278	0.0641390	73287290.779620700
279	279	0.0641390	77987866.039651700
280	280	0.0641390	82989931.606394300
281	281	0.0641390	88312824.773693100
282	282	0.0641390	93977123.110535200
283	283	0.0641390	100004724.011087000
284	284	0.0641390	106418929.346993000
285	285	0.0641390	113244535.549189000
286	286	0.0641390	120507929.467473000
287	287	0.0641390	128237190.378423000
288	288	0.0641390	136462198.535994000
289	289	0.0641390	145214750.684451000
290	290	0.0641390	154528682.980181000
291	291	0.0641390	164440001.797602000
292	292	0.0641390	174987022.924820000
293	293	0.0641390	186210519.687175000
294	294	0.0641390	198153880.571276000
295	295	0.0641390	210863276.958890000
296	296	0.0641390	224387841.619119000
297	297	0.0641390	238779858.648897000
298	298	0.0641390	254094965.596073000
299	299	0.0641390	270392368.546483000
300	300	0.0641390	287735071.006487000
301	301	0.0641390	306190117.465817000
302	302	0.0641390	325828852.582302000
303	303	0.0641390	346727196.990451000
304	304	0.0641390	368965940.800127000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
305	305	0.0641390	392631055.919942000
306	306	0.0641390	417814028.412771000
307	307	0.0641390	444612212.168215000
308	308	0.0641390	473129205.259284000
309	309	0.0641390	503475250.438216000
310	310	0.0641390	535767661.319720000
311	311	0.0641390	570131275.899185000
312	312	0.0641390	606698939.159114000
313	313	0.0641390	645612016.629449000
314	314	0.0641390	687020940.887173000
315	315	0.0641390	731085793.107845000
316	316	0.0641390	777976921.917296000
317	317	0.0641390	827875601.935856000
318	318	0.0641390	880974734.560978000
319	319	0.0641390	937479593.697362000
320	320	0.0641390	997608619.317491000
321	321	0.0641390	1061594261.920360000
322	322	0.0641390	1129683881.152970000
323	323	0.0641390	1202140702.068500000
324	324	0.0641390	1279244832.717990000
325	325	0.0641390	1361294347.009340000
326	326	0.0641390	1448606437.019790000
327	327	0.0641390	1541518639.216660000
328	328	0.0641390	1640390139.326650000
329	329	0.0641390	1745603160.898220000
330	330	0.0641390	1857564442.924920000
331	331	0.0641390	1976706812.242170000
332	332	0.0641390	2103490856.775900000
333	333	0.0641390	2238406706.111840000
334	334	0.0641390	2381975926.268660000
335	335	0.0641390	2534753536.000160000
336	336	0.0641390	2697330152.420970000
337	337	0.0641390	2870334274.250660000
338	338	0.0641390	3054434711.502920000
339	339	0.0641390	3250343171.012560000
340	340	0.0641390	3458817007.795740000
341	341	0.0641390	3680662152.879750000
342	342	0.0641390	3916736228.920910000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
343	343	0.0641390	4167951865.655190000
344	344	0.0641390	4435280227.998560000
345	345	0.0641390	4719754770.436310000
346	346	0.0641390	5022475232.215140000
347	347	0.0641390	5344611888.783070000
348	348	0.0641390	5687410075.912500000
349	349	0.0641390	6052195003.996090000
350	350	0.0641390	6440376881.126930000
351	351	0.0641390	6853456364.768030000
352	352	0.0641390	7293030363.086550000
353	353	0.0641390	7760798208.380020000
354	354	0.0641390	8258568226.459990000
355	355	0.0641390	8788264727.389600000
356	356	0.0641390	9351935444.600200000
357	357	0.0641390	9951759451.145660000
358	358	0.0641390	10590055583.697500000
359	359	0.0641390	11269291406.846900000
360	360	0.0641390	11992092752.367900000
361	361	0.0641390	12761253870.320600000
362	362	0.0641390	13579748231.234900000
363	363	0.0641390	14450740021.136600000
364	364	0.0641390	15377596373.853400000
365	365	0.0641390	16363900387.888300000
366	366	0.0641390	17413464978.182900000
367	367	0.0641390	18530347616.320000000
368	368	0.0641390	19718866016.147000000
369	369	0.0641390	20983614825.460900000
370	370	0.0641390	22329483388.281400000
371	371	0.0641390	23761674646.379000000
372	372	0.0641390	25285725253.128000000
373	373	0.0641390	26907526977.443500000
374	374	0.0641390	28633349480.544600000
375	375	0.0641390	30469864553.598700000
376	376	0.0641390	32424171909.942700000
377	377	0.0641390	34503826631.594000000
378	378	0.0641390	36716868376.152100000
379	379	0.0641390	39071852457.003800000
380	380	0.0641390	41577882916.981500000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
AEE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.6

g= 7.0100%
Non-Constant DCF = 9.0600% 9.4312%
Constant DCF = 9.85%
D= 2.1100
g(e)= 6.41%
P= -79.50

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
381	381	0.0641390	44244647723.334200000
382	382	0.0641390	47082456220.069100000
383	383	0.0641390	50102278982.450300000
384	384	0.0641390	53315790227.725600000
385	385	0.0641390	56735412946.036500000
386	386	0.0641390	60374366925.980000000
387	387	0.0641390	64246719860.483800000
388	388	0.0641390	68367441730.561500000
389	389	0.0641390	72752462677.190000000
390	390	0.0641390	77418734585.031100000
391	391	0.0641390	82384296616.074200000
392	392	0.0641390	87668344946.542100000
393	393	0.0641390	93291306976.654000000
394	394	0.0641390	99274920300.130200000
395	395	0.0641390	105642316738.724000000
396	396	0.0641390	112418111766.646000000
397	397	0.0641390	119628499670.583000000
398	398	0.0641390	127301354813.190000000
399	399	0.0641390	135466339391.521000000
400	400	0.0641390	144155018106.983000000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
1	1	0.0729750	2.628788750
2	2	0.0729750	2.820624609
3	3	0.0729750	3.026459690
4	4	0.0729750	3.247315586
5	5	0.0729750	3.484288441
6	6	0.0725332	3.737015035
7	7	0.0720914	4.006421689
8	8	0.0716496	4.293480215
9	9	0.0712078	4.599209516
10	10	0.0707660	4.924677203
11	11	0.0703242	5.271001222
12	12	0.0698824	5.639351481
13	13	0.0694406	6.030951485
14	14	0.0689988	6.447079963
15	15	0.0685570	6.889072500
16	16	0.0681152	7.358323140
17	17	0.0676734	7.856285989
18	18	0.0672316	8.384476785
19	19	0.0667898	8.944474450
20	20	0.0663480	9.537922598
21	21	0.0659062	10.166531011
22	22	0.0654644	10.832077067
23	23	0.0650226	11.536407109
24	24	0.0645808	12.281437766
25	25	0.0641390	13.069157191
26	26	0.0641390	13.907400170
27	27	0.0641390	14.799407235
28	28	0.0641390	15.748626763
29	29	0.0641390	16.758728303
30	30	0.0641390	17.833616771
31	31	0.0641390	18.977447534
32	32	0.0641390	20.194642486
33	33	0.0641390	21.489907134
34	34	0.0641390	22.868248791
35	35	0.0641390	24.334995936
36	36	0.0641390	25.895818810
37	37	0.0641390	27.556751339
38	38	0.0641390	29.324214459

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
39	39	0.0641390	31.205040937
40	40	0.0641390	33.206501789
41	41	0.0641390	35.336334385
42	42	0.0641390	37.602772364
43	43	0.0641390	40.014577461
44	44	0.0641390	42.581073382
45	45	0.0641390	45.312181845
46	46	0.0641390	48.218460938
47	47	0.0641390	51.311145934
48	48	0.0641390	54.602192724
49	49	0.0641390	58.104324043
50	50	0.0641390	61.831078643
51	51	0.0641390	65.796863645
52	52	0.0641390	70.017010224
53	53	0.0641390	74.507832882
54	54	0.0641390	79.286692521
55	55	0.0641390	84.372063550
56	56	0.0641390	89.783605310
57	57	0.0641390	95.542238074
58	58	0.0641390	101.670223920
59	59	0.0641390	108.191252794
60	60	0.0641390	115.130534091
61	61	0.0641390	122.514894114
62	62	0.0641390	130.372879777
63	63	0.0641390	138.734868967
64	64	0.0641390	147.633187978
65	65	0.0641390	157.102236480
66	66	0.0641390	167.178620505
67	67	0.0641390	177.901293962
68	68	0.0641390	189.311709223
69	69	0.0641390	201.453977375
70	70	0.0641390	214.375038749
71	71	0.0641390	228.124844381
72	72	0.0641390	242.756549118
73	73	0.0641390	258.326717109
74	74	0.0641390	274.895540469
75	75	0.0641390	292.527071978
76	76	0.0641390	311.289472700

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
77	77	0.0641390	331.255275481
78	78	0.0641390	352.501665355
79	79	0.0641390	375.110777926
80	80	0.0641390	399.170016898
81	81	0.0641390	424.772391962
82	82	0.0641390	452.016878361
83	83	0.0641390	481.008799510
84	84	0.0641390	511.860234169
85	85	0.0641390	544.690449719
86	86	0.0641390	579.626363232
87	87	0.0641390	616.803032121
88	88	0.0641390	656.364176246
89	89	0.0641390	698.462733522
90	90	0.0641390	743.261451148
91	91	0.0641390	790.933514774
92	92	0.0641390	841.663218005
93	93	0.0641390	895.646674860
94	94	0.0641390	953.092577919
95	95	0.0641390	1014.223005100
96	96	0.0641390	1079.274278182
97	97	0.0641390	1148.497876392
98	98	0.0641390	1222.161408588
99	99	0.0641390	1300.549647802
100	100	0.0641390	1383.965632127
101	101	0.0641390	1472.731836225
102	102	0.0641390	1567.191417967
103	103	0.0641390	1667.709545034
104	104	0.0641390	1774.674806609
105	105	0.0641390	1888.500715601
106	106	0.0641390	2009.627307236
107	107	0.0641390	2138.522840169
108	108	0.0641390	2275.685606708
109	109	0.0641390	2421.645859144
110	110	0.0641390	2576.967859629
111	111	0.0641390	2742.252061542
112	112	0.0641390	2918.137430753
113	113	0.0641390	3105.303915780
114	114	0.0641390	3304.475076374

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
115	115	0.0641390	3516.420880703
116	116	0.0641390	3741.960681941
117	117	0.0641390	3981.966385774
118	118	0.0641390	4237.365821066
119	119	0.0641390	4509.146326722
120	120	0.0641390	4798.358568596
121	121	0.0641390	5106.120601226
122	122	0.0641390	5433.622190076
123	123	0.0641390	5782.129411006
124	124	0.0641390	6152.989544741
125	125	0.0641390	6547.636285282
126	126	0.0641390	6967.595282359
127	127	0.0641390	7414.490039386
128	128	0.0641390	7890.048189703
129	129	0.0641390	8396.108175363
130	130	0.0641390	8934.626354297
131	131	0.0641390	9507.684563324
132	132	0.0641390	10117.498166244
133	133	0.0641390	10766.424618126
134	134	0.0641390	11456.972578906
135	135	0.0641390	12191.811611518
136	136	0.0641390	12973.782502056
137	137	0.0641390	13805.908241859
138	138	0.0641390	14691.405713980
139	139	0.0641390	15633.698129208
140	140	0.0641390	16636.428259728
141	141	0.0641390	17703.472521579
142	142	0.0641390	18838.955960335
143	143	0.0641390	20047.268197968
144	144	0.0641390	21333.080402514
145	145	0.0641390	22701.363346167
146	146	0.0641390	24157.406621595
147	147	0.0641390	25706.839090772
148	148	0.0641390	27355.650645385
149	149	0.0641390	29110.215362921
150	150	0.0641390	30977.316147975
151	151	0.0641390	32964.170954018
152	152	0.0641390	35078.460687006

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
153	153	0.0641390	37328.358898705
154	154	0.0641390	39722.563384506
155	155	0.0641390	42270.329807905
156	156	0.0641390	44981.507481615
157	157	0.0641390	47866.577443647
158	158	0.0641390	50936.692975555
159	159	0.0641390	54203.722719480
160	160	0.0641390	57680.296560679
161	161	0.0641390	61379.854452915
162	162	0.0641390	65316.698375462
163	163	0.0641390	69506.047622576
164	164	0.0641390	73964.097639183
165	165	0.0641390	78708.082630234
166	166	0.0641390	83756.342185750
167	167	0.0641390	89128.392179151
168	168	0.0641390	94845.000212916
169	169	0.0641390	100928.265903268
170	170	0.0641390	107401.706314230
171	171	0.0641390	114290.346871347
172	172	0.0641390	121620.818106521
173	173	0.0641390	129421.458607960
174	174	0.0641390	137722.424573247
175	175	0.0641390	146555.806389027
176	176	0.0641390	155955.752688006
177	177	0.0641390	165958.602362845
178	178	0.0641390	176603.025047290
179	179	0.0641390	187930.170607633
180	180	0.0641390	199983.828222403
181	181	0.0641390	212810.595665277
182	182	0.0641390	226460.059445631
183	183	0.0641390	240984.986503124
184	184	0.0641390	256441.528197396
185	185	0.0641390	272889.437381459
186	186	0.0641390	290392.299397962
187	187	0.0641390	309017.777891338
188	188	0.0641390	328837.876386092
189	189	0.0641390	349929.216642477
190	190	0.0641390	372373.334865619

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
191	191	0.0641390	396256.996913218
192	192	0.0641390	421672.533720350
193	193	0.0641390	448718.198238101
194	194	0.0641390	477498.545265886
195	195	0.0641390	508124.835645851
196	196	0.0641390	540715.466381902
197	197	0.0641390	575396.428346150
198	198	0.0641390	612301.793342208
199	199	0.0641390	651574.232408237
200	200	0.0641390	693365.567363458
201	201	0.0641390	737837.357730313
202	202	0.0641390	785161.525301235
203	203	0.0641390	835521.018764534
204	204	0.0641390	889110.520958720
205	205	0.0641390	946137.201489446
206	206	0.0641390	1006821.517618550
207	207	0.0641390	1071398.066521360
208	208	0.0641390	1140116.492206920
209	209	0.0641390	1213242.450607220
210	210	0.0641390	1291058.636566290
211	211	0.0641390	1373865.876699400
212	212	0.0641390	1461984.292347120
213	213	0.0641390	1555754.537120200
214	214	0.0641390	1655539.113819290
215	215	0.0641390	1761723.775820700
216	216	0.0641390	1874719.018345530
217	217	0.0641390	1994961.665377520
218	218	0.0641390	2122916.558364110
219	219	0.0641390	2259078.353229250
220	220	0.0641390	2403973.432644760
221	221	0.0641390	2558161.940953000
222	222	0.0641390	2722239.949607400
223	223	0.0641390	2896841.761502330
224	224	0.0641390	3082642.363100350
225	225	0.0641390	3280360.033836550
226	226	0.0641390	3490759.122887530
227	227	0.0641390	3714653.004039640
228	228	0.0641390	3952907.220079560

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
229	229	0.0641390	4206442.828863050
230	230	0.0641390	4476239.963997240
231	231	0.0641390	4763341.623901670
232	232	0.0641390	5068857.703895910
233	233	0.0641390	5393969.286901460
234	234	0.0641390	5739933.209344980
235	235	0.0641390	6108086.919914120
236	236	0.0641390	6499853.649949270
237	237	0.0641390	6916747.915459070
238	238	0.0641390	7360381.372029950
239	239	0.0641390	7832469.045263700
240	240	0.0641390	8334835.960829410
241	241	0.0641390	8869424.199760260
242	242	0.0641390	9438300.406270360
243	243	0.0641390	10043663.777115400
244	244	0.0641390	10687854.563383500
245	245	0.0641390	11373363.117581800
246	246	0.0641390	12102839.520995500
247	247	0.0641390	12879103.828535400
248	248	0.0641390	13705156.970680200
249	249	0.0641390	14584192.354658900
250	250	0.0641390	15519608.209721500
251	251	0.0641390	16515020.724223600
252	252	0.0641390	17574278.025310400
253	253	0.0641390	18701475.055244200
254	254	0.0641390	19900969.401884800
255	255	0.0641390	21177398.144522200
256	256	0.0641390	22535695.780183400
257	257	0.0641390	23981113.299715500
258	258	0.0641390	25519238.487391200
259	259	0.0641390	27156017.522508900
260	260	0.0641390	28897777.966500800
261	261	0.0641390	30751253.224409700
262	262	0.0641390	32723608.575302300
263	263	0.0641390	34822468.872247200
264	264	0.0641390	37055948.018942600
265	265	0.0641390	39432680.336946000
266	266	0.0641390	41961853.944767500

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
267	267	0.0641390	44653246.277865600
268	268	0.0641390	47517261.886860900
269	269	0.0641390	50564972.660089500
270	270	0.0641390	53808160.625993300
271	271	0.0641390	57259363.500812200
272	272	0.0641390	60931923.157661800
273	273	0.0641390	64840037.204369900
274	274	0.0641390	68998813.869465300
275	275	0.0641390	73424330.408500400
276	276	0.0641390	78133695.256498200
277	277	0.0641390	83145114.166796100
278	278	0.0641390	88477960.591971600
279	279	0.0641390	94152850.578930500
280	280	0.0641390	100191722.467694000
281	281	0.0641390	106617921.701989000
282	282	0.0641390	113456291.079503000
283	283	0.0641390	120733266.790706000
284	284	0.0641390	128476980.617509000
285	285	0.0641390	136717368.686842000
286	286	0.0641390	145486287.199581000
287	287	0.0641390	154817635.582216000
288	288	0.0641390	164747487.537347000
289	289	0.0641390	175314230.499630000
290	290	0.0641390	186558714.036291000
291	291	0.0641390	198524407.765906000
292	292	0.0641390	211257569.405935000
293	293	0.0641390	224807423.598661000
294	294	0.0641390	239226352.206853000
295	295	0.0641390	254570096.814802000
296	296	0.0641390	270897974.217580000
297	297	0.0641390	288273105.731566000
298	298	0.0641390	306762661.212731000
299	299	0.0641390	326438118.726011000
300	300	0.0641390	347375540.869623000
301	301	0.0641390	369655868.822552000
302	302	0.0641390	393365235.251960000
303	303	0.0641390	418595297.290162000
304	304	0.0641390	445443590.868434000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
305	305	0.0641390	474013907.777430000
306	306	0.0641390	504416696.911898000
307	307	0.0641390	536769491.250830000
308	308	0.0641390	571197362.223715000
309	309	0.0641390	607833403.219384000
310	310	0.0641390	646819244.106655000
311	311	0.0641390	688305598.755818000
312	312	0.0641390	732452847.677620000
313	313	0.0641390	779431658.032144000
314	314	0.0641390	829423643.404452000
315	315	0.0641390	882622065.897590000
316	316	0.0641390	939232583.257160000
317	317	0.0641390	999474043.915729000
318	318	0.0641390	1063579333.030600000
319	319	0.0641390	1131796272.785650000
320	320	0.0641390	1204388580.437590000
321	321	0.0641390	1281636887.810450000
322	322	0.0641390	1363839826.179410000
323	323	0.0641390	1451315180.737970000
324	324	0.0641390	1544401119.111630000
325	325	0.0641390	1643457498.667130000
326	326	0.0641390	1748867257.671290000
327	327	0.0641390	1861037895.677380000
328	328	0.0641390	1980403048.862080000
329	329	0.0641390	2107424166.402960000
330	330	0.0641390	2242592294.377200000
331	331	0.0641390	2386429974.077820000
332	332	0.0641390	2539493262.086090000
333	333	0.0641390	2702373879.909340000
334	334	0.0641390	2875701501.494560000
335	335	0.0641390	3060146187.460740000
336	336	0.0641390	3256420975.460620000
337	337	0.0641390	3465284636.685670000
338	338	0.0641390	3687544609.170550000
339	339	0.0641390	3924060119.236970000
340	340	0.0641390	4175745503.143790000
341	341	0.0641390	4443573741.784610000
342	342	0.0641390	4728580222.097340000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g=	7.2975%	
Non-Constant DCF =	9.5833%	9.4395%
Constant DCF =	10.0636%	
D=	2.4500	
g(e)=	6.41%	
P=	-95.04	

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
343	343	0.0641390	5031866739.726990000
344	344	0.0641390	5354605758.415220000
345	345	0.0641390	5698044942.583080000
346	346	0.0641390	6063511980.629170000
347	347	0.0641390	6452419717.589380000
348	348	0.0641390	6866271617.000440000
349	349	0.0641390	7306667573.082090000
350	350	0.0641390	7775310095.706910000
351	351	0.0641390	8274010892.068070000
352	352	0.0641390	8804697870.488850000
353	353	0.0641390	9369422593.449630000
354	354	0.0641390	9970368208.644780000
355	355	0.0641390	10609857888.729800000
356	356	0.0641390	11290363812.385400000
357	357	0.0641390	12014516721.419000000
358	358	0.0641390	12785116090.847900000
359	359	0.0641390	13605140951.283500000
360	360	0.0641390	14477761405.451300000
361	361	0.0641390	15406350883.369600000
362	362	0.0641390	16394499183.563800000
363	363	0.0641390	17446026350.731100000
364	364	0.0641390	18564997443.504800000
365	365	0.0641390	19755738249.409200000
366	366	0.0641390	21022852007.756000000
367	367	0.0641390	22371237205.130900000
368	368	0.0641390	23806106512.265400000
369	369	0.0641390	25333006935.501400000
370	370	0.0641390	26957841260.750100000
371	371	0.0641390	28686890872.846800000
372	372	0.0641390	30526840038.515900000
373	373	0.0641390	32484801746.821700000
374	374	0.0641390	34568345207.000800000
375	375	0.0641390	36785525109.978200000
376	376	0.0641390	39144912766.689000000
377	377	0.0641390	41655629243.581000000
378	378	0.0641390	44327380623.396600000
379	379	0.0641390	47170495527.546600000
380	380	0.0641390	50195965045.132400000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
ATO Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.7

g= 7.2975%
Non-Constant DCF = 9.5833% 9.4395%
Constant DCF = 10.0636%
D= 2.4500
g(e)= 6.41%
P= -95.04

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
381	381	0.0641390	53415485222.976700000
382	382	0.0641390	56841502280.923300000
383	383	0.0641390	60487260727.202200000
384	384	0.0641390	64366854559.867000000
385	385	0.0641390	68495281752.242600000
386	386	0.0641390	72888502233.016300000
387	387	0.0641390	77563499585.115100000
388	388	0.0641390	82538346701.889700000
389	389	0.0641390	87832275654.420300000
390	390	0.0641390	93465752040.044800000
391	391	0.0641390	99460554099.528100000
392	392	0.0641390	105839856908.730000000
393	393	0.0641390	112628321970.243000000
394	394	0.0641390	119852192551.352000000
395	395	0.0641390	127539395136.879000000
396	396	0.0641390	135719647389.108000000
397	397	0.0641390	144424573032.160000000
398	398	0.0641390	153687824104.941000000
399	399	0.0641390	163545211055.265000000
400	400	0.0641390	174034841178.101000000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
1	1	0.0710250	0.664035500
2	2	0.0710250	0.711198621
3	3	0.0710250	0.761711503
4	4	0.0710250	0.815812063
5	5	0.0710250	0.873755115
6	6	0.0706807	0.935512739
7	7	0.0703364	1.001313339
8	8	0.0699921	1.071397366
9	9	0.0696478	1.146017841
10	10	0.0693035	1.225440895
11	11	0.0689592	1.309946327
12	12	0.0686149	1.399828174
13	13	0.0682706	1.495395297
14	14	0.0679263	1.596971982
15	15	0.0675820	1.704898561
16	16	0.0672377	1.819532041
17	17	0.0668934	1.941246751
18	18	0.0665491	2.070435005
19	19	0.0662048	2.207507775
20	20	0.0658605	2.352895379
21	21	0.0655162	2.507048187
22	22	0.0651719	2.670437331
23	23	0.0648276	2.843555430
24	24	0.0644833	3.026917332
25	25	0.0641390	3.221060853
26	26	0.0641390	3.427656551
27	27	0.0641390	3.647503095
28	28	0.0641390	3.881450381
29	29	0.0641390	4.130402818
30	30	0.0641390	4.395322821
31	31	0.0641390	4.677234534
32	32	0.0641390	4.977227790
33	33	0.0641390	5.296462320
34	34	0.0641390	5.636172240
35	35	0.0641390	5.997670824
36	36	0.0641390	6.382355573
37	37	0.0641390	6.791713627
38	38	0.0641390	7.227327506

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
39	39	0.0641390	7.690881234
40	40	0.0641390	8.184166846
41	41	0.0641390	8.709091315
42	42	0.0641390	9.267683927
43	43	0.0641390	9.862104123
44	44	0.0641390	10.494649851
45	45	0.0641390	11.167766444
46	46	0.0641390	11.884056077
47	47	0.0641390	12.646287828
48	48	0.0641390	13.457408379
49	49	0.0641390	14.320553411
50	50	0.0641390	15.239059721
51	51	0.0641390	16.216478130
52	52	0.0641390	17.256587200
53	53	0.0641390	18.363407851
54	54	0.0641390	19.541218897
55	55	0.0641390	20.794573594
56	56	0.0641390	22.128317237
57	57	0.0641390	23.547605894
58	58	0.0641390	25.057926340
59	59	0.0641390	26.665117265
60	60	0.0641390	28.375391846
61	61	0.0641390	30.195361768
62	62	0.0641390	32.132062784
63	63	0.0641390	34.192981911
64	64	0.0641390	36.386086379
65	65	0.0641390	38.719854426
66	66	0.0641390	41.203308076
67	67	0.0641390	43.846048018
68	68	0.0641390	46.658290719
69	69	0.0641390	49.650907920
70	70	0.0641390	52.835468666
71	71	0.0641390	56.224284028
72	72	0.0641390	59.830454699
73	73	0.0641390	63.667921634
74	74	0.0641390	67.751519951
75	75	0.0641390	72.097036276
76	76	0.0641390	76.721269775

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
77	77	0.0641390	81.642097094
78	78	0.0641390	86.878541472
79	79	0.0641390	92.450846279
80	80	0.0641390	98.380553274
81	81	0.0641390	104.690585885
82	82	0.0641390	111.405337825
83	83	0.0641390	118.550767397
84	84	0.0641390	126.154497845
85	85	0.0641390	134.245924137
86	86	0.0641390	142.856326610
87	87	0.0641390	152.018991889
88	88	0.0641390	161.769341570
89	89	0.0641390	172.145069159
90	90	0.0641390	183.186285782
91	91	0.0641390	194.935675257
92	92	0.0641390	207.438659098
93	93	0.0641390	220.743572113
94	94	0.0641390	234.901849256
95	95	0.0641390	249.968224468
96	96	0.0641390	266.000942272
97	97	0.0641390	283.061982939
98	98	0.0641390	301.217302094
99	99	0.0641390	320.537085689
100	100	0.0641390	341.096021336
101	101	0.0641390	362.973587039
102	102	0.0641390	386.254358440
103	103	0.0641390	411.028335784
104	104	0.0641390	437.391291841
105	105	0.0641390	465.445142154
106	106	0.0641390	495.298339029
107	107	0.0641390	527.066290798
108	108	0.0641390	560.871807970
109	109	0.0641390	596.845578000
110	110	0.0641390	635.126670508
111	111	0.0641390	675.863074905
112	112	0.0641390	719.212272498
113	113	0.0641390	765.341845291
114	114	0.0641390	814.430123834

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
115	115	0.0641390	866.666876624
116	116	0.0641390	922.254043725
117	117	0.0641390	981.406517439
118	118	0.0641390	1044.352973050
119	119	0.0641390	1111.336752852
120	120	0.0641390	1182.616806875
121	121	0.0641390	1258.468693954
122	122	0.0641390	1339.185646994
123	123	0.0641390	1425.079706576
124	124	0.0641390	1516.482927258
125	125	0.0641390	1613.748661253
126	126	0.0641390	1717.252924438
127	127	0.0641390	1827.395849984
128	128	0.0641390	1944.603235212
129	129	0.0641390	2069.328187667
130	130	0.0641390	2202.052876768
131	131	0.0641390	2343.290397813
132	132	0.0641390	2493.586755529
133	133	0.0641390	2653.522974853
134	134	0.0641390	2823.717347095
135	135	0.0641390	3004.827820164
136	136	0.0641390	3197.554542108
137	137	0.0641390	3402.642567785
138	138	0.0641390	3620.884739146
139	139	0.0641390	3853.124750247
140	140	0.0641390	4100.260408861
141	141	0.0641390	4363.247107271
142	142	0.0641390	4643.101515691
143	143	0.0641390	4940.905512568
144	144	0.0641390	5257.810366977
145	145	0.0641390	5595.041189266
146	146	0.0641390	5953.901667165
147	147	0.0641390	6335.779105663
148	148	0.0641390	6742.149790133
149	149	0.0641390	7174.584693454
150	150	0.0641390	7634.755549168
151	151	0.0641390	8124.441314176
152	152	0.0641390	8645.535045937

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
153	153	0.0641390	9200.051220766
154	154	0.0641390	9790.133521521
155	155	0.0641390	10418.063124787
156	156	0.0641390	11086.267519585
157	157	0.0641390	11797.329891714
158	158	0.0641390	12553.999109985
159	159	0.0641390	13359.200352971
160	160	0.0641390	14216.046417342
161	161	0.0641390	15127.849751508
162	162	0.0641390	16098.135261082
163	163	0.0641390	17130.653935683
164	164	0.0641390	18229.397349740
165	165	0.0641390	19398.613093370
166	166	0.0641390	20642.821192968
167	167	0.0641390	21966.831585011
168	168	0.0641390	23375.762710604
169	169	0.0641390	24875.061302664
170	170	0.0641390	26470.523442241
171	171	0.0641390	28168.316965361
172	172	0.0641390	29975.005307031
173	173	0.0641390	31897.572874568
174	174	0.0641390	33943.452048354
175	175	0.0641390	36120.551914391
176	176	0.0641390	38437.288839733
177	177	0.0641390	40902.619008998
178	178	0.0641390	43526.073047739
179	179	0.0641390	46317.792866524
180	180	0.0641390	49288.570868160
181	181	0.0641390	52449.891669632
182	182	0.0641390	55813.976500043
183	183	0.0641390	59393.830446192
184	184	0.0641390	63203.292728450
185	185	0.0641390	67257.090201265
186	186	0.0641390	71570.894285146
187	187	0.0641390	76161.381550213
188	188	0.0641390	81046.298185503
189	189	0.0641390	86244.528603290
190	190	0.0641390	91776.168443610

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
191	191	0.0641390	97662.602261224
192	192	0.0641390	103926.586195353
193	193	0.0641390	110592.335941763
194	194	0.0641390	117685.620367300
195	195	0.0641390	125233.861128763
196	196	0.0641390	133266.238681239
197	197	0.0641390	141813.805085708
198	198	0.0641390	150909.604052015
199	199	0.0641390	160588.798681287
200	200	0.0641390	170888.807401615
201	201	0.0641390	181849.448622529
202	202	0.0641390	193513.094667459
203	203	0.0641390	205924.835579279
204	204	0.0641390	219132.653432182
205	205	0.0641390	233187.607823737
206	206	0.0641390	248144.033264243
207	207	0.0641390	264059.749226424
208	208	0.0641390	280996.283667521
209	209	0.0641390	299019.110887864
210	210	0.0641390	318197.904645469
211	211	0.0641390	338606.807505146
212	212	0.0641390	360324.717463408
213	213	0.0641390	383435.592957214
214	214	0.0641390	408028.777435677
215	215	0.0641390	434199.344749487
216	216	0.0641390	462048.466693269
217	217	0.0641390	491683.804121755
218	218	0.0641390	523219.923151759
219	219	0.0641390	556778.738058946
220	220	0.0641390	592489.982581562
221	221	0.0641390	630491.711453133
222	222	0.0641390	670930.834102967
223	223	0.0641390	713963.682587705
224	224	0.0641390	759756.615949428
225	225	0.0641390	808486.663336714
226	226	0.0641390	860342.208374849
227	227	0.0641390	915523.717430875
228	228	0.0641390	974244.514588843

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
229	229	0.0641390	1036731.606331230
230	230	0.0641390	1103226.559114610
231	231	0.0641390	1173986.433232170
232	232	0.0641390	1249284.776573280
233	233	0.0641390	1329412.682121760
234	234	0.0641390	1414679.913281170
235	235	0.0641390	1505416.101377260
236	236	0.0641390	1601972.019967090
237	237	0.0641390	1704720.940881120
238	238	0.0641390	1814060.077240510
239	239	0.0641390	1930412.119028050
240	240	0.0641390	2054226.867149300
241	241	0.0641390	2185982.972300590
242	242	0.0641390	2326189.785366500
243	243	0.0641390	2475389.326499910
244	244	0.0641390	2634158.380497000
245	245	0.0641390	2803110.726567500
246	246	0.0641390	2982899.511120230
247	247	0.0641390	3174219.772736850
248	248	0.0641390	3377811.129094870
249	249	0.0641390	3594460.636227370
250	250	0.0641390	3825005.831172740
251	251	0.0641390	4070337.969777110
252	252	0.0641390	4331405.472166200
253	253	0.0641390	4609217.589206410
254	254	0.0641390	4904848.304129050
255	255	0.0641390	5219440.484401120
256	256	0.0641390	5554210.299892820
257	257	0.0641390	5910451.924422150
258	258	0.0641390	6289542.538851940
259	259	0.0641390	6692947.655080640
260	260	0.0641390	7122226.781508700
261	261	0.0641390	7579039.451882360
262	262	0.0641390	8065151.640821730
263	263	0.0641390	8582442.590834400
264	264	0.0641390	9132912.077207200
265	265	0.0641390	9718688.138860940
266	266	0.0641390	10342035.305054600

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
267	267	0.0641390	11005363.349742300
268	268	0.0641390	11711236.607426400
269	269	0.0641390	12462383.886519700
270	270	0.0641390	13261709.018542100
271	271	0.0641390	14112302.083931100
272	272	0.0641390	15017451.357865700
273	273	0.0641390	15980656.022283900
274	274	0.0641390	17005639.693235800
275	275	0.0641390	18096364.815868500
276	276	0.0641390	19257047.982691500
277	277	0.0641390	20492176.234339700
278	278	0.0641390	21806524.405852700
279	279	0.0641390	23205173.585526200
280	280	0.0641390	24693530.757697500
281	281	0.0641390	26277349.705398600
282	282	0.0641390	27962753.253686500
283	283	0.0641390	29756256.939637700
284	284	0.0641390	31664794.200514100
285	285	0.0641390	33695743.177472300
286	286	0.0641390	35856955.238437500
287	287	0.0641390	38156785.330406300
288	288	0.0641390	40604124.278516200
289	289	0.0641390	43208433.156746600
290	290	0.0641390	45979779.863122300
291	291	0.0641390	48928878.040815700
292	292	0.0641390	52067128.495609200
293	293	0.0641390	55406663.269834700
294	294	0.0641390	58960392.543171000
295	295	0.0641390	62742054.541614100
296	296	0.0641390	66766268.647558900
297	297	0.0641390	71048591.916310000
298	298	0.0641390	75605579.217506700
299	299	0.0641390	80454847.233960000
300	300	0.0641390	85615142.565312100
301	301	0.0641390	91106414.199799100
302	302	0.0641390	96949890.634280700
303	303	0.0641390	103168161.940674000
304	304	0.0641390	109785267.096048000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
305	305	0.0641390	116826786.913984000
306	306	0.0641390	124319942.936467000
307	307	0.0641390	132293702.668600000
308	308	0.0641390	140778891.562972000
309	309	0.0641390	149808312.186603000
310	310	0.0641390	159416871.031121000
311	311	0.0641390	169641713.456444000
312	312	0.0641390	180522367.289596000
313	313	0.0641390	192100895.633827000
314	314	0.0641390	204422059.478749000
315	315	0.0641390	217533490.740137000
316	316	0.0641390	231485876.398329000
317	317	0.0641390	246333154.447078000
318	318	0.0641390	262132722.410386000
319	319	0.0641390	278945659.233389000
320	320	0.0641390	296836961.405117000
321	321	0.0641390	315875794.225932000
322	322	0.0641390	336135759.191016000
323	323	0.0641390	357695178.523575000
324	324	0.0641390	380637397.957723000
325	325	0.0641390	405051108.941568000
326	326	0.0641390	431030691.506084000
327	327	0.0641390	458676579.125264000
328	328	0.0641390	488095646.978041000
329	329	0.0641390	519401625.112953000
330	330	0.0641390	552715538.112787000
331	331	0.0641390	588166172.958879000
332	332	0.0641390	625890576.903777000
333	333	0.0641390	666034587.276971000
334	334	0.0641390	708753395.271845000
335	335	0.0641390	754212145.893367000
336	336	0.0641390	802586576.385851000
337	337	0.0641390	854063695.608839000
338	338	0.0641390	908842506.987494000
339	339	0.0641390	967134777.832331000
340	340	0.0641390	1029165858.002350000
341	341	0.0641390	1095175551.076440000
342	342	0.0641390	1165419041.400850000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
343	343	0.0641390	1240167880.596600000
344	344	0.0641390	1319711037.340480000
345	345	0.0641390	1404356014.478010000
346	346	0.0641390	1494430037.786930000
347	347	0.0641390	1590281320.986790000
348	348	0.0641390	1692280411.885080000
349	349	0.0641390	1800821624.863770000
350	350	0.0641390	1916324565.244220000
351	351	0.0641390	2039235751.423330000
352	352	0.0641390	2170030341.051920000
353	353	0.0641390	2309213967.928490000
354	354	0.0641390	2457324696.709590000
355	355	0.0641390	2614935102.993410000
356	356	0.0641390	2782654486.817810000
357	357	0.0641390	2961131228.130060000
358	358	0.0641390	3151055293.334060000
359	359	0.0641390	3353160902.605050000
360	360	0.0641390	3568229368.283300000
361	361	0.0641390	3797092115.319550000
362	362	0.0641390	4040633895.448940000
363	363	0.0641390	4299796207.518900000
364	364	0.0641390	4575580937.193460000
365	365	0.0641390	4869054230.104730000
366	366	0.0641390	5181350613.424490000
367	367	0.0641390	5513677381.789380000
368	368	0.0641390	5867319264.535010000
369	369	0.0641390	6243643392.281940000
370	370	0.0641390	6644104582.073630000
371	371	0.0641390	7070250961.497970000
372	372	0.0641390	7523729953.534460000
373	373	0.0641390	8006294645.263680000
374	374	0.0641390	8519810565.059560000
375	375	0.0641390	9066262894.464070000
376	376	0.0641390	9647764142.624620000
377	377	0.0641390	10266562312.962300000
378	378	0.0641390	10925049593.642300000
379	379	0.0641390	11625771605.442600000
380	380	0.0641390	12371437242.771700000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CNP Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.8

g= 7.1025%
Non-Constant DCF = 9.1548% 9.5363%
Constant DCF = 10.0156%
D= 0.6200
g(e)= 6.41%
P= -22.79

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
381	381	0.0641390	13164929145.880400000
382	382	0.0641390	14009314844.749700000
383	383	0.0641390	14907858617.738000000
384	384	0.0641390	15864034110.830000000
385	385	0.0641390	16881537766.271300000
386	386	0.0641390	17964303112.503500000
387	387	0.0641390	19116515970.640800000
388	388	0.0641390	20342630636.276300000
389	389	0.0641390	21647387099.172000000
390	390	0.0641390	23035829367.404600000
391	391	0.0641390	24513324966.803000000
392	392	0.0641390	26085585691.060700000
393	393	0.0641390	27758689682.741000000
394	394	0.0641390	29539104930.535300000
395	395	0.0641390	31433714273.613200000
396	396	0.0641390	33449842009.726900000
397	397	0.0641390	35595282209.934100000
398	398	0.0641390	37878328849.398100000
399	399	0.0641390	40307807870.749900000
400	400	0.0641390	42893111303.961500000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
1	1	0.0615750	1.788753875
2	2	0.0615750	1.898896395
3	3	0.0615750	2.015820940
4	4	0.0615750	2.139945115
5	5	0.0615750	2.271712235
6	6	0.0617032	2.411884152
7	7	0.0618314	2.561014332
8	8	0.0619596	2.719693764
9	9	0.0620878	2.888553580
10	10	0.0622160	3.068267846
11	11	0.0623442	3.259556572
12	12	0.0624724	3.463188920
13	13	0.0626006	3.679986657
14	14	0.0627288	3.910827843
15	15	0.0628570	4.156650795
16	16	0.0629852	4.418458330
17	17	0.0631134	4.697322320
18	18	0.0632416	4.994388571
19	19	0.0633698	5.310882057
20	20	0.0634980	5.648112539
21	21	0.0636262	6.007480583
22	22	0.0637544	6.390484023
23	23	0.0638826	6.798724892
24	24	0.0640108	7.233916863
25	25	0.0641390	7.697893226
26	26	0.0641390	8.191628580
27	27	0.0641390	8.717031638
28	28	0.0641390	9.276133534
29	29	0.0641390	9.871095680
30	30	0.0641390	10.504218117
31	31	0.0641390	11.177948409
32	32	0.0641390	11.894891104
33	33	0.0641390	12.657817803
34	34	0.0641390	13.469677875
35	35	0.0641390	14.333609860
36	36	0.0641390	15.252953599
37	37	0.0641390	16.231263147
38	38	0.0641390	17.272320514

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
39	39	0.0641390	18.380150284
40	40	0.0641390	19.559035174
41	41	0.0641390	20.813532589
42	42	0.0641390	22.148492243
43	43	0.0641390	23.569074906
44	44	0.0641390	25.080772353
45	45	0.0641390	26.689428599
46	46	0.0641390	28.401262485
47	47	0.0641390	30.222891725
48	48	0.0641390	32.161358485
49	49	0.0641390	34.224156610
50	50	0.0641390	36.419260593
51	51	0.0641390	38.755156401
52	52	0.0641390	41.240874285
53	53	0.0641390	43.886023687
54	54	0.0641390	46.700830388
55	55	0.0641390	49.696176043
56	56	0.0641390	52.883640242
57	57	0.0641390	56.275545282
58	58	0.0641390	59.885003799
59	59	0.0641390	63.725969461
60	60	0.0641390	67.813290909
61	61	0.0641390	72.162769163
62	62	0.0641390	76.791218704
63	63	0.0641390	81.716532480
64	64	0.0641390	86.957751071
65	65	0.0641390	92.535136304
66	66	0.0641390	98.470249578
67	67	0.0641390	104.786035223
68	68	0.0641390	111.506909191
69	69	0.0641390	118.658853451
70	70	0.0641390	126.269516432
71	71	0.0641390	134.368319904
72	72	0.0641390	142.986572722
73	73	0.0641390	152.157591859
74	74	0.0641390	161.916831208
75	75	0.0641390	172.302018638
76	76	0.0641390	183.353301847

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
77	77	0.0641390	195.113403569
78	78	0.0641390	207.627786731
79	79	0.0641390	220.944830208
80	80	0.0641390	235.116015848
81	81	0.0641390	250.196127496
82	82	0.0641390	266.243462778
83	83	0.0641390	283.320058474
84	84	0.0641390	301.491930341
85	85	0.0641390	320.829328323
86	86	0.0641390	341.407008128
87	87	0.0641390	363.304520220
88	88	0.0641390	386.606517352
89	89	0.0641390	411.403081825
90	90	0.0641390	437.790073727
91	91	0.0641390	465.869501521
92	92	0.0641390	495.749916391
93	93	0.0641390	527.546831891
94	94	0.0641390	561.383170500
95	95	0.0641390	597.389738822
96	96	0.0641390	635.705733274
97	97	0.0641390	676.479278192
98	98	0.0641390	719.867998462
99	99	0.0641390	766.039628878
100	100	0.0641390	815.172662579
101	101	0.0641390	867.457041079
102	102	0.0641390	923.094888556
103	103	0.0641390	982.301293236
104	104	0.0641390	1045.305138893
105	105	0.0641390	1112.349989682
106	106	0.0641390	1183.695031727
107	107	0.0641390	1259.616075094
108	108	0.0641390	1340.406620040
109	109	0.0641390	1426.378991641
110	110	0.0641390	1517.865547199
111	111	0.0641390	1615.219961086
112	112	0.0641390	1718.818592005
113	113	0.0641390	1829.061937940
114	114	0.0641390	1946.376184423

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
115	115	0.0641390	2071.214852108
116	116	0.0641390	2204.060550025
117	117	0.0641390	2345.426841272
118	118	0.0641390	2495.860228385
119	119	0.0641390	2655.942266037
120	120	0.0641390	2826.291809253
121	121	0.0641390	3007.567405811
122	122	0.0641390	3200.469842103
123	123	0.0641390	3405.744852275
124	124	0.0641390	3624.186001132
125	125	0.0641390	3856.637751954
126	126	0.0641390	4103.998731066
127	127	0.0641390	4367.225201812
128	128	0.0641390	4647.334761331
129	129	0.0641390	4945.410274449
130	130	0.0641390	5262.604059886
131	131	0.0641390	5600.142344957
132	132	0.0641390	5959.330006000
133	133	0.0641390	6341.555612849
134	134	0.0641390	6748.296796850
135	135	0.0641390	7181.125963178
136	136	0.0641390	7641.716369545
137	137	0.0641390	8131.848594774
138	138	0.0641390	8653.417422279
139	139	0.0641390	9208.439165028
140	140	0.0641390	9799.059460337
141	141	0.0641390	10427.561564601
142	142	0.0641390	11096.375180053
143	143	0.0641390	11808.085847654
144	144	0.0641390	12565.444942435
145	145	0.0641390	13371.380309936
146	146	0.0641390	14229.007584853
147	147	0.0641390	15141.642235645
148	148	0.0641390	16112.812381682
149	149	0.0641390	17146.272432465
150	150	0.0641390	18246.017601654
151	151	0.0641390	19416.299352010
152	152	0.0641390	20661.641830965

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
153	153	0.0641390	21986.859360350
154	154	0.0641390	23397.075047894
155	155	0.0641390	24897.740592455
156	156	0.0641390	26494.657359531
157	157	0.0641390	28193.998808538
158	158	0.0641390	30002.334358549
159	159	0.0641390	31926.654784761
160	160	0.0641390	33974.399243866
161	161	0.0641390	36153.484032801
162	162	0.0641390	38472.333192058
163	163	0.0641390	40939.911071857
164	164	0.0641390	43565.756987092
165	165	0.0641390	46360.022094992
166	166	0.0641390	49333.508638102
167	167	0.0641390	52497.711704253
168	168	0.0641390	55864.863664984
169	169	0.0641390	59447.981464198
170	170	0.0641390	63260.916939868
171	171	0.0641390	67318.410373329
172	172	0.0641390	71636.147473163
173	173	0.0641390	76230.820013984
174	174	0.0641390	81120.190364528
175	175	0.0641390	86323.160154517
176	176	0.0641390	91859.843345743
177	177	0.0641390	97751.643989865
178	178	0.0641390	104021.338973513
179	179	0.0641390	110693.166070581
180	180	0.0641390	117792.917642112
181	181	0.0641390	125348.040345998
182	182	0.0641390	133387.741241963
183	183	0.0641390	141943.100702020
184	184	0.0641390	151047.192562890
185	185	0.0641390	160735.211984884
186	186	0.0641390	171044.611511521
187	187	0.0641390	182015.245855890
188	188	0.0641390	193689.525973454
189	189	0.0641390	206112.583016943
190	190	0.0641390	219332.442807147

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
191	191	0.0641390	233400.211494104
192	192	0.0641390	248370.273126403
193	193	0.0641390	264300.499892403
194	194	0.0641390	281252.475846104
195	195	0.0641390	299291.734982591
196	196	0.0641390	318488.014583393
197	197	0.0641390	338915.524811175
198	198	0.0641390	360653.235595960
199	199	0.0641390	383785.181921964
200	200	0.0641390	408400.788695227
201	201	0.0641390	434595.216447927
202	202	0.0641390	462469.729215849
203	203	0.0641390	492132.086011138
204	204	0.0641390	523696.957403746
205	205	0.0641390	557286.368821995
206	206	0.0641390	593030.172286014
207	207	0.0641390	631066.548397692
208	208	0.0641390	671542.540527779
209	209	0.0641390	714614.623265227
210	210	0.0641390	760449.307326313
211	211	0.0641390	809223.783262047
212	212	0.0641390	861126.606452340
213	213	0.0641390	916358.426035032
214	214	0.0641390	975132.760587715
215	215	0.0641390	1037676.823561030
216	216	0.0641390	1104232.401654450
217	217	0.0641390	1175056.789530240
218	218	0.0641390	1250423.784479020
219	219	0.0641390	1330624.744882250
220	220	0.0641390	1415969.716563450
221	221	0.0641390	1506788.631382470
222	222	0.0641390	1603432.582706460
223	223	0.0641390	1706275.182688240
224	224	0.0641390	1815714.006599300
225	225	0.0641390	1932172.129800730
226	226	0.0641390	2056099.763294150
227	227	0.0641390	2187975.994175150
228	228	0.0641390	2328310.637717760

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
229	229	0.0641390	2477646.208249810
230	230	0.0641390	2636560.016438320
231	231	0.0641390	2805666.401092720
232	232	0.0641390	2985619.104113690
233	233	0.0641390	3177113.797769020
234	234	0.0641390	3380890.774066370
235	235	0.0641390	3597737.806619830
236	236	0.0641390	3828493.196073770
237	237	0.0641390	4074049.010857220
238	238	0.0641390	4335354.535797080
239	239	0.0641390	4613419.941922000
240	240	0.0641390	4909320.191643920
241	241	0.0641390	5224199.194414050
242	242	0.0641390	5559274.228918740
243	243	0.0641390	5915840.648910480
244	244	0.0641390	6295276.890866450
245	245	0.0641390	6699049.802833340
246	246	0.0641390	7128720.315059050
247	247	0.0641390	7585949.474333210
248	248	0.0641390	8072504.865364410
249	249	0.0641390	8590267.444018260
250	250	0.0641390	9141238.808832720
251	251	0.0641390	9727548.938921230
252	252	0.0641390	10351464.428177500
253	253	0.0641390	11015397.247614100
254	254	0.0641390	11721914.069708800
255	255	0.0641390	12473746.190805600
256	256	0.0641390	13273800.089928700
257	257	0.0641390	14125168.664828600
258	258	0.0641390	15031143.188696800
259	259	0.0641390	15995226.033773400
260	260	0.0641390	17021144.211033500
261	261	0.0641390	18112863.778296400
262	262	0.0641390	19274605.172457100
263	263	0.0641390	20510859.525110900
264	264	0.0641390	21826406.024648300
265	265	0.0641390	23226330.391935500
266	266	0.0641390	24716044.541008600

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
267	267	0.0641390	26301307.500784900
268	268	0.0641390	27988247.678672300
269	269	0.0641390	29783386.552144900
270	270	0.0641390	31693663.879873300
271	271	0.0641390	33726464.529872200
272	272	0.0641390	35889647.028378700
273	273	0.0641390	38191573.939828200
274	274	0.0641390	40641144.195372800
275	275	0.0641390	43247827.494917500
276	276	0.0641390	46021700.915672100
277	277	0.0641390	48973487.868736900
278	278	0.0641390	52114599.554328400
279	279	0.0641390	55457179.075901000
280	280	0.0641390	59014148.383706000
281	281	0.0641390	62799258.229264400
282	282	0.0641390	66827141.323871300
283	283	0.0641390	71113368.906634300
284	284	0.0641390	75674510.940730800
285	285	0.0641390	80528200.170594600
286	286	0.0641390	85693200.287667900
287	287	0.0641390	91189478.468237500
288	288	0.0641390	97038282.563778100
289	289	0.0641390	103262223.242208000
290	290	0.0641390	109885361.397604000
291	291	0.0641390	116933301.166293000
292	292	0.0641390	124433288.908900000
293	293	0.0641390	132414318.541013000
294	294	0.0641390	140907243.619652000
295	295	0.0641390	149944896.618852000
296	296	0.0641390	159562215.855470000
297	297	0.0641390	169796380.555887000
298	298	0.0641390	180686954.585753000
299	299	0.0641390	192276039.398427000
300	300	0.0641390	204608436.793370000
301	301	0.0641390	217731822.113706000
302	302	0.0641390	231696928.552513000
303	303	0.0641390	246557743.280323000
304	304	0.0641390	262371716.152067000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
305	305	0.0641390	279199981.800266000
306	306	0.0641390	297107595.973069000
307	307	0.0641390	316163787.030777000
308	308	0.0641390	336442223.573117000
309	309	0.0641390	358021299.231859000
310	310	0.0641390	380984435.729755000
311	311	0.0641390	405420405.377389000
312	312	0.0641390	431423674.254652000
313	313	0.0641390	459094767.403548000
314	314	0.0641390	488540657.444102000
315	315	0.0641390	519875178.115721000
316	316	0.0641390	553219464.342692000
317	317	0.0641390	588702420.525048000
318	318	0.0641390	626461218.865154000
319	319	0.0641390	666641829.656476000
320	320	0.0641390	709399585.584553000
321	321	0.0641390	754899782.221679000
322	322	0.0641390	803318317.036732000
323	323	0.0641390	854842369.390467000
324	324	0.0641390	909671124.145042000
325	325	0.0641390	968016541.685157000
326	326	0.0641390	1030104177.327590000
327	327	0.0641390	1096174053.286860000
328	328	0.0641390	1166481586.567940000
329	329	0.0641390	1241298576.373040000
330	330	0.0641390	1320914254.839810000
331	331	0.0641390	1405636405.172720000
332	332	0.0641390	1495792551.490390000
333	333	0.0641390	1591731224.988600000
334	334	0.0641390	1693823311.313630000
335	335	0.0641390	1802463484.354910000
336	336	0.0641390	1918071731.999720000
337	337	0.0641390	2041094979.748290000
338	338	0.0641390	2172008818.465960000
339	339	0.0641390	2311319342.951730000
340	340	0.0641390	2459565108.430770000
341	341	0.0641390	2617319212.534450000
342	342	0.0641390	2785191510.816550000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
343	343	0.0641390	2963830974.370480000
344	344	0.0641390	3153928198.661840000
345	345	0.0641390	3356218073.274950000
346	346	0.0641390	3571482622.894400000
347	347	0.0641390	3800554030.504360000
348	348	0.0641390	4044317854.492890000
349	349	0.0641390	4303716452.098260000
350	350	0.0641390	4579752622.431730000
351	351	0.0641390	4873493483.160210000
352	352	0.0641390	5186074595.835690000
353	353	0.0641390	5518704355.819110000
354	354	0.0641390	5872668663.769790000
355	355	0.0641390	6249335896.759540000
356	356	0.0641390	6650162198.229260000
357	357	0.0641390	7076697107.238100000
358	358	0.0641390	7530589548.767210000
359	359	0.0641390	8013594208.235760000
360	360	0.0641390	8527578314.872090000
361	361	0.0641390	9074528860.163780000
362	362	0.0641390	9656560279.291970000
363	363	0.0641390	10275922625.245400000
364	364	0.0641390	10935010267.214200000
365	365	0.0641390	11636371146.890000000
366	366	0.0641390	12382716628.456400000
367	367	0.0641390	13176931980.347700000
368	368	0.0641390	14022087529.298000000
369	369	0.0641390	14921450529.799800000
370	370	0.0641390	15878497794.857900000
371	371	0.0641390	16896929136.867900000
372	372	0.0641390	17980681670.579200000
373	373	0.0641390	19133945033.436700000
374	374	0.0641390	20361177582.139100000
375	375	0.0641390	21667123628.029900000
376	376	0.0641390	23056831777.949300000
377	377	0.0641390	24535674451.449600000
378	378	0.0641390	26109368649.826600000
379	379	0.0641390	27783998057.256200000
380	380	0.0641390	29566036559.476400000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
CMS Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.9

g= 6.1575%
Non-Constant DCF = 9.2350% 9.3044%
Constant DCF = 9.1247%
D= 1.6850
g(e)= 6.41%
P= -60.29

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
381	381	0.0641390	31462373270.933700000
382	382	0.0641390	33480339167.148000000
383	383	0.0641390	35627735425.249300000
384	384	0.0641390	37912863582.250700000
385	385	0.0641390	40344557627.641900000
386	386	0.0641390	42932218154.371600000
387	387	0.0641390	45685848700.239800000
388	388	0.0641390	48616094420.191900000
389	389	0.0641390	51734283239.015400000
390	390	0.0641390	55052469643.531500000
391	391	0.0641390	58583481283.573600000
392	392	0.0641390	62340968561.908400000
393	393	0.0641390	66339457404.805600000
394	394	0.0641390	70594405417.259900000
395	395	0.0641390	75122261639.955000000
396	396	0.0641390	79940530138.980200000
397	397	0.0641390	85067837674.129800000
398	398	0.0641390	90524005707.380900000
399	399	0.0641390	96330127029.924600000
400	400	0.0641390	102508647303.980000000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
1	1	0.0688750	2.255326250
2	2	0.0688750	2.410661845
3	3	0.0688750	2.576696180
4	4	0.0688750	2.754166129
5	5	0.0688750	2.943859322
6	6	0.0686382	3.145920530
7	7	0.0684014	3.361105906
8	8	0.0681646	3.590214357
9	9	0.0679278	3.834089737
10	10	0.0676910	4.093623128
11	11	0.0674542	4.369755230
12	12	0.0672174	4.663478851
13	13	0.0669806	4.975841506
14	14	0.0667438	5.307948129
15	15	0.0665070	5.660963897
16	16	0.0662702	6.036117180
17	17	0.0660334	6.434702605
18	18	0.0657966	6.858084256
19	19	0.0655598	7.307699001
20	20	0.0653230	7.785059951
21	21	0.0650862	8.291760066
22	22	0.0648494	8.829475896
23	23	0.0646126	9.399971477
24	24	0.0643758	10.005102370
25	25	0.0641390	10.646819865
26	26	0.0641390	11.329696493
27	27	0.0641390	12.056372162
28	28	0.0641390	12.829656099
29	29	0.0641390	13.652537712
30	30	0.0641390	14.528198148
31	31	0.0641390	15.460022589
32	32	0.0641390	16.451613340
33	33	0.0641390	17.506803754
34	34	0.0641390	18.629673050
35	35	0.0641390	19.824562086
36	36	0.0641390	21.096090138
37	37	0.0641390	22.449172757
38	38	0.0641390	23.889040775

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
39	39	0.0641390	25.421260521
40	40	0.0641390	27.051755345
41	41	0.0641390	28.786828514
42	42	0.0641390	30.633187583
43	43	0.0641390	32.597970319
44	44	0.0641390	34.688772300
45	45	0.0641390	36.913676280
46	46	0.0641390	39.281283427
47	47	0.0641390	41.800746585
48	48	0.0641390	44.481805649
49	49	0.0641390	47.334825224
50	50	0.0641390	50.370834688
51	51	0.0641390	53.601570834
52	52	0.0641390	57.039523241
53	53	0.0641390	60.697982558
54	54	0.0641390	64.591091883
55	55	0.0641390	68.733901439
56	56	0.0641390	73.142426753
57	57	0.0641390	77.833710576
58	58	0.0641390	82.825888762
59	59	0.0641390	88.138260381
60	60	0.0641390	93.791362329
61	61	0.0641390	99.807048714
62	62	0.0641390	106.208575349
63	63	0.0641390	113.020689652
64	64	0.0641390	120.269726313
65	65	0.0641390	127.983709106
66	66	0.0641390	136.192459222
67	67	0.0641390	144.927710554
68	68	0.0641390	154.223232376
69	69	0.0641390	164.114959890
70	70	0.0641390	174.641133147
71	71	0.0641390	185.842444877
72	72	0.0641390	197.762197802
73	73	0.0641390	210.446472039
74	74	0.0641390	223.944303239
75	75	0.0641390	238.307872150
76	76	0.0641390	253.592706345

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
77	77	0.0641390	269.857894877
78	78	0.0641390	287.166316718
79	79	0.0641390	305.584883833
80	80	0.0641390	325.184799855
81	81	0.0641390	346.041835350
82	82	0.0641390	368.236620733
83	83	0.0641390	391.854957976
84	84	0.0641390	416.988152305
85	85	0.0641390	443.733365173
86	86	0.0641390	472.193989876
87	87	0.0641390	502.480051254
88	88	0.0641390	534.708631032
89	89	0.0641390	569.004320443
90	90	0.0641390	605.499701880
91	91	0.0641390	644.335861443
92	92	0.0641390	685.662934353
93	93	0.0641390	729.640685361
94	94	0.0641390	776.439126371
95	95	0.0641390	826.239173685
96	96	0.0641390	879.233347400
97	97	0.0641390	935.626515664
98	98	0.0641390	995.636686669
99	99	0.0641390	1059.495851438
100	100	0.0641390	1127.450880671
101	101	0.0641390	1199.764479116
102	102	0.0641390	1276.716201146
103	103	0.0641390	1358.603531478
104	104	0.0641390	1445.743035208
105	105	0.0641390	1538.471581609
106	106	0.0641390	1637.147646420
107	107	0.0641390	1742.152697663
108	108	0.0641390	1853.892670347
109	109	0.0641390	1972.799535757
110	110	0.0641390	2099.332971393
111	111	0.0641390	2233.982138021
112	112	0.0641390	2377.267570701
113	113	0.0641390	2529.743191105
114	114	0.0641390	2691.998448897

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
115	115	0.0641390	2864.660600469
116	116	0.0641390	3048.397133826
117	117	0.0641390	3243.918349000
118	118	0.0641390	3451.980103973
119	119	0.0641390	3673.386736723
120	120	0.0641390	3908.994174677
121	121	0.0641390	4159.713243613
122	122	0.0641390	4426.513188784
123	123	0.0641390	4710.425421888
124	124	0.0641390	5012.547508362
125	125	0.0641390	5334.047410417
126	126	0.0641390	5676.168002221
127	127	0.0641390	6040.231874677
128	128	0.0641390	6427.646448376
129	129	0.0641390	6839.909414492
130	130	0.0641390	7278.614524650
131	131	0.0641390	7745.457752144
132	132	0.0641390	8242.243848342
133	133	0.0641390	8770.893319601
134	134	0.0641390	9333.449851681
135	135	0.0641390	9932.088210349
136	136	0.0641390	10569.122648727
137	137	0.0641390	11247.015853870
138	138	0.0641390	11968.388467177
139	139	0.0641390	12736.029215426
140	140	0.0641390	13552.905691609
141	141	0.0641390	14422.175827233
142	142	0.0641390	15347.200100448
143	143	0.0641390	16331.554527191
144	144	0.0641390	17379.044485569
145	145	0.0641390	18493.719426924
146	146	0.0641390	19679.888530453
147	147	0.0641390	20942.137361899
148	148	0.0641390	22285.345600712
149	149	0.0641390	23714.705904219
150	150	0.0641390	25235.743981715
151	151	0.0641390	26854.339956092
152	152	0.0641390	28576.751095585

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
153	153	0.0641390	30409.636003500
154	154	0.0641390	32360.080359459
155	155	0.0641390	34435.624311652
156	156	0.0641390	36644.291626014
157	157	0.0641390	38994.620704988
158	158	0.0641390	41495.697595814
159	159	0.0641390	44157.191115928
160	160	0.0641390	46989.390231271
161	161	0.0641390	50003.243832017
162	162	0.0641390	53210.403059459
163	163	0.0641390	56623.266347716
164	164	0.0641390	60255.027354363
165	165	0.0641390	64119.725965287
166	166	0.0641390	68232.302570946
167	167	0.0641390	72608.655823850
168	168	0.0641390	77265.704100556
169	169	0.0641390	82221.450905771
170	170	0.0641390	87495.054471411
171	171	0.0641390	93106.901819680
172	172	0.0641390	99078.687576473
173	173	0.0641390	105433.497839807
174	174	0.0641390	112195.899427480
175	175	0.0641390	119392.034848990
176	176	0.0641390	127049.723368866
177	177	0.0641390	135198.568552096
178	178	0.0641390	143870.072707415
179	179	0.0641390	153097.758670878
180	180	0.0641390	162917.299400505
181	181	0.0641390	173366.655883008
182	182	0.0641390	184486.223885712
183	183	0.0641390	196318.990121012
184	184	0.0641390	208910.698427055
185	185	0.0641390	222310.026607093
186	186	0.0641390	236568.774611142
187	187	0.0641390	251742.064787428
188	188	0.0641390	267888.554977756
189	189	0.0641390	285070.665280625
190	190	0.0641390	303354.819358692

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
191	191	0.0641390	322811.701223469
192	192	0.0641390	343516.528489938
193	193	0.0641390	365549.343157451
194	194	0.0641390	388995.321041032
195	195	0.0641390	413945.101049296
196	196	0.0641390	440495.135581947
197	197	0.0641390	468748.063401408
198	198	0.0641390	498813.106420092
199	199	0.0641390	530806.491937210
200	200	0.0641390	564851.901957438
201	201	0.0641390	601080.951328450
202	202	0.0641390	639633.696545715
203	203	0.0641390	680659.177191550
204	204	0.0641390	724315.992101528
205	205	0.0641390	770772.912485655
206	206	0.0641390	820209.534374529
207	207	0.0641390	872816.972912761
208	208	0.0641390	928798.601183699
209	209	0.0641390	988370.836421647
210	210	0.0641390	1051763.976650970
211	211	0.0641390	1119223.090986410
212	212	0.0641390	1191008.967036410
213	213	0.0641390	1267399.119071930
214	214	0.0641390	1348688.860858250
215	215	0.0641390	1435192.447297180
216	216	0.0641390	1527244.289293020
217	217	0.0641390	1625200.246538890
218	218	0.0641390	1729439.003221120
219	219	0.0641390	1840363.531959930
220	220	0.0641390	1958402.651645880
221	221	0.0641390	2084012.685194360
222	222	0.0641390	2217679.223626960
223	223	0.0641390	2359919.003299160
224	224	0.0641390	2511281.903531650
225	225	0.0641390	2672353.072367740
226	226	0.0641390	2843755.188674830
227	227	0.0641390	3026150.869334730
228	228	0.0641390	3220245.230829010

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
229	229	0.0641390	3426788.615121730
230	230	0.0641390	3646579.490377780
231	231	0.0641390	3880467.537730360
232	232	0.0641390	4129356.936030790
233	233	0.0641390	4394209.857278920
234	234	0.0641390	4676050.186247020
235	235	0.0641390	4975967.478676780
236	236	0.0641390	5295121.173351090
237	237	0.0641390	5634745.074324130
238	238	0.0641390	5996152.120637200
239	239	0.0641390	6380739.461959510
240	240	0.0641390	6789993.859775650
241	241	0.0641390	7225497.434999890
242	242	0.0641390	7688933.784236890
243	243	0.0641390	8182094.488333360
244	244	0.0641390	8706886.038381900
245	245	0.0641390	9265337.205951980
246	246	0.0641390	9859606.886040270
247	247	0.0641390	10491992.443060200
248	248	0.0641390	11164938.592135100
249	249	0.0641390	11881046.850029000
250	250	0.0641390	12643085.592250400
251	251	0.0641390	13454000.755209500
252	252	0.0641390	14316927.224800900
253	253	0.0641390	15235200.955439000
254	254	0.0641390	16212371.866396600
255	255	0.0641390	17252217.565301800
256	256	0.0641390	18358757.951847000
257	257	0.0641390	19536270.758164900
258	258	0.0641390	20789308.085949900
259	259	0.0641390	22122714.004253400
260	260	0.0641390	23541643.275985400
261	261	0.0641390	25051581.285514600
262	262	0.0641390	26658365.244406500
263	263	0.0641390	28368206.757276000
264	264	0.0641390	30187715.834991400
265	265	0.0641390	32123926.448063600
266	266	0.0641390	34184323.719002300

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
267	267	0.0641390	36376872.858765500
268	268	0.0641390	38710049.959163300
269	269	0.0641390	41192874.760257000
270	270	0.0641390	43834945.519426900
271	271	0.0641390	46646476.116908300
272	272	0.0641390	49638335.541240300
273	273	0.0641390	52822089.907272200
274	274	0.0641390	56210047.169164900
275	275	0.0641390	59815304.701239200
276	276	0.0641390	63651799.930614600
277	277	0.0641390	67734364.217374800
278	278	0.0641390	72078780.190555400
279	279	0.0641390	76701842.761605600
280	280	0.0641390	81621424.051193200
281	281	0.0641390	86856542.480352300
282	282	0.0641390	92427436.293069200
283	283	0.0641390	98355641.794535300
284	284	0.0641390	104664076.607525000
285	285	0.0641390	111377128.268757000
286	286	0.0641390	118520748.507738000
287	287	0.0641390	126122553.572563000
288	288	0.0641390	134211930.990510000
289	289	0.0641390	142820153.176155000
290	290	0.0641390	151980498.326209000
291	291	0.0641390	161728379.068418000
292	292	0.0641390	172101479.361891000
293	293	0.0641390	183139900.178071000
294	294	0.0641390	194886314.525550000
295	295	0.0641390	207386132.418015000
296	296	0.0641390	220687676.423087000
297	297	0.0641390	234842368.470682000
298	298	0.0641390	249904928.643084000
299	299	0.0641390	265933586.715217000
300	300	0.0641390	282990307.262901000
301	301	0.0641390	301141029.209338000
302	302	0.0641390	320455920.735868000
303	303	0.0641390	341009650.542460000
304	304	0.0641390	362881676.506578000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
305	305	0.0641390	386156552.856349000
306	306	0.0641390	410924257.045520000
307	307	0.0641390	437280537.593850000
308	308	0.0641390	465327284.237653000
309	309	0.0641390	495172921.821422000
310	310	0.0641390	526932829.453296000
311	311	0.0641390	560729786.544730000
312	312	0.0641390	596694447.458728000
313	313	0.0641390	634965846.601542000
314	314	0.0641390	675691935.910465000
315	315	0.0641390	719030156.815560000
316	316	0.0641390	765148048.886463000
317	317	0.0641390	814223897.517189000
318	318	0.0641390	866447423.152817000
319	319	0.0641390	922020514.722499000
320	320	0.0641390	981158010.114139000
321	321	0.0641390	1044088526.707970000
322	322	0.0641390	1111055345.179720000
323	323	0.0641390	1182317349.990100000
324	324	0.0641390	1258150030.196290000
325	325	0.0641390	1338846544.454560000
326	326	0.0641390	1424718854.331120000
327	327	0.0641390	1516098930.302370000
328	328	0.0641390	1613340035.106870000
329	329	0.0641390	1716818089.410240000
330	330	0.0641390	1826933125.062500000
331	331	0.0641390	1944110831.565850000
332	332	0.0641390	2068804201.731440000
333	333	0.0641390	2201495282.886960000
334	334	0.0641390	2342697040.404940000
335	335	0.0641390	2492955340.755940000
336	336	0.0641390	2652851061.752870000
337	337	0.0641390	2823002338.144300000
338	338	0.0641390	3004066951.237910000
339	339	0.0641390	3196744871.792070000
340	340	0.0641390	3401780966.006040000
341	341	0.0641390	3619967875.069660000
342	342	0.0641390	3852149079.404630000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
343	343	0.0641390	4099222159.443160000
344	344	0.0641390	4362142265.549840000
345	345	0.0641390	4641925810.500870000
346	346	0.0641390	4939654398.795300000
347	347	0.0641390	5256479007.988480000
348	348	0.0641390	5593624438.212150000
349	349	0.0641390	5952394047.082400000
350	350	0.0641390	6334174788.299970000
351	351	0.0641390	6740442573.421510000
352	352	0.0641390	7172767977.529580000
353	353	0.0641390	7632822310.858730000
354	354	0.0641390	8122384079.849810000
355	355	0.0641390	8643345862.609940000
356	356	0.0641390	9197721625.357780000
357	357	0.0641390	9787654508.138480000
358	358	0.0641390	10415425109.906700000
359	359	0.0641390	11083460305.007000000
360	360	0.0641390	11794342625.134100000
361	361	0.0641390	12550820243.044000000
362	362	0.0641390	13355817596.609100000
363	363	0.0641390	14212446694.291100000
364	364	0.0641390	15124019145.735400000
365	365	0.0641390	16094058963.996100000
366	366	0.0641390	17126316188.882800000
367	367	0.0641390	18224781384.096700000
368	368	0.0641390	19393701064.197300000
369	369	0.0641390	20637594111.041300000
370	370	0.0641390	21961269243.154400000
371	371	0.0641390	23369843605.572400000
372	372	0.0641390	24868762552.016700000
373	373	0.0641390	26463820695.878400000
374	374	0.0641390	28161184311.392700000
375	375	0.0641390	29967415171.602300000
376	376	0.0641390	31889495915.264900000
377	377	0.0641390	33934857040.769000000
378	378	0.0641390	36111405631.413300000
379	379	0.0641390	38427555923.097600000
380	380	0.0641390	40892261832.594700000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EVRG Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.10

g= 6.8875%
Non-Constant DCF = 10.1347% 10.4915%
Constant DCF = 10.7869%
D= 2.1100
g(e)= 6.41%
P= -57.84

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
381	381	0.0641390	43515051572.155600000
382	382	0.0641390	46306064484.259700000
383	383	0.0641390	49276090238.911200000
384	384	0.0641390	52436610545.011700000
385	385	0.0641390	55799843537.058600000
386	386	0.0641390	59378791008.764500000
387	387	0.0641390	63187288676.193100000
388	388	0.0641390	67240059664.725000000
389	389	0.0641390	71552771426.624500000
390	390	0.0641390	76142096309.243400000
391	391	0.0641390	81025776008.011200000
392	392	0.0641390	86222690153.375900000
393	393	0.0641390	91752929296.845200000
394	394	0.0641390	97637872578.280400000
395	395	0.0641390	103900270374.695000000
396	396	0.0641390	110564332250.068000000
397	397	0.0641390	117655820546.168000000
398	398	0.0641390	125202149976.205000000
399	399	0.0641390	133232493606.324000000
400	400	0.0641390	141777895634.643000000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
1	1	0.0408750	1.660195625
2	2	0.0408750	1.728056121
3	3	0.0408750	1.798690415
4	4	0.0408750	1.872211886
5	5	0.0408750	1.948738547
6	6	0.0420382	2.030660010
7	7	0.0432014	2.118387370
8	8	0.0443646	2.212368786
9	9	0.0455278	2.313093080
10	10	0.0466910	2.421093722
11	11	0.0478542	2.536953242
12	12	0.0490174	2.661308115
13	13	0.0501806	2.794854178
14	14	0.0513438	2.938352641
15	15	0.0525070	3.092636758
16	16	0.0536702	3.258619231
17	17	0.0548334	3.437300449
18	18	0.0559966	3.629777639
19	19	0.0571598	3.837255063
20	20	0.0583230	4.061055357
21	21	0.0594862	4.302632184
22	22	0.0606494	4.563584330
23	23	0.0618126	4.845671439
24	24	0.0629758	5.150831583
25	25	0.0641390	5.481200890
26	26	0.0641390	5.832759762
27	27	0.0641390	6.206867277
28	28	0.0641390	6.604969683
29	29	0.0641390	7.028605988
30	30	0.0641390	7.479413912
31	31	0.0641390	7.959136217
32	32	0.0641390	8.469627441
33	33	0.0641390	9.012861074
34	34	0.0641390	9.590937181
35	35	0.0641390	10.206090526
36	36	0.0641390	10.860699205
37	37	0.0641390	11.557293846
38	38	0.0641390	12.298567386

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
39	39	0.0641390	13.087385488
40	40	0.0641390	13.926797613
41	41	0.0641390	14.820048811
42	42	0.0641390	15.770592269
43	43	0.0641390	16.782102656
44	44	0.0641390	17.858490331
45	45	0.0641390	19.003916461
46	46	0.0641390	20.222809104
47	47	0.0641390	21.519880330
48	48	0.0641390	22.900144439
49	49	0.0641390	24.368937340
50	50	0.0641390	25.931937182
51	51	0.0641390	27.595186309
52	52	0.0641390	29.365114610
53	53	0.0641390	31.248564384
54	54	0.0641390	33.252816787
55	55	0.0641390	35.385619982
56	56	0.0641390	37.655219090
57	57	0.0641390	40.070388070
58	58	0.0641390	42.640463629
59	59	0.0641390	45.375381324
60	60	0.0641390	48.285713970
61	61	0.0641390	51.382712509
62	62	0.0641390	54.678349511
63	63	0.0641390	58.185365451
64	64	0.0641390	61.917317968
65	65	0.0641390	65.888634276
66	66	0.0641390	70.114666933
67	67	0.0641390	74.611753198
68	68	0.0641390	79.397278184
69	69	0.0641390	84.489742069
70	70	0.0641390	89.908831615
71	71	0.0641390	95.675496272
72	72	0.0641390	101.812029168
73	73	0.0641390	108.342153292
74	74	0.0641390	115.291113200
75	75	0.0641390	122.685772610
76	76	0.0641390	130.554718253

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
77	77	0.0641390	138.928370386
78	78	0.0641390	147.839100388
79	79	0.0641390	157.321355911
80	80	0.0641390	167.411794043
81	81	0.0641390	178.149423023
82	82	0.0641390	189.575753039
83	83	0.0641390	201.734956704
84	84	0.0641390	214.674039817
85	85	0.0641390	228.443023086
86	86	0.0641390	243.095135495
87	87	0.0641390	258.687020085
88	88	0.0641390	275.278952925
89	89	0.0641390	292.935076135
90	90	0.0641390	311.723645845
91	91	0.0641390	331.717296068
92	92	0.0641390	352.993319491
93	93	0.0641390	375.633966279
94	94	0.0641390	399.726762041
95	95	0.0641390	425.364846195
96	96	0.0641390	452.647332029
97	97	0.0641390	481.679689861
98	98	0.0641390	512.574154772
99	99	0.0641390	545.450160491
100	100	0.0641390	580.434801112
101	101	0.0641390	617.663322417
102	102	0.0641390	657.279644722
103	103	0.0641390	699.436919251
104	104	0.0641390	744.298120199
105	105	0.0641390	792.036674765
106	106	0.0641390	842.837133601
107	107	0.0641390	896.895884256
108	108	0.0641390	954.421910386
109	109	0.0641390	1015.637599653
110	110	0.0641390	1080.779603448
111	111	0.0641390	1150.099751750
112	112	0.0641390	1223.866026668
113	113	0.0641390	1302.363598421
114	114	0.0641390	1385.895927767

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
115	115	0.0641390	1474.785939142
116	116	0.0641390	1569.377269039
117	117	0.0641390	1670.035594460
118	118	0.0641390	1777.150046572
119	119	0.0641390	1891.134715038
120	120	0.0641390	2012.430248825
121	121	0.0641390	2141.505559695
122	122	0.0641390	2278.859634951
123	123	0.0641390	2425.023466459
124	124	0.0641390	2580.562103379
125	125	0.0641390	2746.076836576
126	126	0.0641390	2922.207523122
127	127	0.0641390	3109.635059899
128	128	0.0641390	3309.084015848
129	129	0.0641390	3521.325433054
130	130	0.0641390	3747.179807489
131	131	0.0641390	3987.520260938
132	132	0.0641390	4243.275916360
133	133	0.0641390	4515.435489756
134	134	0.0641390	4805.051112405
135	135	0.0641390	5113.242398259
136	136	0.0641390	5441.200772216
137	137	0.0641390	5790.194076003
138	138	0.0641390	6161.571469476
139	139	0.0641390	6556.768646288
140	140	0.0641390	6977.313384081
141	141	0.0641390	7424.831450663
142	142	0.0641390	7901.052889000
143	143	0.0641390	8407.818705325
144	144	0.0641390	8947.087986215
145	145	0.0641390	9520.945472144
146	146	0.0641390	10131.609616805
147	147	0.0641390	10781.441163345
148	148	0.0641390	11472.952270670
149	149	0.0641390	12208.816225106
150	150	0.0641390	12991.877774954
151	151	0.0641390	13825.164127890
152	152	0.0641390	14711.896653736

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
153	153	0.0641390	15655.503337828
154	154	0.0641390	16659.632033135
155	155	0.0641390	17728.164562352
156	156	0.0641390	18865.231724489
157	157	0.0641390	20075.229263975
158	158	0.0641390	21362.834863989
159	159	0.0641390	22733.026229743
160	160	0.0641390	24191.100331602
161	161	0.0641390	25742.693882435
162	162	0.0641390	27393.805128370
163	163	0.0641390	29150.817037184
164	164	0.0641390	31020.521973975
165	165	0.0641390	33010.147959503
166	166	0.0641390	35127.386612723
167	167	0.0641390	37380.422885517
168	168	0.0641390	39777.966704589
169	169	0.0641390	42329.286642833
170	170	0.0641390	45044.245750359
171	171	0.0641390	47933.339683679
172	172	0.0641390	51007.737280465
173	173	0.0641390	54279.323736726
174	174	0.0641390	57760.746553341
175	175	0.0641390	61465.464429541
176	176	0.0641390	65407.799292385
177	177	0.0641390	69602.991663343
178	178	0.0641390	74067.259576052
179	179	0.0641390	78817.861272987
180	180	0.0641390	83873.161923443
181	181	0.0641390	89252.704620736
182	182	0.0641390	94977.285933104
183	183	0.0641390	101069.036300361
184	184	0.0641390	107551.505587120
185	185	0.0641390	114449.754123311
186	186	0.0641390	121790.449583952
187	187	0.0641390	129601.970082696
188	188	0.0641390	137914.513877689
189	189	0.0641390	146760.216113866
190	190	0.0641390	156173.273052975

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
191	191	0.0641390	166190.074271598
192	192	0.0641390	176849.343338221
193	193	0.0641390	188192.287513195
194	194	0.0641390	200262.757050311
195	195	0.0641390	213107.414715813
196	196	0.0641390	226775.916180201
197	197	0.0641390	241321.101980191
198	198	0.0641390	256799.201792921
199	199	0.0641390	273270.051812106
200	200	0.0641390	290797.326066492
201	201	0.0641390	309448.782574848
202	202	0.0641390	329296.525289093
203	203	0.0641390	350417.282838211
204	204	0.0641390	372892.705150515
205	205	0.0641390	396809.679100982
206	206	0.0641390	422260.664403902
207	207	0.0641390	449344.051049341
208	208	0.0641390	478164.539665247
209	209	0.0641390	508833.546275593
210	210	0.0641390	541469.633019326
211	211	0.0641390	576198.966495199
212	212	0.0641390	613155.805504397
213	213	0.0641390	652483.020076501
214	214	0.0641390	694332.643785265
215	215	0.0641390	738866.461489392
216	216	0.0641390	786256.634770424
217	217	0.0641390	836686.367485619
218	218	0.0641390	890350.614008725
219	219	0.0641390	947456.832896633
220	220	0.0641390	1008225.788895480
221	221	0.0641390	1072892.406386610
222	222	0.0641390	1141706.677571790
223	223	0.0641390	1214934.628908460
224	224	0.0641390	1292859.349531230
225	225	0.0641390	1375782.085635380
226	226	0.0641390	1464023.405052930
227	227	0.0641390	1557924.436523610
228	228	0.0641390	1657848.188451370

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
229	229	0.0641390	1764180.952244690
230	230	0.0641390	1877333.795665740
231	231	0.0641390	1997744.151961520
232	232	0.0641390	2125877.510920300
233	233	0.0641390	2262229.218390800
234	234	0.0641390	2407326.391220710
235	235	0.0641390	2561729.955017590
236	236	0.0641390	2726036.812609670
237	237	0.0641390	2900882.151589640
238	238	0.0641390	3086941.899862110
239	239	0.0641390	3284935.338687390
240	240	0.0641390	3495627.883323370
241	241	0.0641390	3719834.042015120
242	242	0.0641390	3958420.564771120
243	243	0.0641390	4212309.794098930
244	244	0.0641390	4482483.230653810
245	245	0.0641390	4769985.327584570
246	246	0.0641390	5075927.528244960
247	247	0.0641390	5401492.562880040
248	248	0.0641390	5747939.020897770
249	249	0.0641390	6116606.216401630
250	250	0.0641390	6508919.365793750
251	251	0.0641390	6926395.097464470
252	252	0.0641390	7370647.314867960
253	253	0.0641390	7843393.435649880
254	254	0.0641390	8346461.030946460
255	255	0.0641390	8881794.890521870
256	256	0.0641390	9451464.541056500
257	257	0.0641390	10057672.246651000
258	258	0.0641390	10702761.522474700
259	259	0.0641390	11389226.194471400
260	260	0.0641390	12119720.040145300
261	261	0.0641390	12897067.047698400
262	262	0.0641390	13724272.333177800
263	263	0.0641390	14604533.757839500
264	264	0.0641390	15541254.290637200
265	265	0.0641390	16538055.163630200
266	266	0.0641390	17598789.871165700

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
267	267	0.0641390	18727559.066954900
268	268	0.0641390	19928726.416633700
269	269	0.0641390	21206935.467090300
270	270	0.0641390	22567127.597775500
271	271	0.0641390	24014561.123392500
272	272	0.0641390	25554831.621814500
273	273	0.0641390	27193893.565814700
274	274	0.0641390	28938083.342235400
275	275	0.0641390	30794143.747582700
276	276	0.0641390	32769250.054745800
277	277	0.0641390	34871037.751609900
278	278	0.0641390	37107632.058796400
279	279	0.0641390	39487679.340642600
280	280	0.0641390	42020380.530850500
281	281	0.0641390	44715526.702024400
282	282	0.0641390	47583536.916603700
283	283	0.0641390	50635498.505517500
284	284	0.0641390	53883209.930273200
285	285	0.0641390	57339226.394177300
286	286	0.0641390	61016908.379015200
287	287	0.0641390	64930473.294826400
288	288	0.0641390	69095050.442446000
289	289	0.0641390	73526739.501289800
290	290	0.0641390	78242672.768488900
291	291	0.0641390	83261081.389981100
292	292	0.0641390	88601365.839600900
293	293	0.0641390	94284170.918628200
294	294	0.0641390	100331465.565736000
295	295	0.0641390	106766627.785869000
296	296	0.0641390	113614535.026380000
297	297	0.0641390	120901660.349799000
298	298	0.0641390	128656174.775034000
299	299	0.0641390	136908056.182634000
300	300	0.0641390	145689205.205132000
301	301	0.0641390	155033568.550479000
302	302	0.0641390	164977270.235319000
303	303	0.0641390	175558751.235449000
304	304	0.0641390	186818918.093313000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
305	305	0.0641390	198801301.057036000
306	306	0.0641390	211552222.362351000
307	307	0.0641390	225120975.307951000
308	308	0.0641390	239560014.816570000
309	309	0.0641390	254925160.218460000
310	310	0.0641390	271275811.041202000
311	311	0.0641390	288675176.640069000
312	312	0.0641390	307190520.556653000
313	313	0.0641390	326893420.550415000
314	314	0.0641390	347860045.308407000
315	315	0.0641390	370171448.902885000
316	316	0.0641390	393913884.135142000
317	317	0.0641390	419179135.976915000
318	318	0.0641390	446064876.398392000
319	319	0.0641390	474675041.954548000
320	320	0.0641390	505120235.589488000
321	321	0.0641390	537518154.212142000
322	322	0.0641390	571994043.696240000
323	323	0.0641390	608681183.063538000
324	324	0.0641390	647721399.722092000
325	325	0.0641390	689265617.751406000
326	326	0.0641390	733474441.354054000
327	327	0.0641390	780518775.729321000
328	328	0.0641390	830580487.769072000
329	329	0.0641390	883853109.130011000
330	330	0.0641390	940542584.400303000
331	331	0.0641390	1000868067.252880000
332	332	0.0641390	1065062767.663230000
333	333	0.0641390	1133374853.466920000
334	334	0.0641390	1206068409.742160000
335	335	0.0641390	1283424459.726140000
336	336	0.0641390	1365742051.212070000
337	337	0.0641390	1453339412.626560000
338	338	0.0641390	1546555183.256740000
339	339	0.0641390	1645749722.382900000
340	340	0.0641390	1751306502.377650000
341	341	0.0641390	1863633591.157100000
342	342	0.0641390	1983165229.714980000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
343	343	0.0641390	2110363510.838290000
344	344	0.0641390	2245720165.494120000
345	345	0.0641390	2389758463.793580000
346	346	0.0641390	2543035237.881690000
347	347	0.0641390	2706143034.573470000
348	348	0.0641390	2879712406.057980000
349	349	0.0641390	3064414347.525900000
350	350	0.0641390	3260962891.144190000
351	351	0.0641390	3470117866.405650000
352	352	0.0641390	3692687837.524760000
353	353	0.0641390	3929533229.235060000
354	354	0.0641390	4181569653.072250000
355	355	0.0641390	4449771447.001760000
356	356	0.0641390	4735175442.074600000
357	357	0.0641390	5038884970.672860000
358	358	0.0641390	5362074131.840120000
359	359	0.0641390	5705992330.186030000
360	360	0.0641390	6071969105.911750000
361	361	0.0641390	6461419274.628560000
362	362	0.0641390	6875848396.839360000
363	363	0.0641390	7316858598.227440000
364	364	0.0641390	7786154763.252770000
365	365	0.0641390	8285551125.999690000
366	366	0.0641390	8816978283.754930000
367	367	0.0641390	9382490660.429850000
368	368	0.0641390	9984274448.679150000
369	369	0.0641390	10624656061.419400000
370	370	0.0641390	11306111125.419900000
371	371	0.0641390	12031274051.733000000
372	372	0.0641390	12802948219.963500000
373	373	0.0641390	13624116815.746200000
374	374	0.0641390	14497954363.329200000
375	375	0.0641390	15427838997.845800000
376	376	0.0641390	16417365524.717800000
377	377	0.0641390	17470359316.676000000
378	378	0.0641390	18590891102.122400000
379	379	0.0641390	19783292702.003500000
380	380	0.0641390	21052173776.030700000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
OGE Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.11

g= 4.0875%
Non-Constant DCF = 10.4618% 10.5850%
Constant DCF = 9.2569%
D= 1.5950
g(e)= 6.41%
P= -32.12

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
381	381	0.0641390	22402439642.987800000
382	382	0.0641390	23839310244.014900000
383	383	0.0641390	25368340322.179300000
384	384	0.0641390	26995440896.343800000
385	385	0.0641390	28726902112.348600000
386	386	0.0641390	30569417559.845400000
387	387	0.0641390	32530110148.789100000
388	388	0.0641390	34616559645.623300000
389	389	0.0641390	36836831975.608900000
390	390	0.0641390	39199510404.576300000
391	391	0.0641390	41713728720.643600000
392	392	0.0641390	44389206544.179500000
393	393	0.0641390	47236286902.510800000
394	394	0.0641390	50265976214.636600000
395	395	0.0641390	53489986840.521600000
396	396	0.0641390	56920782359.461100000
397	397	0.0641390	60571625752.554500000
398	398	0.0641390	64456630675.556600000
399	399	0.0641390	68590816020.319400000
400	400	0.0641390	72990163975.751000000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
1	1	0.0377500	3.396036875
2	2	0.0377500	3.524237267
3	3	0.0377500	3.657277224
4	4	0.0377500	3.795339439
5	5	0.0377500	3.938613503
6	6	0.0390695	4.092492971
7	7	0.0403889	4.257784270
8	8	0.0417084	4.435369441
9	9	0.0430278	4.626213651
10	10	0.0443473	4.831373532
11	11	0.0456667	5.052006451
12	12	0.0469862	5.289380826
13	13	0.0483056	5.544887590
14	14	0.0496251	5.820052972
15	15	0.0509445	6.116552729
16	16	0.0522640	6.436228014
17	17	0.0535834	6.781103084
18	18	0.0549029	7.153405073
19	19	0.0562223	7.555586076
20	20	0.0575418	7.990347854
21	21	0.0588612	8.460669467
22	22	0.0601807	8.969838223
23	23	0.0615001	9.521484360
24	24	0.0628196	10.119619935
25	25	0.0641390	10.768682475
26	26	0.0641390	11.459375252
27	27	0.0641390	12.194368390
28	28	0.0641390	12.976503270
29	29	0.0641390	13.808803517
30	30	0.0641390	14.694486689
31	31	0.0641390	15.636976715
32	32	0.0641390	16.639917131
33	33	0.0641390	17.707185166
34	34	0.0641390	18.842906730
35	35	0.0641390	20.051472366
36	36	0.0641390	21.337554222
37	37	0.0641390	22.706124112
38	38	0.0641390	24.162472738

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
39	39	0.0641390	25.712230143
40	40	0.0641390	27.361387475
41	41	0.0641390	29.116320147
42	42	0.0641390	30.983812487
43	43	0.0641390	32.971083962
44	44	0.0641390	35.085817088
45	45	0.0641390	37.336187132
46	46	0.0641390	39.730893713
47	47	0.0641390	42.279194436
48	48	0.0641390	44.990940678
49	49	0.0641390	47.876615676
50	50	0.0641390	50.947375051
51	51	0.0641390	54.215089933
52	52	0.0641390	57.692392856
53	53	0.0641390	61.392726592
54	54	0.0641390	65.330396121
55	55	0.0641390	69.520623929
56	56	0.0641390	73.979608855
57	57	0.0641390	78.724588721
58	58	0.0641390	83.773906961
59	59	0.0641390	89.147083542
60	60	0.0641390	94.864890421
61	61	0.0641390	100.949431850
62	62	0.0641390	107.424229824
63	63	0.0641390	114.314315017
64	64	0.0641390	121.646323546
65	65	0.0641390	129.448599941
66	66	0.0641390	137.751306725
67	67	0.0641390	146.586541014
68	68	0.0641390	155.988458602
69	69	0.0641390	165.993406002
70	70	0.0641390	176.640060958
71	71	0.0641390	187.969581965
72	72	0.0641390	200.025767386
73	73	0.0641390	212.855224766
74	74	0.0641390	226.507551013
75	75	0.0641390	241.035524133
76	76	0.0641390	256.495307262

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
77	77	0.0641390	272.946665782
78	78	0.0641390	290.453198373
79	79	0.0641390	309.082582867
80	80	0.0641390	328.906837889
81	81	0.0641390	350.002601269
82	82	0.0641390	372.451426311
83	83	0.0641390	396.340097067
84	84	0.0641390	421.760963837
85	85	0.0641390	448.812300176
86	86	0.0641390	477.598682810
87	87	0.0641390	508.231395915
88	88	0.0641390	540.828861322
89	89	0.0641390	575.517096327
90	90	0.0641390	612.430200850
91	91	0.0641390	651.710875848
92	92	0.0641390	693.510974980
93	93	0.0641390	737.992091649
94	94	0.0641390	785.326183703
95	95	0.0641390	835.696238195
96	96	0.0641390	889.296978792
97	97	0.0641390	946.335618547
98	98	0.0641390	1007.032660952
99	99	0.0641390	1071.622752382
100	100	0.0641390	1140.355589199
101	101	0.0641390	1213.496883047
102	102	0.0641390	1291.329388054
103	103	0.0641390	1374.153993923
104	104	0.0641390	1462.290889129
105	105	0.0641390	1556.080798720
106	106	0.0641390	1655.886301519
107	107	0.0641390	1762.093231801
108	108	0.0641390	1875.112170871
109	109	0.0641390	1995.380034322
110	110	0.0641390	2123.361761084
111	111	0.0641390	2259.552110817
112	112	0.0641390	2404.477576582
113	113	0.0641390	2558.698420190
114	114	0.0641390	2722.810838099

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
115	115	0.0641390	2897.449266224
116	116	0.0641390	3083.288832581
117	117	0.0641390	3281.047967239
118	118	0.0641390	3491.491179666
119	119	0.0641390	3715.432014225
120	120	0.0641390	3953.736195218
121	121	0.0641390	4207.324973657
122	122	0.0641390	4477.178688697
123	123	0.0641390	4764.340557487
124	124	0.0641390	5069.920708106
125	125	0.0641390	5395.100471163
126	126	0.0641390	5741.136946661
127	127	0.0641390	6109.367863766
128	128	0.0641390	6501.216752289
129	129	0.0641390	6918.198445851
130	130	0.0641390	7361.924938025
131	131	0.0641390	7834.111614074
132	132	0.0641390	8336.583882399
133	133	0.0641390	8871.284231313
134	134	0.0641390	9440.279738430
135	135	0.0641390	10045.770061707
136	136	0.0641390	10690.095943012
137	137	0.0641390	11375.748257111
138	138	0.0641390	12105.377641044
139	139	0.0641390	12881.804741126
140	140	0.0641390	13708.031117166
141	141	0.0641390	14587.250846094
142	142	0.0641390	15522.862869810
143	143	0.0641390	16518.484135032
144	144	0.0641390	17577.963575906
145	145	0.0641390	18705.396993455
146	146	0.0641390	19905.142889383
147	147	0.0641390	21181.839315433
148	148	0.0641390	22540.421803459
149	149	0.0641390	23986.142445508
150	150	0.0641390	25524.590197684
151	151	0.0641390	27161.712486273
152	152	0.0641390	28903.838199680

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
153	153	0.0641390	30757.702155026
154	154	0.0641390	32730.471134031
155	155	0.0641390	34829.771588791
156	156	0.0641390	37063.719124594
157	157	0.0641390	39440.949873724
158	158	0.0641390	41970.653881559
159	159	0.0641390	44662.610634009
160	160	0.0641390	47527.226863662
161	161	0.0641390	50575.576780772
162	162	0.0641390	53819.444884620
163	163	0.0641390	57271.371520767
164	164	0.0641390	60944.701360290
165	165	0.0641390	64853.634988436
166	166	0.0641390	69013.283802122
167	167	0.0641390	73439.728428507
168	168	0.0641390	78150.080890471
169	169	0.0641390	83162.550759330
170	170	0.0641390	88496.515550522
171	171	0.0641390	94172.595634402
172	172	0.0641390	100212.733951741
173	173	0.0641390	106640.280842104
174	174	0.0641390	113480.084313029
175	175	0.0641390	120758.586098994
176	176	0.0641390	128503.923881505
177	177	0.0641390	136746.040065479
178	178	0.0641390	145516.797532444
179	179	0.0641390	154850.102818033
180	180	0.0641390	164782.037189962
181	181	0.0641390	175350.996133223
182	182	0.0641390	186597.837781719
183	183	0.0641390	198566.040870158
184	184	0.0641390	211301.872816836
185	185	0.0641390	224854.568587072
186	186	0.0641390	239276.521028780
187	187	0.0641390	254623.483415974
188	188	0.0641390	270954.784983214
189	189	0.0641390	288333.560284228
190	190	0.0641390	306826.993261363

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
191	191	0.0641390	326506.576969417
192	192	0.0641390	347448.389957906
193	193	0.0641390	369733.390380215
194	194	0.0641390	393447.728966625
195	195	0.0641390	418683.082071125
196	196	0.0641390	445537.006079520
197	197	0.0641390	474113.314548928
198	198	0.0641390	504522.479536641
199	199	0.0641390	536882.058669820
200	200	0.0641390	571317.149607028
201	201	0.0641390	607960.873648482
202	202	0.0641390	646954.890364591
203	203	0.0641390	688449.945232269
204	204	0.0641390	732606.452396105
205	205	0.0641390	779595.114807266
206	206	0.0641390	829597.584137502
207	207	0.0641390	882807.163019391
208	208	0.0641390	939429.552327593
209	209	0.0641390	999683.646389984
210	210	0.0641390	1063802.379202860
211	211	0.0641390	1132033.624921580
212	212	0.0641390	1204641.156107720
213	213	0.0641390	1281905.663437410
214	214	0.0641390	1364125.840812600
215	215	0.0641390	1451619.540070420
216	216	0.0641390	1544724.999754440
217	217	0.0641390	1643802.152698070
218	218	0.0641390	1749234.017475190
219	219	0.0641390	1861428.179096930
220	220	0.0641390	1980818.364679020
221	221	0.0641390	2107866.120170810
222	222	0.0641390	2243062.594628120
223	223	0.0641390	2386930.438927560
224	224	0.0641390	2540025.826262540
225	225	0.0641390	2702940.602231990
226	226	0.0641390	2876304.572833530
227	227	0.0641390	3060787.939206450
228	228	0.0641390	3257103.888536590

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
229	229	0.0641390	3466011.351139410
230	230	0.0641390	3688317.934379660
231	231	0.0641390	3924883.044769780
232	232	0.0641390	4176621.210316620
233	233	0.0641390	4444505.615960310
234	234	0.0641390	4729571.865772630
235	235	0.0641390	5032921.986459200
236	236	0.0641390	5355728.687642300
237	237	0.0641390	5699239.895394160
238	238	0.0641390	6064783.576546600
239	239	0.0641390	6453772.872427140
240	240	0.0641390	6867711.561868030
241	241	0.0641390	7308199.874607280
242	242	0.0641390	7776940.677555520
243	243	0.0641390	8275746.057844060
244	244	0.0641390	8806544.328103190
245	245	0.0641390	9371387.481052150
246	246	0.0641390	9972459.122219260
247	247	0.0641390	10612082.911459000
248	248	0.0641390	11292731.545899600
249	249	0.0641390	12017036.319048400
250	250	0.0641390	12787797.293008800
251	251	0.0641390	13607994.123132600
252	252	0.0641390	14480797.576956400
253	253	0.0641390	15409581.791950000
254	254	0.0641390	16397937.319465400
255	255	0.0641390	17449685.005311800
256	256	0.0641390	18568890.760617300
257	257	0.0641390	19759881.280079200
258	258	0.0641390	21027260.768367200
259	259	0.0641390	22375928.739342200
260	260	0.0641390	23811098.956899400
261	261	0.0641390	25338319.590658700
262	262	0.0641390	26963494.664421000
263	263	0.0641390	28692906.880308200
264	264	0.0641390	30533241.906820800
265	265	0.0641390	32491614.224707700
266	266	0.0641390	34575594.630565500

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
267	267	0.0641390	36793239.504490800
268	268	0.0641390	39153121.954931900
269	269	0.0641390	41664364.961140900
270	270	0.0641390	44336676.641349700
271	271	0.0641390	47180387.783013000
272	272	0.0641390	50206491.780203800
273	273	0.0641390	53426687.132555400
274	274	0.0641390	56853422.670042900
275	275	0.0641390	60499945.678438800
276	276	0.0641390	64380353.111488100
277	277	0.0641390	68509646.087782300
278	278	0.0641390	72903787.883009600
279	279	0.0641390	77579765.641771500
280	280	0.0641390	82555656.047535000
281	281	0.0641390	87850695.204591400
282	282	0.0641390	93485353.002175700
283	283	0.0641390	99481412.248228300
284	284	0.0641390	105862052.878718000
285	285	0.0641390	112651941.568070000
286	286	0.0641390	119877327.087118000
287	287	0.0641390	127566141.777223000
288	288	0.0641390	135748109.532843000
289	289	0.0641390	144454860.709999000
290	290	0.0641390	153720054.404858000
291	291	0.0641390	163579508.575144000
292	292	0.0641390	174071338.507411000
293	293	0.0641390	185236104.165469000
294	294	0.0641390	197116966.989598000
295	295	0.0641390	209759856.752707000
296	296	0.0641390	223213649.118485000
297	297	0.0641390	237530354.587959000
298	298	0.0641390	252765319.564902000
299	299	0.0641390	268977440.317372000
300	300	0.0641390	286229390.662546000
301	301	0.0641390	304587864.255026000
302	302	0.0641390	324123832.415292000
303	303	0.0641390	344912818.495010000
304	304	0.0641390	367035189.839866000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
305	305	0.0641390	390576468.478614000
306	306	0.0641390	415627661.739416000
307	307	0.0641390	442285614.071583000
308	308	0.0641390	470653381.432832000
309	309	0.0641390	500840629.689365000
310	310	0.0641390	532964058.568944000
311	311	0.0641390	567147852.805905000
312	312	0.0641390	603524162.222168000
313	313	0.0641390	642233612.600177000
314	314	0.0641390	683425849.322729000
315	315	0.0641390	727260115.881337000
316	316	0.0641390	773905869.489542000
317	317	0.0641390	823543436.181077000
318	318	0.0641390	876364707.925374000
319	319	0.0641390	932573884.455389000
320	320	0.0641390	992388262.675534000
321	321	0.0641390	1056039076.701460000
322	322	0.0641390	1123772391.779190000
323	323	0.0641390	1195850055.539300000
324	324	0.0641390	1272550710.263700000
325	325	0.0641390	1354170870.078150000
326	326	0.0641390	1441026067.234840000
327	327	0.0641390	1533452071.916510000
328	328	0.0641390	1631806190.277480000
329	329	0.0641390	1736468645.739910000
330	330	0.0641390	1847844048.884900000
331	331	0.0641390	1966362961.621120000
332	332	0.0641390	2092483561.677570000
333	333	0.0641390	2226693413.855350000
334	334	0.0641390	2369511354.885760000
335	335	0.0641390	2521489499.181360000
336	336	0.0641390	2683215373.233940000
337	337	0.0641390	2855314186.910720000
338	338	0.0641390	3038451250.429250000
339	339	0.0641390	3233334546.354680000
340	340	0.0641390	3440717466.562510000
341	341	0.0641390	3661401724.747390000
342	342	0.0641390	3896240455.737400000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
343	343	0.0641390	4146141513.595360000
344	344	0.0641390	4412070981.257070000
345	345	0.0641390	4695056905.274400000
346	346	0.0641390	4996193270.101080000
347	347	0.0641390	5316644227.285330000
348	348	0.0641390	5657648595.918830000
349	349	0.0641390	6020524651.739960000
350	350	0.0641390	6406675223.405580000
351	351	0.0641390	6817593115.632640000
352	352	0.0641390	7254866880.174800000
353	353	0.0641390	7720186956.943830000
354	354	0.0641390	8215352209.016640000
355	355	0.0641390	8742276876.791140000
356	356	0.0641390	9302997978.174960000
357	357	0.0641390	9899683183.415040000
358	358	0.0641390	10534639195.011000000
359	359	0.0641390	11210320665.108300000
360	360	0.0641390	11929339684.843700000
361	361	0.0641390	12694475882.328500000
362	362	0.0641390	13508687168.306700000
363	363	0.0641390	14375121171.028700000
364	364	0.0641390	15297127404.547100000
365	365	0.0641390	16278270217.474600000
366	366	0.0641390	17322342572.263300000
367	367	0.0641390	18433380708.272600000
368	368	0.0641390	19615679745.312900000
369	369	0.0641390	20873810287.984700000
370	370	0.0641390	22212636095.004000000
371	371	0.0641390	23637332881.820900000
372	372	0.0641390	25153408329.220400000
373	373	0.0641390	26766723375.253800000
374	374	0.0641390	28483514872.815800000
375	375	0.0641390	30310419700.455000000
376	376	0.0641390	32254500419.628400000
377	377	0.0641390	34323272577.587900000
378	378	0.0641390	36524733761.446700000
379	379	0.0641390	38867394515.745100000
380	380	0.0641390	41360311243.039100000

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
PNW Non-Constant DCF Calculation
As of March 31, 2021

Staff Schedule D-1.12

g= 3.7750%
Non-Constant DCF = 9.6651% 9.7206%
Constant DCF = 8.0575%
D= 3.2725
g(e)= 6.41%
P= -79.30

LINE NO.	YEAR	GROWTH RATE	DIVIDEND
381	381	0.0641390	44013121214.700300000
382	382	0.0641390	46836079827.274600000
383	383	0.0641390	49840100248.427100000
384	384	0.0641390	53036795605.739500000
385	385	0.0641390	56438523881.455600000
386	386	0.0641390	60058435686.731500000
387	387	0.0641390	63910525100.080500000
388	388	0.0641390	68009683766.545600000
389	389	0.0641390	72371758466.739700000
390	390	0.0641390	77013612378.309000000
391	391	0.0641390	81953190266.645400000
392	392	0.0641390	87209587856.868800000
393	393	0.0641390	92803125655.260000000
394	394	0.0641390	98755427505.528000000
395	395	0.0641390	105089504183.600000000
396	396	0.0641390	111829842354.099000000
397	397	0.0641390	119002499232.405000000
398	398	0.0641390	126635203318.244000000
399	399	0.0641390	134757461590.237000000
400	400	0.0641390	143400673575.797000000

Columbia Gas of Ohio, Inc.
Summary Cost of Capital

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	49.40%	4.49%	2.22%
Common Equity	<u>50.60%</u>	11.30%	<u>5.72%</u>
Total	<u>100.00%</u>		<u>7.94%</u>

Indicated levels of fixed charge coverage assuming that the Company could actually achieve its overall cost of capital:

Pre-tax coverage of interest expense based upon a
21.0000% income tax rate
(9.46% ÷ 2.22%) 4.26 x

Post-tax coverage of interest expense
(7.94% ÷ 2.22%) 3.58 x

Columbia Gas Of Ohio, Inc.
Cost of Equity
as of April 30, 2022

													Attachment PRM-1									
Discounted Cash Flow (DCF)		D_1/P_0	⁽¹⁾	+	g	⁽²⁾	+	$lev.$	⁽³⁾	=	k	$\times$	$flot.$	=	K	k	K					
Gas Group		3.26%		+	6.75%		+	1.22%		=	11.23%	$\times$	1.015	=	11.40%	11.37%	11.54%					
Risk Premium (RP)					I	⁽⁴⁾	+	RP	⁽⁵⁾	=	k	+	$flot.$	=	K							
Gas Group					4.25%		+	6.75%		=	11.00%	+	0.17%	=	11.17%	10.50%	10.67%					
Capital Asset Pricing Model (CAPM)		Rf	⁽⁶⁾	+	(	β	⁽⁷⁾	$\times$	($Rm - Rf$)	⁽⁸⁾	)	+	$size$	⁽⁹⁾	=	k	$\times$	$flot.$	=	K		
Gas Group		3.00%		+	(	1.02		$\times$	(10.36%		)	+	1.02%		=	14.59%	+	0.17%	=	14.76%	12.51%	12.68%
Comparable Earnings (CE)												Historical	Forecast	Average								
Comparable Earnings Group												12.5%	13.3%	12.90%	12.15%	12.15%						

References: ⁽¹⁾ Attachment PRM-05-S

⁽²⁾ Attachment PRM-06-S

⁽³⁾ Attachment PRM-07-S

⁽⁴⁾ A-rated public utility bond yield comprised of a 3.00% risk-free rate of return (Attachment PRM-10-S page 2) and a yield spread of 1.25% (Attachment PRM-08-S page 3)

⁽⁵⁾ Attachment PRM-09-S page 1

⁽⁶⁾ Attachment PRM-10-S page 2

⁽⁷⁾ Attachment PRM-07-S

⁽⁸⁾ Attachment PRM-10-S page 2

⁽⁹⁾ Attachment PRM-10-S page 3

⁽¹⁰⁾ Attachment PRM-11-S page 2

**Monthly Dividend Yields for
Natural Gas Group
for the Twelve Months Ending April 2022**

<u>Company</u>	<u>May-21</u>	<u>Jun-21</u>	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	12-Month Average	6-Month Average	3-Month Average
Atmos Energy Corp (ATO)	2.52%	2.61%	2.55%	2.57%	2.84%	2.97%	3.01%	2.60%	2.55%	2.48%	2.28%	2.41%			
Chesapeake Utilities Corp (CPK)	1.68%	1.60%	1.54%	1.47%	1.60%	1.47%	1.51%	1.32%	1.41%	1.45%	1.39%	1.54%			
New Jersey Resources Corporation (NJR)	3.13%	3.37%	3.78%	3.92%	4.17%	3.85%	3.97%	3.54%	3.62%	3.35%	3.17%	3.37%			
Northwest Natural Holding Company (NWN)	3.64%	3.68%	3.67%	3.74%	4.21%	4.28%	4.49%	3.98%	4.08%	3.72%	3.76%	4.04%			
ONE Gas Inc (OGS)	3.13%	3.14%	3.17%	3.24%	3.68%	3.47%	3.58%	3.00%	3.21%	2.99%	2.82%	2.95%			
Southwest Gas Holdings Inc (SWX)	3.61%	3.61%	3.43%	3.39%	3.58%	3.46%	3.62%	3.41%	3.52%	3.36%	3.05%	2.83%			
Spire Inc. (SR)	<u>3.66%</u>	<u>3.60%</u>	<u>3.68%</u>	<u>3.93%</u>	<u>4.26%</u>	<u>4.39%</u>	<u>4.63%</u>	<u>4.21%</u>	<u>4.18%</u>	<u>4.12%</u>	<u>3.83%</u>	<u>3.79%</u>			
Average	<u>3.05%</u>	<u>3.09%</u>	<u>3.12%</u>	<u>3.18%</u>	<u>3.48%</u>	<u>3.41%</u>	<u>3.54%</u>	<u>3.15%</u>	<u>3.22%</u>	<u>3.07%</u>	<u>2.90%</u>	<u>2.99%</u>	<u>3.18%</u>	<u>3.15%</u>	<u>2.99%</u>

Note: Monthly dividend yields are calculated by dividing the annualized quarterly dividend by the month-end closing stock price adjusted by the fraction of the ex-dividend.

Source of Information: <https://finance.yahoo.com/quote>
<https://www.nasdaq.com/market-activity/stocks>

Forward-looking Dividend Yield	1/2 Growth	D_0/P_0	(.5g)	D_1/P_0	$K = \frac{D_0(1+g)^0 + D_0(1+g)^0 + D_0(1+g)^1 + D_0(1+g)^1}{P_0} + g$
		3.15%	1.033750	3.25%	
	Discrete	D_0/P_0	Adj.	D_1/P_0	$K = \frac{D_0(1+g)^{25} + D_0(1+g)^{50} + D_0(1+g)^{75} + D_0(1+g)^{100}}{P_0} + g$
		3.15%	1.041843	3.28%	
	Quarterly	D_0/P_0	Adj.	D_1/P_0	$K = \left[\left(1 + \frac{D_0(1+g)^{25}}{P_0} \right)^4 - 1 \right] + g$
		0.7863%	1.016464	3.24%	
	Average			3.26%	
	Growth rate			6.75%	
	K			10.01%	

Analysts' Five-Year Projected Growth Rates

Earnings Per Share, Dividends Per Share,
Book Value Per Share, and Cash Flow Per Share

Gas Group	I/B/E/S First Call	Zacks	Value Line				
			Earnings Per Share	Dividends Per Share	Book Value Per Share	Cash Flow Per Share	Percent Retained to Common Equity
Atmos Energy Corp (ATO)	7.76%	7.30%	7.50%	7.00%	7.50%	7.00%	4.50%
Chesapeake Utilities Corp (CPK)	7.00%	NA	8.00%	8.00%	7.00%	9.00%	7.00%
New Jersey Resources Corporation	6.00%	6.00%	4.50%	5.00%	4.00%	4.50%	4.50%
Northwest Natural Holding Compan	3.70%	4.50%	6.00%	0.50%	5.50%	4.50%	3.00%
ONE Gas Inc (OGS)	5.00%	5.00%	6.00%	6.50%	8.50%	6.50%	3.00%
Southwest Gas Holdings Inc (SWX)	4.00%	5.50%	8.00%	5.00%	6.00%	8.00%	5.00%
Spire Inc. (SR)	4.30%	5.50%	9.00%	5.00%	7.00%	7.50%	3.00%
Average	<u>5.39%</u>	<u>5.63%</u>	<u>7.00%</u>	<u>5.29%</u>	<u>6.50%</u>	<u>6.71%</u>	<u>4.29%</u>

Source of Information :

Yahoo Finance, April 28, 2022

Zacks, April 28, 2022

Value Line Investment Survey, February 25, 2022

Gas Group
Financial Risk Adjustment

		ATMOS Energy (NYSE:ATO)	Chesapeake Utilities (NYSE:CPK)	New Jersey Resources (NYSE:NJR)	Northwest Natural Gas (NYSE:NWN)	ONE Gas Inc (NYSE:OGS)	Southwest Gas (SWX)	Spire Inc. (NYSE:SR)	Average
Fiscal Year		09/30/21	12/31/21	09/30/21	12/31/21	12/31/21	12/31/21	09/30/21	
Capitalization at Fair Values									
	Debt(D)	8,086,136	597,200	2,288,544	1,174,500	2,000,000	4,663,332	3,375,900	3,169,373
	Preferred(P)	0	0	0	0	0	0	242,000	34,571
	Equity(E)	<u>11,679,422</u>	<u>2,574,335</u>	<u>3,305,117</u>	<u>1,518,473</u>	<u>4,161,401</u>	<u>4,232,567</u>	<u>3,162,081</u>	<u>4,376,199</u>
	Total	<u>19,765,558</u>	<u>3,171,535</u>	<u>5,593,661</u>	<u>2,692,973</u>	<u>6,161,401</u>	<u>8,895,899</u>	<u>6,779,981</u>	<u>7,580,144</u>
Capital Structure Ratios									
	Debt(D)	40.91%	18.83%	40.91%	43.61%	32.46%	52.42%	49.79%	39.85%
	Preferred(P)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.57%	0.51%
	Equity(E)	<u>59.09%</u>	<u>81.17%</u>	<u>59.09%</u>	<u>56.39%</u>	<u>67.54%</u>	<u>47.58%</u>	<u>46.64%</u>	<u>59.64%</u>
	Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>
Common Stock									
	Issued	132,419,754	17,655,410	95,709,662	31,129,000	53,633,210	60,422,081	51,684,883	
	Treasury	0.000	0.000	762.313	0.000	0.000	0.000	0.000	
	Outstanding	132,419,754	17,655,410	94,947,349	31,129,000	53,633,210	60,422,081	51,684,883	
	Market Price	\$ 88.20	\$ 145.81	\$ 34.81	\$ 48.78	\$ 77.59	\$ 70.05	\$ 61.18	
Capitalization at Carrying Amounts									
	Debt(D)	7,360,000	568,800	2,102,845	1,044,932	1,600,000	4,413,008	2,994,900	2,869,212
	Preferred(P)	0	0	0	0	0	0	242,000	34,571
	Equity(E)	<u>7,906,889</u>	<u>774,130</u>	<u>1,630,862</u>	<u>935,146</u>	<u>2,349,532</u>	<u>2,953,820</u>	<u>2,416,200</u>	<u>2,709,511</u>
	Total	<u>15,266,889</u>	<u>1,342,930</u>	<u>3,733,707</u>	<u>1,980,078</u>	<u>3,949,532</u>	<u>7,366,828</u>	<u>5,653,100</u>	<u>5,613,295</u>
Capital Structure Ratios									
	Debt(D)	59.71	43.85	17.18	30.04	43.81	48.89	46.75	50.44%
	Preferred(P)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.28%	0.61%
	Equity(E)	<u>51.79%</u>	<u>57.64%</u>	<u>43.68%</u>	<u>47.23%</u>	<u>59.49%</u>	<u>40.10%</u>	<u>42.74%</u>	<u>48.95%</u>
	Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>
Betas	Value Line	0.80	0.80	1.00	0.80	0.80	0.95	0.85	0.86
Hamada	BI	=	Bu	[1+	(1 - t)	D/E	+	P/E	]
	0.86	=	Bu	[1+	(1-0.21)	0.6682	+	0.0086	]
	0.86	=	Bu	[1+	0.79	0.6682	+	0.0086	]
	0.86	=	Bu	1.5365					
	0.56	=	Bu						
Hamada	BI	=	0.56	[1+	(1 - t)	D/E	+	P/E	]
	BI	=	0.56	[1+	0.79	1.0303	+	0.0125	]
	BI	=	0.56	1.8264					
	BI	=	1.02						
M&M	ku	=	ke	-	((	ku	-	i	)
	7.78%	=	10.01%	-	((	7.78%	-	3.58%	)
	7.78%	=	10.01%	-	((	4.20%	-		)
	7.78%	=	10.01%	-	((	3.32%	-		)
	7.78%	=	10.01%	-		2.22%	-		)
M&M	ke	=	ku	+	((	ku	-	i	)
	11.21%	=	7.78%	+	((	7.78%	-	3.58%	)
	11.21%	=	7.78%	+	((	4.20%	-		)
	11.21%	=	7.78%	+	((	3.32%	-		)
	11.23%	=	7.78%	+		3.42%	-		)

**Interest Rates for Investment Grade Public Utility Bonds
Yearly for 2017-2021
and the Twelve Months Ended April 2022**

<u>Years</u>	<u>Aa Rated</u>	<u>A Rated</u>	<u>Baa Rated</u>	<u>Average</u>
2017	3.82%	4.00%	4.38%	4.07%
2018	4.09%	4.25%	4.67%	4.34%
2019	3.61%	3.77%	4.19%	3.86%
2020	2.79%	3.02%	3.39%	3.07%
2021	2.97%	3.11%	3.36%	3.15%
Five-Year Average	<u>3.46%</u>	<u>3.63%</u>	<u>4.00%</u>	<u>3.70%</u>
<u>Months</u>				
May-21	3.17%	3.33%	3.58%	3.36%
Jun-21	3.01%	3.16%	3.41%	3.19%
Jul-21	2.80%	2.95%	3.20%	2.99%
Aug-21	2.82%	2.95%	3.19%	2.99%
Sep-21	2.84%	2.96%	3.19%	3.00%
Oct-21	2.99%	3.09%	3.32%	3.13%
Nov-21	2.91%	3.02%	3.25%	3.06%
Dec-21	3.01%	3.13%	3.36%	3.17%
Jan-22	3.19%	3.33%	3.57%	3.36%
Feb-22	3.56%	3.68%	3.95%	3.73%
Mar-22	3.81%	3.98%	4.28%	4.02%
Apr-22	4.10%	4.32%	4.61%	4.34%
Twelve-Month Average	<u>3.18%</u>	<u>3.33%</u>	<u>3.58%</u>	<u>3.36%</u>
Six-Month Average	<u>3.43%</u>	<u>3.58%</u>	<u>3.84%</u>	<u>3.61%</u>
Three-Month Average	<u>3.82%</u>	<u>3.99%</u>	<u>4.28%</u>	<u>4.03%</u>

A rated Public Utility Bonds over 30-Year Treasuries

Year	A-rated Public Utility	30-Year Treasuries		Year	A-rated Public Utility	30-Year Treasuries		Year	A-rated Public Utility	30-Year Treasuries		Year	A-rated Public Utility	30-Year Treasuries	
		Yield	Spread			Yield	Spread			Yield	Spread			Yield	Spread
Jan-99	6.97%	5.16%	1.81%	Jan-05	5.78%			Jan-11	5.57%	4.52%	1.05%	Jan-17	4.14%	3.02%	1.12%
Feb-99	7.09%	5.37%	1.72%	Feb-05	5.61%			Feb-11	5.68%	4.65%	1.03%	Feb-17	4.18%	3.03%	1.15%
Mar-99	7.26%	5.58%	1.68%	Mar-05	5.63%			Mar-11	5.56%	4.51%	1.05%	Mar-17	4.23%	3.08%	1.15%
Apr-99	7.22%	5.55%	1.67%	Apr-05	5.64%			Apr-11	5.55%	4.50%	1.05%	Apr-17	4.12%	2.94%	1.18%
May-99	7.47%	5.81%	1.66%	May-05	5.53%			May-11	5.32%	4.29%	1.03%	May-17	4.12%	2.96%	1.16%
Jun-99	7.74%	6.04%	1.70%	Jun-05	5.40%			Jun-11	5.26%	4.23%	1.03%	Jun-17	3.94%	2.80%	1.14%
Jul-99	7.71%	5.98%	1.73%	Jul-05	5.51%			Jul-11	5.27%	4.27%	1.00%	Jul-17	3.99%	2.88%	1.11%
Aug-99	7.91%	6.07%	1.84%	Aug-05	5.50%			Aug-11	4.69%	3.65%	1.04%	Aug-17	3.86%	2.80%	1.06%
Sep-99	7.93%	6.07%	1.86%	Sep-05	5.52%			Sep-11	4.48%	3.18%	1.30%	Sep-17	3.87%	2.78%	1.09%
Oct-99	8.06%	6.26%	1.80%	Oct-05	5.79%			Oct-11	4.52%	3.13%	1.39%	Oct-17	3.91%	2.88%	1.03%
Nov-99	7.94%	6.15%	1.79%	Nov-05	5.88%			Nov-11	4.25%	3.02%	1.23%	Nov-17	3.83%	2.80%	1.03%
Dec-99	8.14%	6.35%	1.79%	Dec-05	5.80%			Dec-11	4.33%	2.98%	1.35%	Dec-17	3.79%	2.77%	1.02%
Jan-00	8.35%	6.63%	1.72%	Jan-06	5.75%			Jan-12	4.34%	3.03%	1.31%	Jan-18	3.86%	2.88%	0.98%
Feb-00	8.25%	6.23%	2.02%	Feb-06	5.82%	4.54%	1.28%	Feb-12	4.36%	3.11%	1.25%	Feb-18	4.09%	3.13%	0.96%
Mar-00	8.28%	6.05%	2.23%	Mar-06	5.98%	4.73%	1.25%	Mar-12	4.48%	3.28%	1.20%	Mar-18	4.13%	3.09%	1.04%
Apr-00	8.29%	5.85%	2.44%	Apr-06	6.29%	5.06%	1.23%	Apr-12	4.40%	3.18%	1.22%	Apr-18	4.17%	3.07%	1.10%
May-00	8.70%	6.15%	2.55%	May-06	6.42%	5.20%	1.22%	May-12	4.20%	2.93%	1.27%	May-18	4.28%	3.13%	1.15%
Jun-00	8.36%	5.93%	2.43%	Jun-06	6.40%	5.15%	1.25%	Jun-12	4.08%	2.70%	1.38%	Jun-18	4.27%	3.05%	1.22%
Jul-00	8.25%	5.85%	2.40%	Jul-06	6.37%	5.13%	1.24%	Jul-12	3.93%	2.59%	1.34%	Jul-18	4.27%	3.01%	1.26%
Aug-00	8.13%	5.72%	2.41%	Aug-06	6.20%	5.00%	1.20%	Aug-12	4.00%	2.77%	1.23%	Aug-18	4.26%	3.04%	1.22%
Sep-00	8.23%	5.83%	2.40%	Sep-06	6.00%	4.85%	1.15%	Sep-12	4.02%	2.88%	1.14%	Sep-18	4.32%	3.15%	1.17%
Oct-00	8.14%	5.80%	2.34%	Oct-06	5.98%	4.85%	1.13%	Oct-12	3.91%	2.90%	1.01%	Oct-18	4.45%	3.34%	1.11%
Nov-00	8.11%	5.78%	2.33%	Nov-06	5.80%	4.69%	1.11%	Nov-12	3.84%	2.80%	1.04%	Nov-18	4.52%	3.36%	1.16%
Dec-00	7.84%	5.49%	2.35%	Dec-06	5.81%	4.68%	1.13%	Dec-12	4.00%	2.88%	1.12%	Dec-18	4.37%	3.10%	1.27%
Jan-01	7.80%	5.54%	2.26%	Jan-07	5.96%	4.85%	1.11%	Jan-13	4.15%	3.08%	1.07%	Jan-19	4.35%	3.04%	1.31%
Feb-01	7.74%	5.45%	2.29%	Feb-07	5.90%	4.82%	1.08%	Feb-13	4.18%	3.17%	1.01%	Feb-19	4.25%	3.02%	1.23%
Mar-01	7.68%	5.34%	2.34%	Mar-07	5.85%	4.72%	1.13%	Mar-13	4.20%	3.16%	1.04%	Mar-19	4.16%	2.98%	1.18%
Apr-01	7.94%	5.65%	2.29%	Apr-07	5.97%	4.87%	1.10%	Apr-13	4.00%	2.93%	1.07%	Apr-19	4.08%	2.94%	1.14%
May-01	7.99%	5.78%	2.21%	May-07	5.99%	4.90%	1.09%	May-13	4.17%	3.11%	1.06%	May-19	3.98%	2.82%	1.16%
Jun-01	7.85%	5.67%	2.18%	Jun-07	6.30%	5.20%	1.10%	Jun-13	4.53%	3.40%	1.13%	Jun-19	3.82%	2.57%	1.25%
Jul-01	7.78%	5.61%	2.17%	Jul-07	6.25%	5.11%	1.14%	Jul-13	4.68%	3.61%	1.07%	Jul-19	3.69%	2.57%	1.12%
Aug-01	7.59%	5.48%	2.11%	Aug-07	6.24%	4.93%	1.31%	Aug-13	4.73%	3.76%	0.97%	Aug-19	3.29%	2.12%	1.17%
Sep-01	7.75%	5.48%	2.27%	Sep-07	6.18%	4.79%	1.39%	Sep-13	4.80%	3.79%	1.01%	Sep-19	3.37%	2.16%	1.21%
Oct-01	7.63%	5.32%	2.31%	Oct-07	6.11%	4.77%	1.34%	Oct-13	4.70%	3.68%	1.02%	Oct-19	3.39%	2.19%	1.20%
Nov-01	7.57%	5.12%	2.45%	Nov-07	5.97%	4.52%	1.45%	Nov-13	4.77%	3.80%	0.97%	Nov-19	3.43%	2.28%	1.15%
Dec-01	7.83%	5.48%	2.35%	Dec-07	6.16%	4.53%	1.63%	Dec-13	4.81%	3.89%	0.92%	Dec-19	3.40%	2.30%	1.10%
Jan-02	7.66%	5.45%	2.21%	Jan-08	6.02%	4.33%	1.69%	Jan-14	4.63%	3.77%	0.86%	Jan-20	3.29%	2.22%	1.07%
Feb-02	7.54%	5.40%	2.14%	Feb-08	6.21%	4.52%	1.69%	Feb-14	4.53%	3.66%	0.87%	Feb-20	3.11%	1.97%	1.14%
Mar-02	7.76%			Mar-08	6.21%	4.39%	1.82%	Mar-14	4.51%	3.62%	0.89%	Mar-20	3.50%	1.46%	2.04%
Apr-02	7.57%			Apr-08	6.29%	4.44%	1.85%	Apr-14	4.41%	3.52%	0.89%	Apr-20	3.19%	1.27%	1.92%
May-02	7.52%			May-08	6.28%	4.60%	1.68%	May-14	4.26%	3.39%	0.87%	May-20	3.14%	1.38%	1.76%
Jun-02	7.42%			Jun-08	6.38%	4.69%	1.69%	Jun-14	4.29%	3.42%	0.87%	Jun-20	3.07%	1.49%	1.58%
Jul-02	7.31%			Jul-08	6.40%	4.57%	1.83%	Jul-14	4.23%	3.33%	0.90%	Jul-20	2.74%	1.31%	1.43%
Aug-02	7.17%			Aug-08	6.37%	4.50%	1.87%	Aug-14	4.13%	3.20%	0.93%	Aug-20	2.73%	1.36%	1.37%
Sep-02	7.08%			Sep-08	6.49%	4.27%	2.22%	Sep-14	4.24%	3.26%	0.98%	Sep-20	2.84%	1.42%	1.42%
Oct-02	7.23%			Oct-08	7.56%	4.17%	3.39%	Oct-14	4.06%	3.04%	1.02%	Oct-20	2.95%	1.57%	1.38%
Nov-02	7.14%			Nov-08	7.60%	4.00%	3.60%	Nov-14	4.09%	3.04%	1.05%	Nov-20	2.85%	1.62%	1.23%
Dec-02	7.07%			Dec-08	6.52%	2.87%	3.65%	Dec-14	3.95%	2.83%	1.12%	Dec-20	2.77%	1.67%	1.10%
Jan-03	7.07%			Jan-09	6.39%	3.13%	3.26%	Jan-15	3.58%	2.46%	1.12%	Jan-21	2.91%	1.82%	1.09%
Feb-03	6.93%			Feb-09	6.30%	3.59%	2.71%	Feb-15	3.67%	2.57%	1.10%	Feb-21	3.09%	2.04%	1.05%
Mar-03	6.79%			Mar-09	6.42%	3.64%	2.78%	Mar-15	3.74%	2.63%	1.11%	Mar-21	3.44%	2.34%	1.10%
Apr-03	6.64%			Apr-09	6.48%	3.76%	2.72%	Apr-15	3.75%	2.59%	1.16%	Apr-21	3.30%	2.30%	1.00%
May-03	6.36%			May-09	6.49%	4.23%	2.26%	May-15	4.17%	2.96%	1.21%	May-21	3.33%	2.32%	1.01%
Jun-03	6.21%			Jun-09	6.20%	4.52%	1.68%	Jun-15	4.39%	3.11%	1.28%	Jun-21	3.16%	2.16%	1.00%
Jul-03	6.57%			Jul-09	5.97%	4.41%	1.56%	Jul-15	4.40%	3.07%	1.33%	Jul-21	2.95%	1.94%	1.01%
Aug-03	6.78%			Aug-09	5.71%	4.37%	1.34%	Aug-15	4.25%	2.86%	1.39%	Aug-21	2.95%	1.92%	1.03%
Sep-03	6.56%			Sep-09	5.53%	4.19%	1.34%	Sep-15	4.39%	2.95%	1.44%	Sep-21	2.96%	1.94%	1.02%
Oct-03	6.43%			Oct-09	5.55%	4.19%	1.36%	Oct-15	4.29%	2.89%	1.40%	Oct-21	3.09%	2.06%	1.03%
Nov-03	6.37%			Nov-09	5.64%	4.31%	1.33%	Nov-15	4.40%	3.03%	1.37%	Nov-21	3.02%	1.94%	1.08%
Dec-03	6.27%			Dec-09	5.79%	4.49%	1.30%	Dec-15	4.35%	2.97%	1.38%	Dec-21	3.13%	1.85%	1.28%
Jan-04	6.15%			Jan-10	5.77%	4.60%	1.17%	Jan-16	4.27%	2.86%	1.41%	Jan-22	3.33%	2.10%	1.23%
Feb-04	6.15%			Feb-10	5.87%	4.62%	1.25%	Feb-16	4.11%	2.62%	1.49%	Feb-22	3.68%	2.25%	1.43%
Mar-04	5.97%			Mar-10	5.84%	4.64%	1.20%	Mar-16	4.16%	2.68%	1.48%	Mar-22	3.98%	2.41%	1.57%
Apr-04	6.35%			Apr-10	5.81%	4.69%	1.12%	Apr-16	4.00%	2.62%	1.38%	Apr-22	4.32%	2.81%	1.51%
May-04	6.62%			May-10	5.50%	4.29%	1.21%	May-16	3.93%	2.63%	1.30%				
Jun-04	6.46%			Jun-10	5.46%	4.13%	1.33%	Jun-16	3.78%	2.45%	1.33%				
Jul-04	6.27%			Jul-10	5.26%	3.99%	1.27%	Jul-16	3.57%	2.23%	1.34%	Average:	12-months		1.18%
Aug-04	6.14%			Aug-10	5.01%	3.80%	1.21%	Aug-16	3.59%	2.26%	1.33%		6-months		1.35%
Sep-04	5.98%			Sep-10	5.01%	3.77%	1.24%	Sep-16	3.66%	2.35%	1.31%		3-months		1.50%
Oct-04	5.94%			Oct-10	5.10%	3.87%	1.23%	Oct-16	3.77%	2.50%	1.27%				
Nov-04	5.97%			Nov-10	5.37%	4.19%	1.18%	Nov-16	4.08%	2.86%	1.22%				
Dec-04	5.92%			Dec-10	5.56%	4.42%	1.14%	Dec-16	4.27%	3.11%	1.16%				

Common Equity Risk Premiums
Years 1926-2021

	<u>Large Common Stocks</u>	<u>Long- Term Corp. Bonds</u>	<u>Equity Risk Premium</u>	<u>Long- Term Govt. Bonds Yields</u>
Low Interest Rates	12.09%	5.28%	6.81%	2.80%
Average Across All Interest Rates	12.33%	6.40%	5.93%	4.92%
High Interest Rates	12.57%	7.52%	5.05%	7.03%

Source of Information: 2022 SBBI Yearbook Stocks, Bonds, Bills, and Inflation

Basic Series Annual Total Returns (except yields)			
Year	Large Common Stocks	Long- Term Corp. Bonds	Long- Term Govt. Bonds Yields
2020	18.40%	15.40%	1.37%
2021	28.71%	-2.66%	1.88%
1940	-9.78%	3.39%	1.94%
1945	36.44%	4.08%	1.99%
1941	-11.59%	2.73%	2.04%
1949	18.79%	3.31%	2.09%
1946	-8.07%	1.72%	2.12%
1950	31.71%	2.12%	2.24%
2019	31.49%	19.95%	2.25%
1939	-0.41%	3.97%	2.26%
1948	5.50%	4.14%	2.37%
1947	5.71%	-2.34%	2.43%
1942	20.34%	2.60%	2.46%
1944	19.75%	4.73%	2.46%
2012	16.00%	10.68%	2.46%
2014	13.69%	17.28%	2.46%
1943	25.90%	2.83%	2.48%
1938	31.12%	6.13%	2.52%
2017	21.83%	12.25%	2.54%
1936	33.92%	6.74%	2.55%
2011	2.11%	17.95%	2.55%
2015	1.38%	-1.02%	2.68%
1951	24.02%	-2.69%	2.69%
1954	52.62%	5.39%	2.72%
2016	11.96%	6.70%	2.72%
1937	-35.03%	2.75%	2.73%
1953	-0.99%	3.41%	2.74%
1935	47.67%	9.61%	2.76%
1952	18.37%	3.52%	2.79%
2018	-4.38%	-4.73%	2.84%
1934	-1.44%	13.84%	2.93%
1955	31.56%	0.48%	2.95%
2008	-37.00%	8.78%	3.03%
1932	-8.19%	10.82%	3.15%
1927	37.49%	7.44%	3.17%
1957	-10.78%	8.71%	3.23%
1930	-24.90%	7.98%	3.30%
1933	53.99%	10.38%	3.36%
1928	43.61%	2.84%	3.40%
1929	-8.42%	3.27%	3.40%
1956	6.56%	-6.81%	3.45%
1926	11.62%	7.37%	3.54%
2013	32.39%	-7.07%	3.78%
1960	0.47%	9.07%	3.80%
1958	43.36%	-2.22%	3.82%
1962	-8.73%	7.95%	3.95%
1931	-43.34%	-1.85%	4.07%
2010	15.06%	12.44%	4.14%
1961	26.89%	4.82%	4.15%
1963	22.80%	2.19%	4.17%
1964	16.48%	4.77%	4.23%
1959	11.96%	-0.97%	4.47%
1965	12.45%	-0.46%	4.50%
2007	5.49%	2.60%	4.50%
1966	-10.06%	0.20%	4.55%
2009	26.46%	3.02%	4.58%
2005	4.91%	5.87%	4.61%
2002	-22.10%	16.33%	4.84%
2004	10.88%	8.72%	4.84%
2006	15.79%	3.24%	4.91%
2003	28.68%	5.27%	5.11%
1998	28.58%	10.76%	5.42%
1967	23.98%	-4.95%	5.56%
2000	-9.10%	12.87%	5.58%
2001	-11.89%	10.65%	5.75%
1971	14.30%	11.01%	5.97%
1968	11.06%	2.57%	5.98%
1972	18.99%	7.26%	5.99%
1997	33.36%	12.95%	6.02%
1995	37.58%	27.20%	6.03%
1970	3.86%	18.37%	6.48%
1993	10.08%	13.19%	6.54%
1996	22.96%	1.40%	6.73%
1999	21.04%	-7.45%	6.82%
1969	-8.50%	-8.09%	6.87%
1976	23.93%	18.65%	7.21%
1973	-14.69%	1.14%	7.26%
1992	7.62%	9.39%	7.26%
1991	30.47%	19.89%	7.30%
1974	-26.47%	-3.06%	7.60%
1986	18.67%	19.85%	7.89%
1994	1.32%	-5.76%	7.99%
1977	-7.16%	1.71%	8.03%
1975	37.23%	14.64%	8.05%
1989	31.69%	16.23%	8.16%
1990	-3.10%	6.78%	8.44%
1978	6.57%	-0.07%	8.98%
1988	16.61%	10.70%	9.19%
1987	5.25%	-0.27%	9.20%
1985	31.73%	30.09%	9.56%
1979	18.61%	-4.18%	10.12%
1982	21.55%	42.56%	10.95%
1984	6.27%	16.86%	11.70%
1983	22.56%	6.26%	11.97%
1980	32.50%	-2.76%	11.99%
1981	-4.92%	-1.24%	13.34%

**Yields for Treasury Constant Maturities
Yearly for 2017-2021
and the Twelve Months Ended April 2022**

<u>Years</u>	<u>1-Year</u>	<u>2-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>7-Year</u>	<u>10-Year</u>	<u>20-Year</u>	<u>30-Year</u>
2017	1.20%	1.40%	1.58%	1.91%	2.16%	2.33%	2.65%	2.90%
2018	2.33%	2.53%	2.63%	2.75%	2.85%	2.91%	3.02%	3.11%
2019	2.05%	1.97%	1.94%	1.96%	2.05%	2.14%	2.40%	2.58%
2020	0.38%	0.40%	0.43%	0.54%	0.73%	0.89%	1.35%	1.56%
2021	0.10%	0.27%	0.46%	0.86%	1.19%	1.44%	1.98%	2.05%
Five-Year Average	<u>1.21%</u>	<u>1.31%</u>	<u>1.41%</u>	<u>1.60%</u>	<u>1.80%</u>	<u>1.94%</u>	<u>2.28%</u>	<u>2.44%</u>
<u>Months</u>								
May-21	0.05%	0.16%	0.32%	0.82%	1.28%	1.62%	2.22%	2.32%
Jun-21	0.07%	0.20%	0.39%	0.84%	1.23%	1.52%	2.09%	2.16%
Jul-21	0.08%	0.22%	0.40%	0.76%	1.07%	1.32%	1.87%	1.94%
Aug-21	0.07%	0.22%	0.42%	0.77%	1.06%	1.28%	1.83%	1.92%
Sep-21	0.08%	0.24%	0.47%	0.86%	1.16%	1.37%	1.87%	1.94%
Oct-21	0.11%	0.39%	0.67%	1.11%	1.40%	1.58%	2.03%	2.06%
Nov-21	0.18%	0.51%	0.82%	1.20%	1.45%	1.56%	1.97%	1.94%
Dec-21	0.30%	0.68%	0.95%	1.23%	1.40%	1.47%	1.90%	1.85%
Jan-22	0.55%	0.98%	1.25%	1.54%	1.70%	1.76%	2.15%	2.10%
Feb-22	1.00%	1.44%	1.65%	1.81%	1.91%	1.93%	2.31%	2.25%
Mar-22	1.34%	1.91%	2.09%	2.11%	2.15%	2.13%	2.51%	2.41%
Apr-22	1.89%	2.54%	2.72%	2.78%	2.80%	2.75%	2.99%	2.81%
Twelve-Month Average	<u>0.48%</u>	<u>0.79%</u>	<u>1.01%</u>	<u>1.32%</u>	<u>1.55%</u>	<u>1.69%</u>	<u>2.15%</u>	<u>2.14%</u>
Six-Month Average	<u>0.88%</u>	<u>1.34%</u>	<u>1.58%</u>	<u>1.78%</u>	<u>1.90%</u>	<u>1.93%</u>	<u>2.31%</u>	<u>2.23%</u>
Three-Month Average	<u>1.41%</u>	<u>1.96%</u>	<u>2.15%</u>	<u>2.23%</u>	<u>2.29%</u>	<u>2.27%</u>	<u>2.60%</u>	<u>2.49%</u>

Measures of the Risk-Free Rate & Corporate Bond Yields

The forecast of Treasury and Corporate yields
per the consensus of nearly 50 economists
reported in the Blue Chip Financial Forecasts dated December 1, 2021 and April 29, 2022

Year	Quarter	Treasury					Corporate	
		1-Year Bill	2-Year Note	5-Year Note	10-Year Note	30-Year Bond	Aaa Bond	Baa Bond
2022	Second	2.0%	2.6%	2.8%	2.8%	2.9%	4.0%	4.8%
2022	Third	2.4%	2.9%	3.0%	3.0%	3.1%	4.2%	5.1%
2022	Fourth	2.7%	3.0%	3.1%	3.1%	3.2%	4.4%	5.3%
2023	First	3.0%	3.2%	3.3%	3.3%	3.4%	4.6%	5.5%
2023	Second	3.1%	3.2%	3.3%	3.3%	3.5%	4.7%	5.6%
2023	Third	3.2%	3.2%	3.3%	3.3%	3.5%	4.8%	5.7%
Long-range CONSENSUS								
2023		1.0%	1.3%	1.9%	2.4%	2.9%	3.7%	4.6%
2024		1.6%	1.9%	2.4%	2.8%	3.3%	4.2%	5.0%
2025		2.1%	2.4%	2.8%	3.1%	3.6%	4.5%	5.3%
2026		2.4%	2.6%	2.9%	3.2%	3.7%	4.6%	5.5%
2027		2.5%	2.6%	2.9%	3.2%	3.7%	4.8%	5.6%
Averages:								
	2023-2027	1.9%	2.2%	2.6%	2.9%	3.4%	4.4%	5.2%
	2028-2032	2.4%	2.6%	3.0%	3.3%	3.8%	4.9%	5.7%

Measures of the Market Premium

Value Line Return			
As of:	Dividend Yield	Median Appreciation Potential	Median Total Return
29-Apr-22	1.9%	+ 11.58%	= 13.48%

DCF Result for the S&P 500 Composite				
D/P	(1+5g)	+	g	= k
1.54%	(1.0685)	+	13.7%	= 15.35%

Summary	
Value Line	13.48%
S&P 500	15.35%
Average	14.42%
Risk-free Rate of Return (Rf)	3.00%
Forecast Market Premium	11.42%
Historical Market Premium	
Low Interest Rates	(Rm) (Rf)
1926-2021 Arith. mean	12.09% 2.80%
Average - Forecast/Historical	9.29%
	10.36%

Comparable Earnings Approach

Using Non-Utility Companies with
Timeliness of 3, 4 & 5; Safety Rank of 1, 2 & 3; Financial Strength of B+, B++, A & A+;
Price Stability of 65 to 100; Betas of .80 to 1.00; and Technical Rank of 2, 3 & 4

Company	Industry	Timeliness Rank	Safety Rank	Financial Strength	Price Stability	Beta	Technical Rank
AAON Inc	Machinery	4	3	B+	75	0.85	4
Acushnet Holdings	Recreation	3	3	B++	75	0.95	4
Agilent Technologies	Precision Instrument	5	2	A	95	0.90	2
Altria Group Inc	Tobacco	4	3	B++	85	0.90	4
Archer Daniels Midland Company	Food Processing	4	1	A+	95	0.95	4
Assurant Inc	Financial Svcs. (Div.)	4	2	A	90	0.90	4
Ball Corp	Packaging & Container	3	2	B++	85	0.95	2
Bio Rad Laboratories Inc	Med Supp Non-Invasive	3	2	A	80	0.80	4
Bio-Techne Corp.	Biotechnology	3	2	A	70	0.90	2
Booz Allen Hamilton Holding Corporation	Industrial Services	3	3	B++	80	0.85	3
Brady Corp	Diversified Co.	3	3	B++	85	0.95	4
Broadridge Fin'l	Information Services	3	2	B++	95	0.85	4
Brown Forman Corp (Class B)	Beverage	5	1	A	90	0.90	4
BWX Technologies	Power	4	3	B++	70	0.85	4
Cable One	Cable TV	5	2	B++	85	0.90	3
Cardinal Health Inc	Med Supp Non-Invasive	3	3	A	65	1.00	3
Cboe Global Markets	Brokers & Exchanges	3	2	A	90	0.85	2
Cognizant Technology Solutions Corp	IT Services	5	2	A+	85	1.00	2
Commerce Bancshares Inc	Bank (Midwest)	3	1	A	95	0.90	3
Cooper Companies Inc	Med Supp Non-Invasive	3	2	A	85	1.00	2
CoStar Group Inc	Information Services	3	2	A+	70	0.90	3
DaVita Inc.	Medical Services	4	3	B++	65	1.00	3
Dorman Products Inc	Auto Parts	5	3	B++	65	0.80	3
ESCO Technologies Inc	Diversified Co.	4	3	B+	85	1.00	3
Expeditors International of Washington	Industrial Services	4	1	A+	95	0.95	4
Exponent Inc.	Information Services	3	3	B+	85	0.90	3
F5 Inc.	Telecom. Equipment	3	2	A	75	0.95	3
FactSet Research Systems Inc	Information Services	4	1	A+	90	0.95	3
Federal Signal Corp	Heavy Truck & Equip	4	3	B+	80	1.00	4
Forrester Research Inc	Information Services	3	3	B+	65	1.00	3
Gentex Corp	Auto Parts	3	2	B++	90	0.95	4
Graphic Packaging	Packaging & Container	3	3	B+	80	1.00	3
Hanover Insurance Group Inc	Insurance (Prop/Cas.)	3	2	A	95	0.95	3
Harris Corp.	Aerospace/Defense	4	2	A+	75	0.95	3
Hologic Inc	Med Supp Non-Invasive	3	3	B+	65	1.00	3
IDEX Corporation	Machinery	4	2	B++	100	1.00	4
IDEX Laboratories Inc	Med Supp Non-Invasive	3	3	A	70	1.00	4
Ingredion Incorporated	Food Processing	5	2	B++	90	0.95	4
Innospec Inc	Chemical (Specialty)	4	3	B++	80	1.00	2
International Business Machines Corp	Computers/Peripherals	3	2	B++	90	1.00	4
J and J Snack Foods Corp	Food Processing	3	1	A+	85	0.90	4
Juniper Networks Inc	Telecom. Equipment	4	2	A	85	1.00	2
Keysight Technologies	Precision Instrument	4	2	A	75	0.85	2
Knight-Swift Trans.	Trucking	3	3	B++	70	0.85	2
Kraft Heinz Co.	Food Processing	4	3	B++	70	0.85	4
Lennox International Inc	Machinery	4	3	B+	85	1.00	3
ManTech International Corporation	IT Services	3	3	B++	90	0.80	2
Marsh and McLennan Companies Inc	Financial Svcs. (Div.)	3	1	A+	100	0.95	4
Mercury General Corp	Insurance (Prop/Cas.)	5	3	B++	80	0.90	4
Mondelez International Inc	Food Processing	3	1	A	100	0.85	3
Motorola Solutions Inc	Telecom. Equipment	3	2	B++	95	0.90	2
MSCI Inc	Information Services	3	3	B+	80	1.00	2
Northwest Bancshares Inc	Thrift	5	3	B+	95	0.90	2
O'Reilly Automotive Inc	Retail Automotive	3	3	B++	75	0.95	2
Old National Bancorp	Bank (Midwest)	4	3	B+	80	0.95	2
Omnicom Group Inc	Advertising	4	3	B+	80	1.00	2
OSI Systems Inc	Precision Instrument	4	3	B++	80	0.90	3
Parsons Corp.	Aerospace/Defense	3	3	B+	65	0.95	4
Philip Morris International Inc	Tobacco	3	3	B++	75	0.95	4
Quest Diagnostics Inc	Medical Services	3	2	B++	90	0.80	2
Republic Services Inc	Environmental	4	1	A	100	0.90	3
Rollins Inc	Industrial Services	3	2	A	85	0.80	4
Schneider National	Trucking	3	3	B++	80	0.80	2
Selective Insurance Group Inc	Insurance (Prop/Cas.)	3	3	B+	90	0.90	3
Sensient Technologies Corp	Food Processing	3	2	B++	90	0.90	3
Sherwin Williams	Retail Building Supply	4	1	A+	95	0.90	3
Silgan Holdings Inc	Packaging & Container	3	2	B+	100	0.80	3
Synopsys Inc	Computer Software	3	1	A+	75	1.00	2
Tetra Tech	Environmental	3	3	B++	75	0.95	2
Trimas Corporation	Diversified Co.	3	3	B+	80	0.90	2
Tyler Technologies	IT Services	3	1	A+	85	0.80	2
UniFirst Corp	Industrial Services	5	2	A	90	0.95	4
Vail Resorts	Hotel/Gaming	3	3	B+	70	1.00	4
Verisk Analytics Inc	Information Services	3	2	B++	100	0.85	3
Viavi Solutions	Electronics	3	3	B+	75	0.95	2
Walgreens Boots	Retail Store	3	3	A	75	0.85	3
Waste Management	Environmental	3	1	A	100	0.80	3
Waters Corp	Precision Instrument	4	2	A	90	0.95	2
Watsco Inc	Retail Building Supply	3	1	A+	95	0.85	3
Wiley John and Sons Inc (Class A)	Publishing	5	3	B++	80	0.85	3
Zoetis Inc	Drug	3	2	B++	90	1.00	2
Average		4	2	B++	83	0.92	3
Gas Group	Average	4	2	A	88	0.87	3

Comparable Earnings Approach
Five -Year Average Historical Earned Returns
for Years 2017-2021 and
Projected 3-5 Year Returns

Company	2017	2018	2019	2020	2021	Average	Projected 2025-27
AAON Inc	21.1%	17.2%	18.5%	21.3%	12.6%	18.1%	16.5%
Acushnet Holdings	11.3%	11.2%	13.2%	9.8%	17.2%	12.5%	18.0%
Agilent Technologies	15.9%	19.9%	20.8%	21.0%	24.7%	20.5%	19.5%
Altria Group Inc	42.5%	51.0%	NMF	NMF	NMF	46.8%	NMF
Archer Daniels Midland Company	6.6%	9.5%	7.2%	8.9%	12.1%	8.9%	12.5%
Assurant Inc	12.2%	4.9%	6.8%	7.4%	11.2%	8.5%	9.0%
Ball Corp	7.7%	13.1%	19.2%	17.9%	24.2%	16.4%	27.5%
Bio Rad Laboratories Inc	2.2%	4.4%	3.7%	3.2%	10.0%	4.7%	6.5%
Bio-Techne Corp.	9.2%	9.8%	8.2%	11.0%	9.0%	9.4%	20.0%
Booz Allen Hamilton Holding Corporation	55.0%	58.8%	56.4%	50.8%	53.0%	54.8%	30.5%
Brady Corp	13.7%	14.9%	15.4%	13.0%	13.5%	14.1%	13.5%
Broadridge Fin'l	32.6%	46.1%	49.1%	43.7%	36.8%	41.7%	35.5%
Brown Forman Corp (Class B)	56.7%	50.7%	41.9%	29.1%	29.5%	41.6%	55.0%
BWX Technologies	71.1%	96.3%	60.4%	45.1%	46.5%	63.9%	38.0%
Cable One	18.0%	21.2%	21.2%	20.4%	16.3%	19.4%	26.0%
Cardinal Health Inc	18.9%	4.2%	21.5%	89.7%	91.4%	45.1%	68.0%
Cboe Global Markets	12.9%	13.1%	11.1%	13.9%	14.6%	13.1%	12.0%
Cognizant Technology Solutions Corp	21.0%	23.4%	20.3%	17.0%	18.1%	20.0%	15.5%
Commerce Bancshares Inc	11.8%	14.8%	13.4%	10.4%	15.4%	13.2%	13.0%
Cooper Companies Inc	11.7%	10.3%	12.9%	6.2%	9.5%	10.1%	11.0%
CoStar Group Inc	5.8%	10.0%	11.0%	7.1%	7.5%	8.3%	11.5%
DaVita Inc.	14.2%	16.4%	33.1%	56.6%	NMF	30.1%	44.0%
Dorman Products Inc	17.9%	19.2%	11.3%	13.1%	15.9%	15.5%	18.5%
ESCO Technologies Inc	8.6%	9.0%	9.9%	7.5%	6.7%	8.3%	10.0%
Expeditors International of Washington Inc	22.7%	31.1%	26.9%	26.2%	36.0%	28.6%	33.5%
Exponent Inc.	14.3%	23.0%	23.5%	22.8%	25.5%	21.8%	29.0%
F5 Inc.	34.2%	35.3%	24.3%	13.8%	14.0%	24.3%	16.0%
FactSet Research Systems Inc	46.1%	50.8%	52.5%	41.6%	42.5%	46.7%	42.5%
Federal Signal Corp	11.2%	16.5%	17.2%	14.7%	14.0%	14.7%	14.5%
Forrester Research Inc	15.8%	16.5%	19.6%	16.0%	17.5%	17.1%	12.5%
Gentex Corp	18.0%	23.5%	21.9%	17.7%	18.3%	19.9%	27.0%
Graphic Packaging	23.2%	11.9%	13.2%	11.7%	10.8%	14.2%	14.0%
Hanover Insurance Group Inc	6.8%	9.9%	11.4%	11.1%	11.4%	10.1%	10.5%
Harris Corp.	-	-	3.6%	5.4%	9.5%	6.2%	13.0%
Hologic Inc	10.7%	25.3%	22.8%	29.7%	44.4%	26.6%	15.5%
IDEX Corporation	17.9%	21.1%	19.6%	15.6%	17.2%	18.3%	19.0%
IDEXX Laboratories Inc	-	-	241.0%	92.0%	NMF	166.5%	43.0%
Ingredion Incorporated	19.5%	20.8%	16.4%	13.6%	14.4%	16.9%	17.0%
Innospec Inc	7.8%	10.3%	12.2%	3.0%	9.0%	8.5%	12.0%
International Business Machines Corp	72.8%	75.4%	54.9%	37.7%	47.3%	57.6%	41.5%
J and J Snack Foods Corp	11.6%	11.1%	11.4%	2.3%	6.6%	8.6%	11.5%
Juniper Networks Inc	17.3%	13.8%	13.0%	11.4%	13.3%	13.8%	27.0%
Keysight Technologies	4.4%	25.4%	30.0%	27.8%	30.8%	23.7%	16.5%
Knight-Swift Trans.	9.2%	8.4%	6.6%	8.0%	12.1%	8.9%	9.0%
Kraft Heinz Co.	6.6%	8.3%	6.8%	7.1%	7.3%	7.2%	8.5%
Lennox International Inc	NMF	-	-	-	-	-	NMF
ManTech International Corporation	4.7%	5.9%	7.6%	7.6%	8.2%	6.8%	9.0%
Marsh and McLennan Companies Inc	27.3%	29.5%	22.4%	22.1%	28.5%	26.0%	21.0%
Mercury General Corp	5.1%	6.2%	8.0%	15.1%	7.5%	8.4%	13.0%
Mondelez International Inc	12.5%	14.1%	13.2%	13.5%	15.2%	13.7%	16.0%
Motorola Solutions Inc	-	-	-	-	-	-	NMF
MSCI Inc	75.8%	-	-	NMF	NMF	75.8%	NMF
Northwest Bancshares Inc	7.6%	8.4%	8.2%	4.9%	9.7%	7.8%	9.5%
O Reilly Automotive Inc	NMF	NMF	NMF	NMF	NMF	-	NMF
Old National Bancorp	6.0%	7.1%	8.4%	7.6%	9.2%	7.7%	9.0%
Omnicom Group Inc	46.0%	52.1%	46.9%	30.7%	43.0%	43.7%	27.5%
OSI Systems Inc	3.7%	5.3%	11.7%	13.2%	11.6%	9.1%	12.5%
Parsons Corp.	-	24.5%	7.4%	5.4%	3.4%	10.2%	10.0%
Philip Morris International Inc	-	-	-	-	-	-	NMF
Quest Diagnostics Inc	16.2%	16.8%	15.9%	22.6%	26.3%	19.6%	17.0%
Republic Services Inc	10.3%	12.8%	13.2%	13.4%	14.5%	12.8%	15.5%
Rollins Inc	29.2%	32.5%	24.9%	27.7%	32.5%	29.4%	36.5%
Schneider National	20.6%	12.6%	6.6%	10.3%	16.5%	13.3%	16.5%
Selective Insurance Group Inc	10.8%	12.2%	12.0%	9.1%	12.8%	11.4%	13.0%
Sensient Technologies Corp	17.7%	18.3%	14.2%	11.7%	14.1%	15.2%	12.5%
Sherwin Williams	38.7%	47.1%	47.9%	62.6%	89.3%	57.1%	89.0%
Silgan Holdings Inc	20.7%	25.4%	18.9%	24.6%	23.0%	22.5%	16.5%
Synopsis Inc	16.4%	17.2%	17.2%	17.6%	20.3%	17.7%	22.0%
Tetra Tech	13.3%	15.4%	17.8%	17.0%	16.8%	16.1%	22.5%
Trimas Corporation	11.8%	13.1%	9.5%	11.8%	9.1%	11.1%	11.5%
Tyler Technologies	13.2%	14.6%	13.1%	11.5%	12.8%	13.0%	15.5%
UniFirst Corp	7.4%	10.2%	10.0%	7.8%	8.1%	8.7%	8.0%
Vail Resorts	13.4%	23.9%	20.1%	7.5%	8.0%	14.6%	23.0%
Verisk Analytics Inc	28.8%	28.9%	19.9%	26.4%	25.0%	25.8%	24.0%
Viavi Solutions	11.8%	14.8%	21.5%	24.1%	25.2%	19.5%	14.0%
Walgreens Boots	20.0%	23.0%	23.5%	20.2%	18.1%	21.0%	17.5%
Waste Management	23.7%	28.9%	26.6%	23.0%	28.5%	26.1%	32.5%
Waters Corp	27.0%	39.9%	-	NMF	NMF	33.5%	29.0%
Watsco Inc	15.3%	18.0%	17.1%	18.1%	25.2%	18.7%	28.5%
Wiley John and Sons Inc (Class A)	16.6%	14.2%	NMF	13.6%	14.0%	14.6%	12.0%
Zoetis Inc	66.8%	69.8%	64.8%	48.9%	49.3%	59.9%	43.0%
Average						23.3%	21.5%
Median						16.4%	16.5%
Average (excluding companies with values >20%)						12.5%	13.3%

Comparable Earnings Approach

Screening Parameters

Timeliness Rank

The rank for a stock's probable relative market performance in the year ahead. Stocks ranked 1 (Highest) or 2 (Above Average) are likely to outpace the year-ahead market. Those ranked 4 (Below Average) or 5 (Lowest) are not expected to outperform most stocks over the next 12 months. Stocks ranked 3 (Average) will probably advance or decline with the market in the year ahead. Investors should try to limit purchases to stocks ranked 1 (Highest) or 2 (Above Average) for Timeliness.

Safety Rank

A measure of potential risk associated with individual common stocks rather than large diversified portfolios (for which Beta is good risk measure). Safety is based on the stability of price, which includes sensitivity to the market (see Beta) as well as the stock's inherent volatility, adjusted for trend and other factors including company size, the penetration of its markets, product market volatility, the degree of financial leverage, the earnings quality, and the overall condition of the balance sheet. Safety Ranks range from 1 (Highest) to 5 (Lowest). Conservative investors should try to limit purchases to equities ranked 1 (Highest) or 2 (Above Average) for Safety.

Financial Strength

The financial strength of each of the more than 1,600 companies in the VS II data base is rated relative to all the others. The ratings range from A++ to C in nine steps. (For screening purposes, think of an A rating as "greater than" a B). Companies that have the best relative financial strength are given an A++ rating, indicating ability to weather hard times better than the vast majority of other companies. Those who don't quite merit the top rating are given an A+ grade, and so on. A rating as low as C++ is considered satisfactory. A rating of C+ is well below average, and C is reserved for companies with very serious financial problems. The ratings are based upon a computer analysis of a number of key variables that determine (a) financial leverage, (b) business risk, and (c) company size, plus the judgment of Value Line's analysts and senior editors regarding factors that cannot be quantified across-the-board for companies. The primary variables that are indexed and studied include equity coverage of debt, equity coverage of intangibles, "quick ratio", accounting methods, variability of return, fixed charge coverage, stock price stability, and company size.

Price Stability Index

An index based upon a ranking of the weekly percent changes in the price of the stock over the last five years. The lower the standard deviation of the changes, the more stable the stock. Stocks ranking in the top 5% (lowest standard deviations) carry a Price Stability Index of 100; the next 5%, 95; and so on down to 5. One standard deviation is the range around the average weekly percent change in the price that encompasses about two thirds of all the weekly percent change figures over the last five years. When the range is wide, the standard deviation is high and the stock's Price Stability Index is low.

Beta

A measure of the sensitivity of the stock's price to overall fluctuations in the New York Stock Exchange Composite Average. A Beta of 1.50 indicates that a stock tends to rise (or fall) 50% more than the New York Stock Exchange Composite Average. Use Beta to measure the stock market risk inherent in any diversified portfolio of, say, 15 or more companies. Otherwise, use the Safety Rank, which measures total risk inherent in an equity, including that portion attributable to market fluctuations. Beta is derived from a least squares regression analysis between weekly percent changes in the price of a stock and weekly percent changes in the NYSE Average over a period of five years. In the case of shorter price histories, a smaller time period is used, but two years is the minimum. The Betas are periodically adjusted for their long-term tendency to regress toward 1.00.

Technical Rank

A prediction of relative price movement, primarily over the next three to six months. It is a function of price action relative to all stocks followed by Value Line. Stocks ranked 1 (Highest) or 2 (Above Average) are likely to outpace the market. Those ranked 4 (Below Average) or 5 (Lowest) are not expected to outperform most stocks over the next six months. Stocks ranked 3 (Average) will probably advance or decline with the market. Investors should use the Technical and Timeliness Ranks as complements to one another.

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
RATE OF RETURN SUMMARY

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S):

SCHEDULE D-1A-S
PAGE 1 OF 1
WITNESS RESPONSIBLE:
MOUL

LINE NO.	CLASS OF CAPITAL	REFERENCE	ACTUAL AMOUNT \$000	% OF TOTAL	(%) COST	WEIGHTED COST %
1	Long-term debt	D-3-S	1,782,926	49.40%	4.49%	2.22%
2						
3	Preferred stock	D-4-S	-	0.00%	0.00%	0.00%
4						
5	Common equity	D-1.1-S	1,826,055	50.60%	11.30%	5.72%
6						
7	Total capital		3,608,981	100.00%		7.94%
8						
9	Accumulated deferred investment					
10	tax credit - Acct 255		5,361			
11						
12	Accumulated deferred income					
13	taxes - Acct 281 (accel amort)		0			
14						
15	Accumulated deferred income					
16	taxes - Acct 282		522,272			
17						
18	Accumulated deferred income					
19	taxes - Acct 283		136,525			

NISOURCE INC.
CASE NO. 21-637-GA-AIR
RATE of RETURN SUMMARY
AS OF MARCH 31, 2021

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-1B-S
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	CLASS of CAPITAL	REFERENCE	AMOUNT (\$000)	% of TOTAL	COST	WEIGHTED COST
1	Long-term debt	D-3-S	8,848,961	59.49%	4.63%	2.75%
2						
3	Preferred stock	D-4-S	880,000	5.92%	6.26%	0.37%
4						
5	Common equity	D-1.1-S	<u>5,145,676</u>	<u>34.59%</u>		<u>Not Determined</u>
6						
7	Total capital		<u><u>14,874,638</u></u>	<u><u>100.00%</u></u>		<u><u>Not Determined</u></u>
8						
9	Accumulated deferred investment					
10	tax credit - Acct 255		<u><u>8,247</u></u>			
11						
12	Accumulated deferred income					
13	taxes - Acct 281 (accel amort)		<u><u>0</u></u>			
14						
15	Accumulated deferred income					
16	taxes - Acct 282		<u><u>429,385</u></u>			
17						
18	Accumulated deferred income					
19	taxes - Acct 283		<u><u>2,259,728</u></u>			

COLUMBIA GAS OF OHIO, INC
CASE NO. 21-637-GA-AIR
COMMON EQUITY
AS OF MARCH 31, 2021

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-1.1-S
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	CLASS of CAPITAL	COMMON STOCK (\$000)	PAID-IN CAPITAL (\$000)	RETAINED EARNINGS (\$000)	OTHER MISC. COMMON EQUITY (\$000)	INTERCOMPANY ELIMINATIONS (\$000)	REFERENCE	TOTAL COMMON EQUITY (\$000)
1	Columbia Gas of Ohio, Inc.	159,240	279,213	1,387,603	-	-	D-1A-S	1,826,055
2	NiSource Inc.	3,961	6,892,916	(1,669,868)	(81,332)	-	D-1B-S	5,145,676

COLUMBIA GAS OF OHIO, INC
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF SHORT-TERM DEBT

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S).:

SCHEDULE D-2A-S
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	ISSUE (A)	<u>AMOUNT OUTSTANDING</u>		INTEREST RATE (C)	INTEREST REQUIREMENT (D)
		<u>Notes Payable & Commercial Paper</u> (B)	<u>Current Maturities of LTD</u>		
		(\$)		(%)	(\$)

N/A - Rule Waiver

NISOURCE INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF SHORT-TERM DEBT

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S).:

SCHEDULE D-2B-S
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	ISSUE (A)	<u>AMOUNT OUTSTANDING</u>		INTEREST RATE (C)	INTEREST REQUIREMENT (D)
		<u>Notes Payable & Commercial Paper</u> (B)	<u>Current Maturities of LTD</u>		
		(\$)		(%)	(\$)

N/A - Rule Waiver

LINE NO.	DEBT ISSUE TYPE, COUPON RATE	DATE ISSUED (DAY/MO/YR) (A)	MATURITY DATE (DAY/MO/YR) (B)	PRINCIPAL AMOUNT (C)	FACE AMOUNT OUTSTANDING (D)	UNAMORT. (DISCOUNT) OR PREMIUM (E)	UNAMORT. DEBT EXPENSE (F)	UNAMORT. LOSS ON REACQUIRED DEBT (G)	CARRYING VALUE (H=D+E-F-G)	ANNUAL INTEREST COST (I)
1 PROMISSORY NOTES PAYABLES										
2	SERIES	3.224%	1-Nov-06	1-Nov-21	110,000,000	110,000,000			110,000,000	3,545,850
3	SERIES	5.920%	28-Nov-05	28-Nov-25	89,926,000	89,926,000			89,926,000	5,323,619
4	SERIES	6.865%	14-Dec-07	14-Dec-27	50,000,000	50,000,000			50,000,000	3,432,500
5	SERIES	5.910%	21-Dec-10	20-Dec-30	37,500,000	37,500,000			37,500,000	2,216,250
6	SERIES	6.100%	21-Dec-10	21-Dec-35	37,500,000	37,500,000			37,500,000	2,287,500
7	SERIES	4.630%	28-Nov-12	29-Nov-32	10,000,000	10,000,000			10,000,000	463,000
8	SERIES	4.940%	28-Nov-12	30-Nov-37	95,000,000	95,000,000			95,000,000	4,693,000
9	SERIES	5.260%	28-Nov-12	28-Nov-42	95,000,000	95,000,000			95,000,000	4,997,000
10	SERIES	6.290%	18-Dec-13	18-Dec-43	100,000,000	100,000,000			100,000,000	6,290,000
11	SERIES	4.430%	18-Dec-14	16-Dec-44	60,000,000	60,000,000			60,000,000	2,658,000
12	SERIES	4.607%	30-Nov-15	30-Nov-45	178,000,000	178,000,000			178,000,000	8,200,460
13	SERIES	4.437%	30-Nov-16	30-Nov-46	150,000,000	150,000,000			150,000,000	6,656,100
14	SERIES	4.112%	29-Sep-17	29-Sep-47	150,000,000	150,000,000			150,000,000	6,168,450
15	SERIES	4.528%	29-Jun-18	29-Jun-48	170,000,000	170,000,000			170,000,000	7,697,430
16	SERIES	4.287%	29-Mar-19	29-Mar-49	80,000,000	80,000,000			80,000,000	3,429,600
17	SERIES	3.174%	30-Jun-20	30-Jun-50	300,000,000	300,000,000			300,000,000	9,522,000
18	SERIES	3.652%	31-Mar-21	31-Mar-51	70,000,000	70,000,000			70,000,000	2,556,470
19 Current Maturities					-	-	-	-	-	-
20	Total				1,782,926,000	1,782,926,000	-	-	-	1,782,926,000 80,137,229
21 Embedded Cost of Long-Term Debt (I / H)										4.49%

NISOURCE INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF LONG-TERM DEBT

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S).:

SCHEDULE D-3B-S
PAGE 1 OF 2
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DEBT ISSUE TYPE, COUPON RATE		DATE ISSUED (DAY/MO/YR) (A)	MATURITY DATE (DAY/MO/YR) (B)	PRINCIPAL AMOUNT (C)	FACE AMOUNT OUTSTANDING (D)	UNAMORT. (DISCOUNT) OR PREMIUM (E)	CARRYING VALUE (F=D+E)	ANNUAL AMORTIZATION COST (G)	ANNUAL COUPON COST (H)	ANNUAL INTEREST COST (I=H+G)
1	Medium Term Notes										
2	NiSource Inc.										
3	Notes	7.990%	31-Mar-97	1-Apr-22	6,000,000	6,000,000	(6,220)	5,993,780	5,742	479,400	485,142
4	Notes	7.990%	31-Mar-97	1-Apr-22	8,000,000	8,000,000	(8,294)	7,991,706	7,656	639,200	646,856
5	Notes	7.990%	31-Mar-97	1-Apr-22	6,000,000	6,000,000	(6,220)	5,993,780	5,742	479,400	485,142
6	Notes	7.990%	5-May-97	5-May-27	29,000,000	29,000,000	(88,936)	28,911,064	14,422	2,317,100	2,331,522
7	Northern Indiana										
8	Series E	7.400%	26-Aug-97	30-Aug-22	10,000,000	10,000,000	(4,208)	9,995,792	3,000	740,000	743,000
9	Series E	7.690%	6-Jun-97	7-Jun-27	20,000,000	20,000,000	(30,808)	19,969,192	5,004	1,538,000	1,543,004
10	Series E	7.690%	6-Jun-97	7-Jun-27	33,000,000	33,000,000	(50,847)	32,949,153	8,256	2,537,700	2,545,956
11	Series E	7.160%	4-Aug-97	4-Aug-27	5,000,000	5,000,000	(7,974)	4,992,026	1,248	358,000	359,248
12	Bay State										
13	Notes	6.430%	15-Dec-95	15-Dec-25	10,000,000	10,000,000		10,000,000	-	643,000	643,000
14	Notes	6.260%	11-Feb-98	15-Feb-28	30,000,000	5,000,000		5,000,000	-	313,000	313,000
15	Amortization for both Notes						(561,455)	(561,455)	104,316	-	104,316
16	Total Medium Notes				157,000,000	132,000,000	(764,962)	131,235,038	155,385	10,044,800	10,200,185
17	Senior Notes:										
18	NiSource Inc.										
19	Notes	0.950%	18-Aug-20	15-Aug-25	1,250,000,000	1,250,000,000	(11,014,031)	1,238,985,969	2,541,700	11,875,000	14,416,700
20	Notes	3.490%	22-May-17	15-May-27	1,000,000,000	1,000,000,000	(5,776,482)	994,223,518	949,559	34,900,000	35,849,559
21	Notes	6.780%	1-Dec-97	1-Dec-27	3,000,000	3,000,000	(9,545)	2,990,455	1,414	203,400	204,814
22	Notes	2.950%	12-Aug-19	1-Sep-29	750,000,000	750,000,000	(6,365,333)	743,634,667	763,840	22,125,000	22,888,840
23	Notes	3.600%	13-Apr-20	1-May-30	1,000,000,000	1,000,000,000	(10,961,820)	989,038,180	1,217,980	36,000,000	37,217,980
24	Notes	1.700%	18-Aug-20	15-Feb-31	750,000,000	750,000,000	(6,438,352)	743,561,648	654,748	12,750,000	13,404,748
25	Notes	6.250%	8-Dec-10	15-Dec-40	250,000,000	152,602,000	(2,145,839)	150,456,161	109,110	9,537,625	9,646,735
26	Notes	5.950%	10-Jun-11	15-Jun-41	400,000,000	347,397,000	(2,760,298)	344,636,702	136,874	20,670,122	20,806,996
27	Notes	5.800%	23-Nov-11	1-Feb-42	250,000,000	250,000,000	(1,880,165)	248,119,835	90,248	14,500,000	14,590,248
28	Notes	5.250%	14-Jun-12	15-Feb-43	500,000,000	500,000,000	(3,598,942)	496,401,058	164,837	26,250,000	26,414,837
29	Notes	4.800%	12-Apr-13	15-Feb-44	750,000,000	750,000,000	(7,220,270)	742,779,730	316,216	36,000,000	36,316,216
30	Notes	5.650%	10-Oct-13	1-Feb-45	500,000,000	500,000,000	(5,834,097)	494,165,903	244,787	28,250,000	28,494,787
31	Notes	4.375%	22-May-17	15-May-47	1,000,000,000	1,000,000,000	(12,140,431)	987,859,569	465,448	43,750,000	44,215,448
32	Notes	3.950%	14-Sep-17	30-Mar-48	750,000,000	750,000,000	(7,948,229)	742,051,771	294,379	29,625,000	29,919,379
33	Total Sentior Notes				9,153,000,000	9,002,999,000	(84,093,834)	8,918,905,166	7,951,140	326,436,147	334,387,287

NISOURCE INC.
CASE NO. 21-0637-GA-AIR
EMBEDDED COST OF LONG-TERM DEBT

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S):

SCHEDULE D-3B-S
PAGE 2 OF 2
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DEBT ISSUE TYPE, COUPON RATE	DATE ISSUED (DAY/MO/YR) (A)	MATURITY DATE (DAY/MO/YR) (B)	PRINCIPAL AMOUNT (C)	FACE AMOUNT OUTSTANDING (D)	UNAMORT. (DISCOUNT) OR PREMIUM (E)	CARRYING VALUE (F=D+E)	ANNUAL AMORTIZATION COST (G)	ANNUAL COUPON COST (H)	ANNUAL INTEREST COST (I=H+G)
34	Total Medium & Senior Notes			9,310,000,000	9,134,999,000	(84,858,796)	9,050,140,204	8,106,525	336,480,947	344,587,472
35	Costs Related to Early Extinguishment of Long-Term Debt:									
36	2010 Tender Offer - \$273.1M 10.75% notes		12/31/40	0	0	(63,664,102)	(63,664,102)	3,223,500	0	3,223,500
37	2011 Tender Offer - \$125.3M 10.75% and \$124.7M 6.15% notes		12/31/31	0	0	(28,861,313)	(28,861,313)	2,695,220	0	2,695,220
38	2017 Tender Offer - \$990.7M in total		05/15/27	0	0	(34,231,130)	(34,231,130)	5,588,756	0	5,588,756
39	2017 Tender Offer - \$990.7M in total		05/15/47	0	0	(48,605,620)	(48,605,620)	1,860,502	0	1,860,502
40	2018 Redemption - \$760.2M in total (only 5 year allocation)		06/15/23	0	0	(9,535,937)	(9,535,937)	4,318,160	0	4,318,160
41	2020 Redemption - \$1.579B in total - 5 year allocation		08/15/25	0	0	(130,093,567)	(130,093,567)	29,455,147	0	29,455,147
42	2020 Redemption - \$1.579B in total - 10 year allocation		02/15/31	0	0	(82,721,836)	(82,721,836)	8,341,698	0	8,341,698
43	Total Costs Related to Early Extinguishment of Long-Term Debt			0	0	(397,713,504)	(397,713,504)	55,482,983	0	55,482,983
44	Finance Leases:									
45	NiSource Corporate Services	2.190%	Multiple	Multiple	48,013,847	48,013,847	48,013,847		1,051,503	1,051,503
46	Northern Indiana	1.790%	Multiple	Multiple	20,284,749	20,284,749	20,284,749		363,097	363,097
47	Columbia of Ohio	6.160%	Multiple	Multiple	90,234,303	90,234,303	90,234,303		5,558,433	5,558,433
48	Columbia of Virginia	6.300%	Multiple	Multiple	18,276,556	18,276,556	18,276,556		1,151,423	1,151,423
49	Columbia of Kentucky	3.790%	Multiple	Multiple	263,613	263,613	263,613		9,991	9,991
50	Columbia of Pennsylvania	5.650%	Multiple	Multiple	19,461,658	19,461,658	19,461,658		1,099,584	1,099,584
51	Total Finance Leases			196,534,726	196,534,726	-	196,534,726	-	9,234,031	9,234,031
52	Total Medium Term, Senior, Early Extinguishment & Leases			\$9,506,534,726	\$9,331,533,726	\$(482,572,300)	\$8,848,961,426	\$ 63,589,508	\$345,714,977	\$ 409,304,486
53	Embedded Cost of Long-Term Debt (I / F)								4.63%	

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF PREFERRED STOCK

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S):

SCHEDULE D-4A-S
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DIVIDEND RATE, TYPE, PAR VALUE	DATE ISSUED (A)	AMOUNT OUTSTANDING (B)	PREMIUM OR DISCOUNT (C)	ISSUE EXPENSE (D)	GAIN OR LOSS ON REACQUIRED STOCK (E)	NET PROCEEDS (F=B+C-D+E)	COST RATE AT ISSUE (G)	ANNUALIZED DIVIDENDS (H=G*B)
-------------	-----------------------------------	-----------------------	------------------------------	-------------------------------	-------------------------	---	--------------------------------	------------------------------	------------------------------------

Columbia Gas of Ohio, Inc. does not have any preferred stock outstanding.

NISOURCE INC.
CASE NO. 21-637-GA-AIR
EMBEDDED COST OF PREFERRED STOCK

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S).:

SCHEDULE D-4B-S
PAGE 1 OF 1
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DIVIDEND RATE, TYPE, PAR VALUE	DATE ISSUED (A)	AMOUNT OUTSTANDING (B)	PREMIUM OR DISCOUNT (C)	NET PROCEEDS (D=B+C)	COST RATE AT ISSUE (E)	ANNUALIZED DIVIDENDS (F=E*B)
	NiSource Inc.						
	Series A	11-Jun-18	400,000,000	(6,100,000)	393,900,000	5.65%	22,600,000
	Series B	5-Dec-18	500,000,000	(13,900,000)	486,100,000	6.50%	32,500,000
	Total Preferred Stock		900,000,000	(20,000,000)	880,000,000		55,100,000
	Embedded Cost of Long-Term Debt (F / D)						<u>6.26%</u>

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5A-S
PAGE 1 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
1	PLANT DATA (\$000 omitted):											
2	<u>Gas Plant</u>											
3	Intangible	179,022	145,764	143,535	128,053	128,058	113,618	113,932	114,040	44,444	42,199	33,062
4	Production-Mfg. Gas	-	-	-								
5	Underground Storage	-	-	-								
6	Storage-Local	-	-	-								
7	Transmission	-	-	-								
8	Distribution	5,018,579	4,963,207	4,622,643	4,246,723	3,954,365	3,666,807	3,355,529	3,052,431	2,815,566	2,576,267	2,357,744
9	General	76,353	75,648	72,657	75,188	74,714	71,542	74,250	71,030	47,202	46,734	46,225
10	Total Gas Plant-Gross	5,273,954	5,184,619	4,838,835	4,449,964	4,157,137	3,851,967	3,543,711	3,237,501	2,907,212	2,665,200	2,437,031
11	Less: Accum. Provision for Depr. and Amort.	1,334,920	1,272,605	1,190,593	1,108,803	1,030,911	977,045	945,063	883,979	855,869	826,003	793,530
12	Gas Plant in Service-Net	3,939,034	3,912,014	3,648,242	3,341,161	3,126,226	2,874,922	2,598,648	2,353,522	2,051,343	1,839,197	1,643,501
13												
14	<u>Electric Plant</u>											
15	Intangible	-	-	-	-	-	-	-	-	-	-	-
16	Production Plant-Steam	-	-	-	-	-	-	-	-	-	-	-
17	Production Plant-Hydro	-	-	-	-	-	-	-	-	-	-	-
18	Production Plant-Other	-	-	-	-	-	-	-	-	-	-	-
19	Transmission	-	-	-	-	-	-	-	-	-	-	-
20	Distribution	-	-	-	-	-	-	-	-	-	-	-
21	General	-	-	-	-	-	-	-	-	-	-	-
22	Total Electric Plant-Gross	-	-	-	-	-	-	-	-	-	-	-
23	Less: Accum. Provision for Depr. and Amort.	-	-	-	-	-	-	-	-	-	-	-
24	Electric Plant in Service-Net	-	-	-	-	-	-	-	-	-	-	-
25												
26	<u>Common Plant</u>											
27	Common Plant	-	-	-	-	-	-	-	-	-	-	-
28	Less: Accum. Provision for Depr. and Amort.	-	-	-	-	-	-	-	-	-	-	-
29	Common Plant in Service-Net	-	-	-	-	-	-	-	-	-	-	-
30												
31	Plant Held for Future Use	68	68	68	68	68	68	68	68	68	68	68
32												
33	Acquisition Adjustments	-	-	-	-	-	-	-	-	-	-	-
34												
35	Construction Work in Progress	117,918	86,130	56,802	56,969	40,306	30,550	23,215	14,875	38,828	38,123	23,614
36												
37	Net Utility Plant	4,057,020	3,998,212	3,705,111	3,398,198	3,166,600	2,905,540	2,621,931	2,368,465	2,090,238	1,877,387	1,667,183
38												
39	Composite depreciation rates											
40	Columbia Gas of Ohio, Inc. - Gas (%)	2.30%	2.34%	2.32%	2.35%	2.34%	2.33%	2.29%	2.32%	2.38%	2.37%	2.34%

[illegible]

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S).: See Below

SCHEDULE D-5A
PAGE 3 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
1	STOCK AND BOND RATINGS:											
2												
3	FIXED CHARGE COVERAGE:											
4	Pre-tax interest coverage	6.16	4.44	4.03	8.14	7.37	10.49	9.83	7.59	6.92	6.37	6.21
5	Pre-tax interest coverage (excluding AFUDC)	4.46	3.33	3.06	3.24	3.03	4.00	4.76	4.45	4.40	4.15	4.91
6	After tax interest coverage	5.23	3.85	3.70	11.60	5.23	7.22	6.69	5.22	4.79	4.44	4.58
7	Indenture provision coverage	-	-	-	-	-	-	-	-	-	-	-
8	Fixed charge coverage	4.24	2.87	2.71	10.61	4.25	6.15	5.55	4.22	3.86	3.80	3.24
9												
10	Percentage of Construction Expenditures											
11	Financed Internally	563.93	71.55	56.23	152.29	-83.72	98.04	66.60	81.30	75.86	141.23	57.39

COLUMBIA GAS OF OHIO, INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5A
PAGE 4 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
1	COMMON STOCK RELATED DATA: (a)											
2	Shares outstanding - year end (000)											
3	Shares outstanding - weighted average											
4	(monthly) (000)											
5	Earnings per share - weighted average (\$)											
6	Earnings per share - weighted											
7	average - assuming dilution (\$)											
8	Dividends paid per share (\$)											
9	Dividends declared per share (\$)											
10	Dividend pay out ratio (declared basis) (%)											
11	Market price - High-Low (\$)											
12	1st quarter - High											
13	- Low											
14	2nd quarter - High											
15	- Low											
16	3rd quarter - High											
17	- Low											
18	4th quarter - High											
19	- Low											
20	Book value per share (year-end) (\$)											
21												
22	RATE OF RETURN MEASURES:											
23	Return on common equity (average) (%)	2.92	9.03	9.00	18.22	8.62	11.91	13.11	13.16	12.31	11.96	14.78
24	Return on total capital (average) (%)	1.47	4.66	4.83	9.67	4.38	6.04	6.84	6.83	6.34	6.63	8.58
25	Return on net plant in service (average) - Total Company '	1.90	6.09	6.07	6.01	5.53	7.00	7.99	8.29	8.14	7.96	12.40

[illegible]

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B-S
PAGE 1 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	PLANT DATA (\$000 omitted):						
2	<u>Gas Plant</u>						
3	Intangible						
4	Production-Mfg. Gas						
5	Underground Storage						
6	Storage-Local						
7	Transmission						
8	Distribution						
9	General						
10	Total Gas Plant-Gross	14,248,973	14,010,200	14,989,700	13,776,000	12,531,000	11,556,600
11	Less: Accum. Provision for Depr. and Amort.	3,349,456	3,292,900	3,556,000	3,373,800	3,227,800	3,119,200
12	Gas Plant in Service-Net	10,899,517	10,717,300	11,433,700	10,402,200	9,303,200	8,437,400
13							
14	<u>Electric Plant</u>						
15	Intangible						
16	Production Plant-Steam						
17	Production Plant-Hydro						
18	Production Plant-Other						
19	Transmission						
20	Distribution						
21	General						
22	Total Electric Plant-Gross	7,501,045	6,478,000	8,902,300	8,374,200	7,403,800	7,043,300
23	Less: Accum. Provision for Depr. and Amort.	2,341,765	2,305,000	3,973,800	3,809,500	3,673,200	3,442,000
24	Electric Plant in Service-Net	5,159,279	4,173,000	4,928,500	4,564,700	3,730,600	3,601,300
25							
26	<u>Corporate Plant</u>						
27	Corporate Plant	216,934	197,300	153,300	155,800	141,300	105,000
28	Less: Accum. Provision for Depr. and Amort.	115,239	109,300	79,500	74,600	52,600	52,500
29	Corporate Plant in Service-Net	101,695	88,000	73,800	81,200	88,700	52,500
30							
31	Plant Held for Future Use	-	-	-	-	-	-
32							
33	Acquisition Adjustments	-	-	-	-	-	-
34							
35	Construction Work in Progress	676,210	572,600	457,300	474,800	950,500	663,100
36							
37	Net Utility Plant	16,836,701	15,550,900	16,893,300	15,522,900	14,073,000	12,754,300
38							
39	Composite depreciation rates						
40	NiSource, Inc. - Gas (%)	2.30%	2.30%	2.50%	2.20%	2.10%	2.10%
41	NiSource, Inc. - Electric (%)	3.40%	3.40%	2.80%	2.90%	3.40%	3.30%

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B-S
PAGE 2 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	CAPITAL STRUCTURE:						
2	Total debt (\$000)	8,848,961	9,243,100	7,869,600	7,155,400	7,796,500	6,421,300
3	Preferred trust securities (\$000)	-	-	-	-	-	-
4	Preferred stock (\$000)	880,000	880,000	880,000	880,000	-	-
5	Common equity (\$000)	5,145,676	4,957,800	5,106,700	4,870,900	4,320,100	4,071,200
6	CONDENSED INCOME STATEMENT DATA:						
7	Operating revenues (\$000,000)	N/A	4,681.7	5,208.9	5,114.5	4,874.6	4,492.5
8	Operating expenses (excluding FIT						
9	and SIT) (\$000,000)	N/A	4,130.9	4,318.2	4,989.8	3,953.4	3,626.4
10	Operating income (\$000,000)	N/A	550.8	890.7	124.7	921.2	866.1
11	Total income taxes (\$000,000)	N/A	(17.1)	123.5	(180.0)	314.5	182.1
12	AFUDC - Debt and Equity (\$000,000)	N/A	(7.0)	(7.5)	(9.1)	(6.2)	(5.6)
13	Other income - net (\$000,000)	N/A	32.1	(5.2)	43.5	(13.5)	(3.0)
14	Extraordinary item (\$000,000)	N/A	0.0	0.0	0.0	0.0	0.0
15	Net income (\$000,000)	N/A	(72.7)	328.0	(65.6)	128.5	331.5
16	Net income applicable to Common Stock (\$000,000)	N/A	(72.7)	328.0	(65.6)	128.5	331.5
17	INCOME AVAILABLE FOR FIXED CHARGES:						
18	Interest charges (\$000)	N/A	370,700	378,900	353,300	353,200	349,500
19	Net income before preferred dividend requirements						
20	of subsidiaries (\$000)	N/A	(17,600)	383,100	(50,600)	128,500	331,500
21	Preferred dividend requirements of subsidiaries (\$000)	N/A	55,100	55,100	15,000	-	-
22	Cost of reacquisition of Preferred Stock (\$000)	N/A	-	-	-	-	-
23	Earnings available for common equity (\$000)	N/A	(72,700)	328,000	(65,600)	128,500	331,500
24	AFUDC - % of net income before preferred dividend	N/A					
25	requirements of subsidiaries	N/A	39.77	(1.96)	17.98	(4.82)	(1.69)
26	AFUDC - % of earnings available for common equity	N/A	9.63	(2.29)	13.87	(4.82)	(1.69)
27	COST OF CAPITAL:						
28	Embedded cost of long-term debt (%)	4.63%	4.63%	4.55%	4.72%	4.96%	5.51%
29	Embedded cost of preferred stock (%)	6.26%	6.26%	6.26%	6.26%	0.00%	0.00%

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B-S
PAGE 3 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	STOCK AND BOND RATINGS:	Baa2	Baa2	Baa2	Baa2	Baa2	Baa2
2							
3	FIXED CHARGE COVERAGE:						
4	Pre-tax interest coverage	N/A	1.57	2.34	0.48	2.57	2.47
5	Pre-tax interest coverage (excluding AFUDC)	N/A	1.54	2.29	0.46	2.53	2.43
6	After tax interest coverage	N/A	1.62	2.01	0.99	1.68	1.95
7	Indenture provision coverage	N/A	-	-	-	-	-
8	Fixed charge coverage	N/A	(0.04)	0.88	(0.14)	0.36	0.95
9							
10	Percentage of Construction Expenditures						
11	Financed Internally	N/A	18.08	48.07	16.02	-44.15	55.91

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S): See Below

SCHEDULE D-5B-S
PAGE 4 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	COMMON STOCK RELATED DATA:						
2	Shares outstanding - year end (000)	N/A	384,300	376,000	356,500	329,400	321,800
3	Shares outstanding - weighted average						
4	(monthly) (000)	N/A	384,300	374,600	356,500	329,400	321,800
5	Earnings per share - weighted average (\$)	N/A	-1.9	8.80	-1.80	3.90	10.03
6	Earnings per share - weighted	N/A					
7	average - assuming dilution (\$)	N/A	-1.90	8.70	-1.80	3.90	10.20
8	Dividends paid per share (\$)	0.22	0.84	0.80	0.78	0.70	0.64
9	Dividends declared per share (\$)	0.44	0.84	0.80	0.78	0.70	0.64
10	Dividend pay out ratio (declared basis) (%)	N/A	-444.03%	91.37%	-423.89%	179.44%	62.13%
11	Market price - High-Low (\$)						
12	1st quarter - High	24.36	30.21	28.82	25.36	24.09	23.56
13	- Low	21.26	20.86	25.07	22.51	21.84	19.46
14	2nd quarter - High	N/A	26.85	29.44	26.28	26.44	26.52
15	- Low	N/A	22.33	27.30	23.27	23.66	22.13
16	3rd quarter - High	N/A	24.81	30.56	28.08	27.23	26.77
17	- Low	N/A	21.39	27.63	24.56	25.17	23.23
18	4th quarter - High	N/A	25.07	29.73	27.62	27.58	23.62
19	- Low	N/A	21.53	26.04	24.31	24.66	21.41
20	Book value per share (year-end) (\$)	N/A	13.12	13.63	13.66	13.12	12.65
21							
22	RATE OF RETURN MEASURES:						
23	Return on common equity (average) (%)	N/A	(1.44)	6.57	(1.43)	3.06	8.38
24	Return on total capital (average) (%)	N/A	(0.50)	2.45	(0.52)	1.14	3.20
25	Return on net plant in service (average) - Total Company %	N/A	3.40	5.50	0.84	6.87	6.97

NISOURCE INC.
CASE NO. 21-637-GA-AIR
COMPARATIVE FINANCIAL DATA

DATE OF CAPITAL STRUCTURE: MARCH 31, 2021
TYPE OF FILING: SUPPLEMENTAL TESTIMONY - ACTUAL UPDATE
WORK PAPER REFERENCE NO(S).: See Below

SCHEDULE D-5B-S
PAGE 5 OF 5
WITNESS RESPONSIBLE:
P.R. MOUL

LINE NO.	DESCRIPTION	TEST YEAR	2020	2019	2018	2017	2016
1	<u>Other Financial and Operating Data:</u>						
2	Mix of Sales (\$000)						
3	Gas revenues	N/A	3,128,100	3,509,700	3,406,400	3,087,900	2,818,200
4	Electric revenues	N/A	1,535,900	1,698,400	1,707,400	1,785,700	1,660,800
5	Other	N/A	17,700	800	700	1,000	13,500
6	Total	N/A	4,681,700	5,208,900	5,114,500	4,874,600	4,492,500
7	Mix of Sales (%)						
8	Gas	N/A	66.82%	67.38%	66.60%	63.35%	62.73%
9	Electric	N/A	32.81%	32.61%	33.38%	36.63%	36.97%
10	Other	N/A	0.38%	0.02%	0.01%	0.02%	0.30%
11	Total	N/A	100.00%	100.00%	100.00%	100.00%	100.00%
12	Mix of Fuel (\$000)						
13	Gas	N/A	794,200	1,067,600	1,259,300	1,005,000	895,400
14	Electric	N/A	315,200	467,300	502,100	513,900	495,000
15	Other	N/A	-	-			
16	Total	N/A	1,109,400	1,534,900	1,761,400	1,518,900	1,390,400
17	Mix of Fuel (%)						
18	Gas	N/A	71.59%	69.56%	71.49%	66.17%	64.40%
19	Electric	N/A	28.41%	30.44%	28.51%	33.83%	35.60%
20	Other	N/A	0.00%	0.00%	0.00%	0.00%	0.00%
21	Total	N/A	100.00%	100.00%	100.00%	100.00%	100.00%

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

5/13/2022 3:48:30 PM

in

Case No(s). 21-0637-GA-AIR, 21-0638-GA-ALT, 21-0639-GA-UNC, 21-0640-GA-AAM

Summary: Testimony Prepared Supplemental Direct Testimony of Paul Moul on behalf of Columbia Gas of Ohio, Inc. electronically filed by Ms. Melissa L. Thompson on behalf of Columbia Gas of Ohio, Inc.