Columbia Exhibit No.

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Columbia Gas of Ohio, Inc. for Authority to Amend its Filed Tariffs to Increase the Rates and Charges for Gas Services and Related Matters.	)))))	Case No. 21-637-GA-AIR
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval of an Alternative Form of Regulation.	)))	Case No. 21-638-GA-ALT
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval of a Demand Side Management Program for its Residential and Commercial Customers.	)))))	Case No. 21-639-GA-UNC
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval to Change Accounting Methods.	)))	Case No. 21-640-GA-AAM

PREPARED DIRECT TESTIMONY OF
MELISSA BARTOS
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

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July 14, 2021

PREPARED DIRECT TESTIMONY
OF MELISSA BARTOS

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Melissa Bartos. I am employed by Concentric Energy Advisors ("Concentric") and my business address is 293 Boston Post Road West, Suite 500, Marlborough, MA 01752.

Q: What is your current position and what are your responsibilities?

A: My current title is Vice President and I am responsible for the execution of numerous projects related to the energy industry. I specialize in demand forecasting, rates and regulatory issues, and market analysis.

Q: What is your educational background?

A: I received a Bachelor of Arts in Mathematics and Psychology with a concentration in Computer Science in 1998 from the College of the Holy Cross in Worcester, Massachusetts. I received a Master of Science degree in Mathematics with a concentration in Statistics in 2003 from the University of Massachusetts at Lowell.

Q: What is your employment history?

A: My entire career has been in energy consulting. I began my career with Reed Consulting Group, which was later purchased and merged into Navigant Consulting, Inc. I joined what is now Concentric in 2002. Both firms specialize in consulting for the energy industry. Attachment MB-1 describes my professional experience.

Q: What is the purpose of your testimony in this proceeding?

A: My testimony supports the adjustments to January 2021 through March 2021 residential and commercial customer counts necessary to remove the customer count and usage effects of temporary programs implemented by Columbia Gas of Ohio, Inc. ("Columbia" or the "Company") to address customer hardships during the COVID-19 pandemic.[1]

[1] While my testimony quantifies the adjustments for January 2021 through March 2021 (i.e., through the Date Certain), similar adjustments to actual data for additional months of the Test Year will also be necessary.

II. COLUMBIA'S TEMPORARY COVID-19 CUSTOMER ASSISTANCE PROGRAMS

Q. What customer assistance programs did the Company implement during the COVID-19 pandemic?

A. The Company voluntarily implemented three major programs to assist customers during the COVID-19 pandemic. The Company suspended disconnects for non-payment across the entire service territory for several months to provide customers additional time to pay their bills. In addition, the Company suspended disconnects in specific counties when those counties were identified as having "severe exposure and spread" of COVID-19. The Company also reconnected customers with a de minimis down payment and offered additional payment options during the COVID-19 pandemic.

Q. Please describe the Company's temporary program to suspend disconnects for non-payment across the entire service territory.

A. Typically, customers who do not pay their natural gas bill are eventually disconnected from the system, after several communications and being offered participation in the Company's payment programs. In early 2020, it became clear that COVID-19 was going to have a significant impact on health and economic conditions worldwide. In Ohio, the Governor declared a State of Emergency on March 9, 2020, and shortly thereafter Ohio schools were closed and stay at home orders were initiated.[2] As a result of the impact that COVID-19 was having statewide, the Company filed a Motion to Suspend disconnects for non-payment across its service territory on March 18, 2020, which continued until July 29, 2020.[3] During this period, customers who did not pay their natural gas bill were not disconnected and were allowed to continue to receive natural gas service.

Q. Please describe the Company's temporary program to suspend disconnects for non-payment when counties were identified as having "severe exposure and spread" of COVID-19.

A. In July 2020, the Ohio Public Health Advisory System ("System") was initiated to identify the degree of COVID-19 spread in each county across the

[2] Mike DeWine, Governor State of Ohio, Executive Order 2020-01D Declaring a State of Emergency, March 9, 2020; Amy Acton, Director, Ohio Department of Health, Directors' Order in Re: Order the Closure of all K-12 Schools in the State of Ohio, March 14, 2020; Amy Acton, Director, Ohio Department of Health, Directors' Stay at Home Order, March 22, 2020.

[3] Transition Plan of Columbia Gas of Ohio, Inc., Case No. 20-0637-GA-UNC, May 29, 2020.

state.[4] The System consisted of four color-coded levels to provide guidance regarding the severity of COVID-19 spread and was updated weekly. Purple/Level 4 was defined as "Severe exposure and spread" and contained directions to "Only leave home for supplies and services."[5] After the Company's territory-wide suspension of disconnects for non-payment ended, the Company began a program to suspend disconnects for non-payment for each county in Purple/Level 4 status. Suspending disconnects in Purple/Level 4 COVID-19 counties ensured that customers facing the greatest challenges were allowed to continue service and protected customers and Columbia's employees by eliminating the need for on-site visits by employees. Franklin County, which has the largest amount of Columbia's customers, was Purple/Level 4 status for the last two weeks in November 2020 and for two weeks in April 2021. Figure 1 summarizes the dates that counties in the Company's service territory were in Purple/Level 4 status, and therefore had suspensions of disconnects for non-payment. On May 27, 2021, the Ohio Department of Health terminated the Ohio Public Health Advisory System, citing the decline in COVID-19 cases and increases in vaccinations.[6] As a result, the Company's temporary suspension of disconnects in counties identified as being Purple/Level 4 has also ended.

[4] Ohio Department of Health, Public Health Advisory System, Covid-19 Dashboard, https://coronavirus.ohio.gov/wps/portal/gov/covid-19/dashboards/other-resources/public-health-advisory-system (accessed June 4, 2021)

[5] Ohio Department of Public Health, Summary of Alert Indicators, November 25, 2020, https://coronavirus.ohio.gov/static/OPHASM/Summary-Alert-Indicators.pdf (accessed June 4, 2021)

[6] Ohio Department of Health, Public Health Advisory System, Covid-19 Dashboard, https://coronavirus.ohio.gov/wps/portal/gov/covid-19/dashboards/other-resources/public-health-advisory-system (accessed June 4, 2021)

Figure 1: Columbia Gas of Ohio Counties in Purple/Level 4 COVID-19 Status

County	Purple/Level 4 Weeks
Franklin	November 19, 2020 November 25, 2020 April 15, 2021 April 22, 2021
Summit	December 3, 2020 December 10, 2020
Stark	December 3, 2020 December 10, 2020
Lorain	November 25, 2020 December 3, 2020
Medina	December 3, 2020 December 10, 2020
Richland	December 3, 2020 December 10, 2020 December 17, 2020

Q. Please describe the Company's flexible arrangements to assist customers reconnecting and paying their bills during COVID-19.

A. The Company initiated an on-bill payment program that allowed residential and commercial customers to automatically enroll in a payment plan by making an additional payment with their monthly bill. This program ended on August 26, 2020. Likewise, Columbia waived customer deposits required for reconnection from residential and small commercial customers with credit requirements from March 16, 2020, through November 1, 2020. In addition, the Company allowed residential customers to pay as little as $10 to maintain or re-establish service and offered an additional payment plan up to 12 months for customers experiencing extreme circumstances.

III. IMPACT OF COLUMBIA'S TEMPORARY COVID-19 CUSTOMER ASSISTANCE PROGRAMS ON RESIDENTIAL AND COMMERCIAL CUSTOMER COUNTS

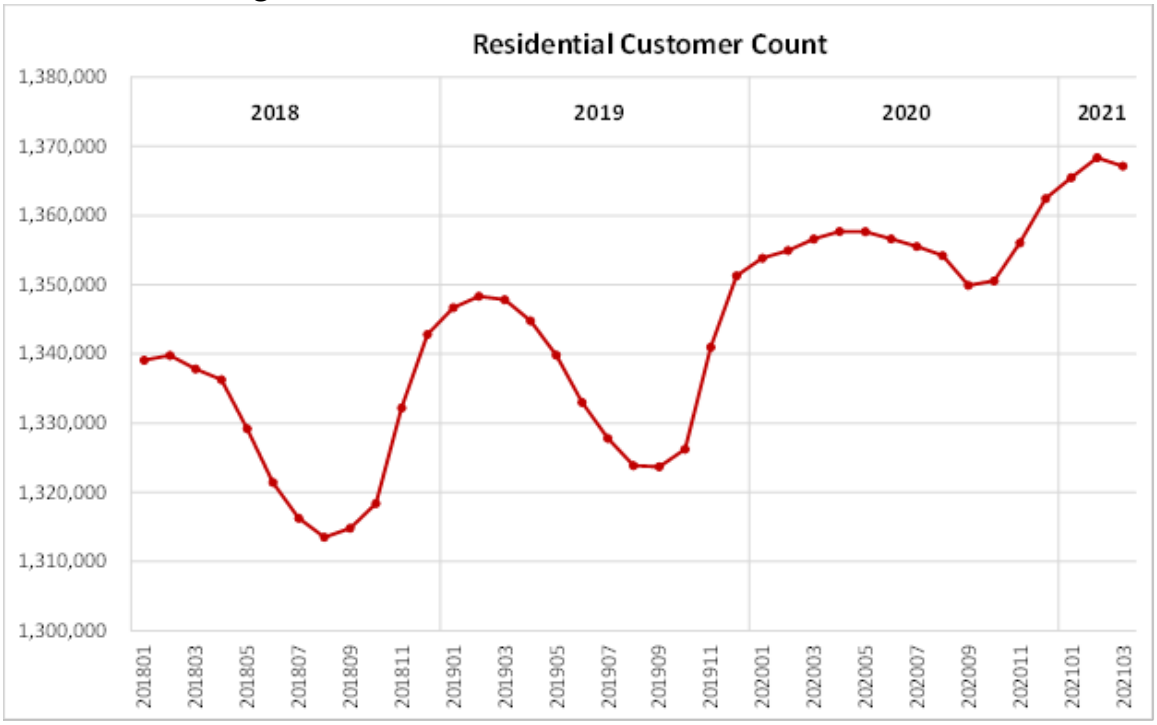
Q. Please explain how residential customer counts since the start of the COVID-19 pandemic compare to historical residential customer counts.

A. Historical residential customer counts from January 2018 through March 2021 are illustrated in Figure 2. As illustrated in the graph, historically, residential customer counts have shown consistent seasonality, with customer

counts being the highest in the winter and decreasing in the summer. In 2018 and 2019, the decrease between winter peak (February) and summer valley (August/September) residential customer counts averaged approximately 25,000 customers. In 2020, this pattern changed, and customer counts stayed relatively consistent throughout the year, decreasing only approximately 5,000 customers between February and September.

In addition, early 2021 residential customer counts show increased growth compared to previous years. In 2019, January and February customer counts were approximately 8,000 higher than 2018 January and February customer counts. In 2020, January and February customer counts were approximately 7,000 higher than the previous year. However, in 2021, January and February customer counts were approximately 12,500 higher than the previous year. Bottom line, the residential customer counts throughout much of 2020 and early 2021 appear to be inflated compared to what would have been expected based on data from prior years.

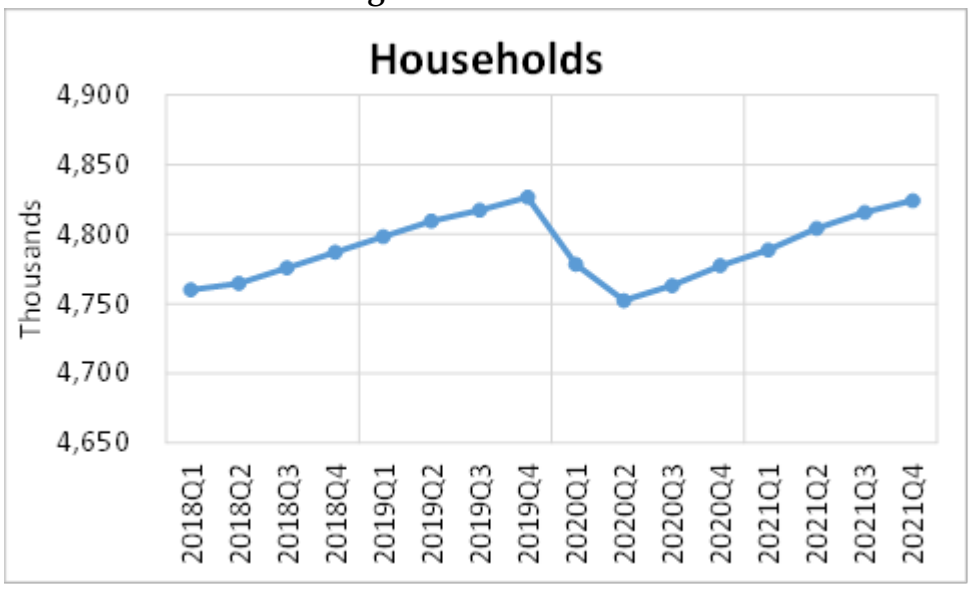
Figure 2: Historical Actual Residential Customer Count



Q. Can the inflated residential customer counts in 2020 and early 2021 be explained by underlying economic factors?

A. No. Based on statistical analysis, year-to-year changes in Columbia's residential customer counts have a strong relationship to changes in the number of Ohio households before 2020. As shown in Figure 3, according to IHS-Global Insight, Ohio households grew steadily throughout 2018 and 2019, but declined significantly in the first two quarters of 2020, and are projected to return to late 2019 levels by the end of 2021. Based on this household data, it would be expected that Columbia's residential customer counts in 2020 and 2021 would have decreased compared to 2019 levels. Again, it appears that actual residential customer counts in 2020 and 2021 are inflated compared to what would be expected based on underlying economic data.

Figure 3: Ohio Households

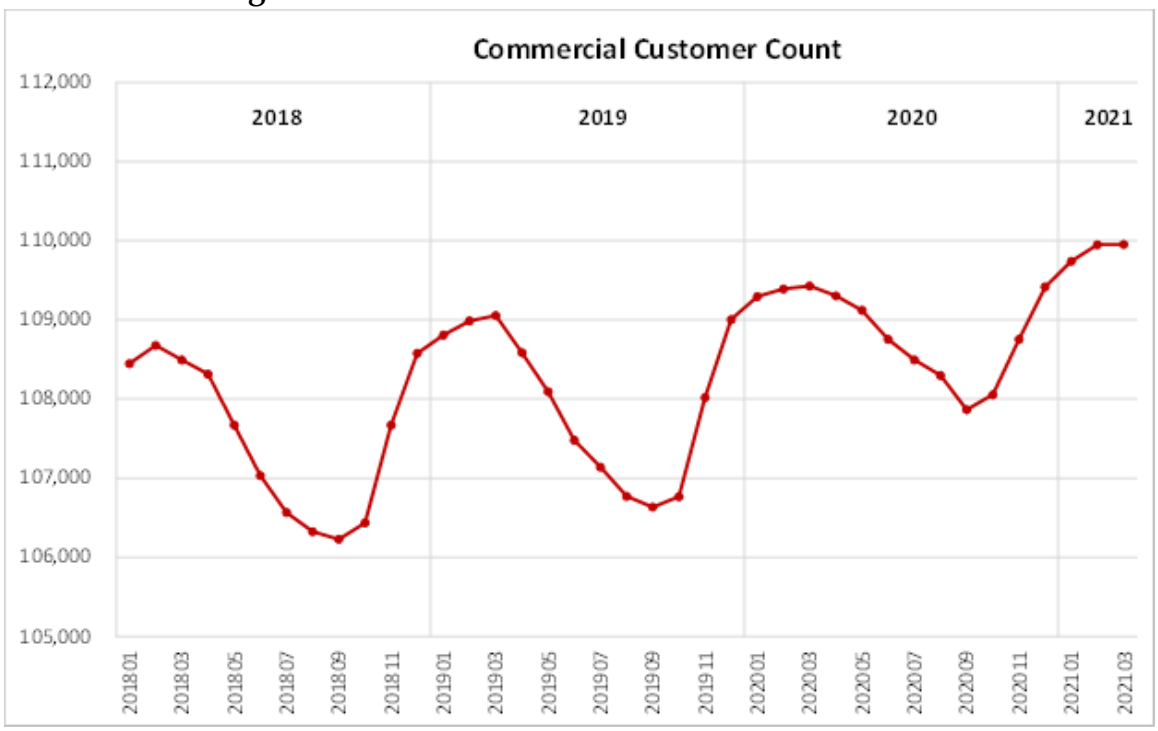


Q. Please explain how commercial customer counts in 2020 and early 2021 compare to historical commercial customer counts.

A. Historical commercial customer counts from January 2018 through March 2021 are illustrated in the following graph. As illustrated in Figure 4, historically, commercial customer counts have shown consistent seasonality, with customer counts being the highest in the winter and decreasing in the summer. In 2018 and 2019, the decrease between winter peak (February/March) and summer valley (September) commercial customer counts averaged approximately 2,400 customers. In 2020, this pattern changed, and customer counts decreased only approximately 1,600 customers between

March and September. While it is not as pronounced as the residential customers, the commercial customer counts throughout much of 2020 and early 2021 appear to be inflated compared to what would have been expected based on data from prior years.

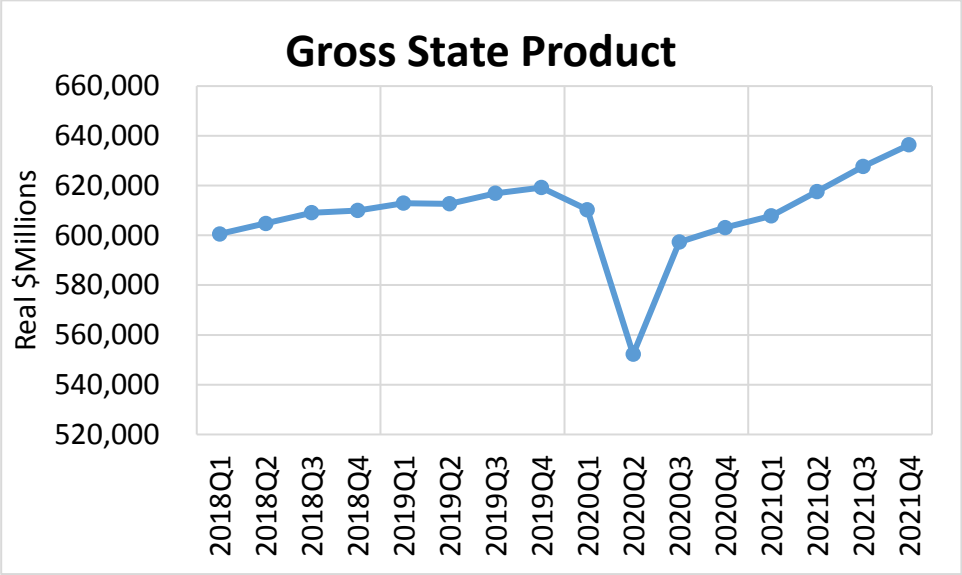
Figure 4: Historical Actual Commercial Customer Count



Q. Can the inflated commercial customer counts in 2020 and early 2021 be explained by underlying economic factors?

A. No. Based on statistical analysis, year-to-year changes in Columbia's commercial customer counts before 2020 have a strong relationship to changes in Ohio gross state product. As shown in Figure 5, according to IHS-Global Insight, Ohio gross state product was flat to growing throughout 2018 and 2019, but declined in the first two quarters of 2020, and is projected to return to late 2019 levels in the middle of 2021. Based on this gross state product data, it would be expected that commercial customer counts in 2020 and early 2021 would have decreased compared to 2019 levels. Again, it appears that actual commercial customer counts in 2020 and 2021 are inflated compared to what would be expected based on the underlying economic data.

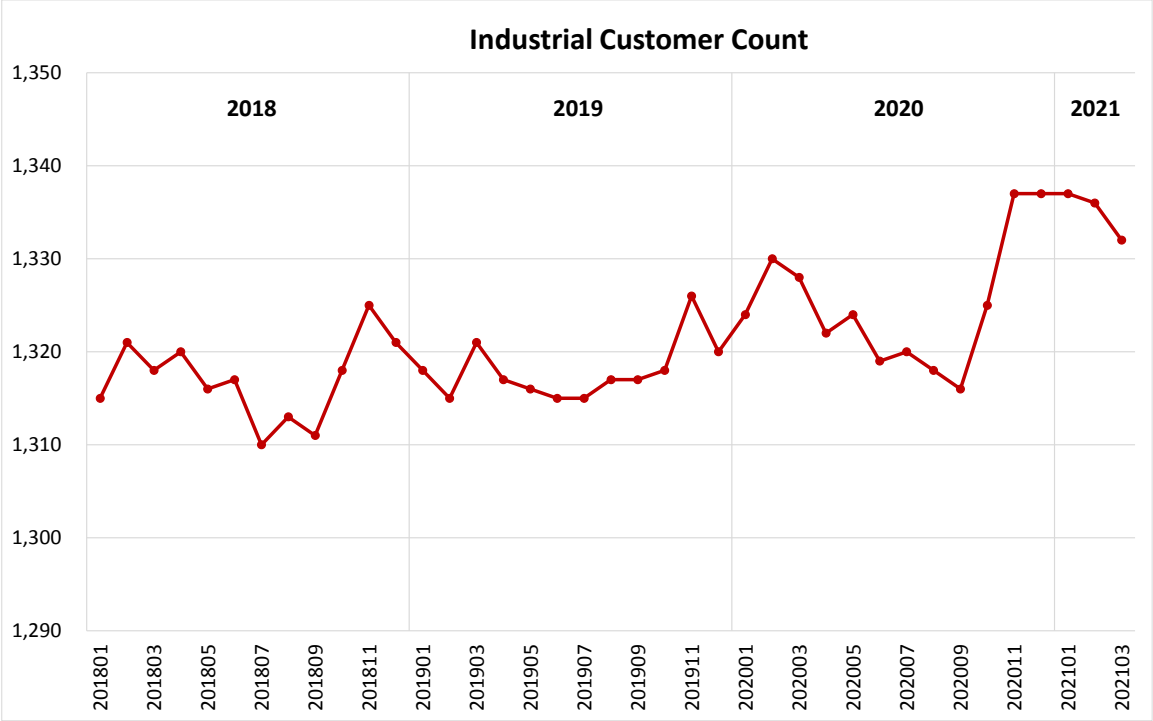
Figure 5: Ohio Gross State Product



Q. Please explain how industrial customer counts in 2020 and early 2021 compare to historical commercial customer counts.

A. Historical industrial customer counts from January 2018 through March 2021 are illustrated in the following graph. As illustrated in Figure 6, historically, industrial customer counts are more consistent and show less defined seasonality than residential and commercial customer counts. The industrial customer counts throughout 2020 and early 2021 do not appear to be materially inflated. For example, the decline in industrial customer counts from February 2020 to September 2020 is actually more than the February/March to summer declines in 2018 and 2019.

Figure 6: Historical Actual Industrial Customer Count



Q. To what do you attribute the 2020 and early 2021 inflated residential and commercial customer counts?

A. Based on the analysis described above, I largely attribute the inflated residential and commercial customer counts to Columbia's temporary COVID-19 customer assistance programs.

Q. Please explain why you believe the inflated residential and commercial customer counts in 2020 and early 2021 are largely the result of Columbia's temporary COVID-19 customer assistance programs.

A. As demonstrated, residential and commercial customer counts throughout 2020 and 2021 are higher than what would have been expected using a simple extrapolation of history and well as what would have been expected based on relevant underlying economic indicators. Therefore, some outside factor or factors must be causing the inflated customer counts. Given that the deviations from expectations began at the beginning of the Company's COVID-19 customer assistance program that suspended disconnects due to non-payment system wide, and that customer counts remained much more stable compared to previous years during this suspension period, it is reasonable to expect that the Company's suspension of disconnects led to inflated customer counts. As shown in the residential and commercial customer count graphs above, the largest decline in customer counts for both

classes in 2020 occurred between August and September, just after the end of the Company's system-wide suspension of disconnects. In addition, it is reasonable to expect that the Company's periodic partial suspension of disconnects in Level 4/Purple counties as well as additional flexible payment plans to assist customers during this challenging time would also lead to fewer customers being disconnected than under normal circumstances, resulting in inflated customer counts.

Q. Do you believe that industrial customer counts in 2020 and early 2021 are materially inflated due to Columbia's temporary COVID-19 customer assistance programs?

A. No. Based on the industrial customer count data for January 2018 through March 2021 and the fact that some of the Company's programs were focused on residential and commercial customers, I do not believe there is enough evidence to conclude that industrial customer counts are materially inflated due to Columbia's temporary COVID-19 customer assistance programs.

IV. NECESSARY ADJUSTMENTS TO JANUARY 2021 THROUGH MARCH 2021 RESIDENTIAL AND COMMERCIAL BILLING DETERMINANTS

Q. Why is it necessary to adjust January 2021 through March 2021 residential and commercial customer counts to remove the effects of the Company's temporary COVID-19 customer assistance programs?

A. Billing determinants used to develop rates should be based on normal operating conditions. Therefore, the effects of short-term anomalous conditions should be removed from billing determinants when designing rates. One common example of this concept is weather normalizing historical customer usage to remove the effects of abnormal weather conditions before using the usage data to develop rates. The effects of the Company's COVID-19 customer assistance programs are another example of temporary, abnormal conditions that should be "normalized" before using the customer and usage data to develop rates.

Q. How did you calculate the necessary adjustment for January 2021 through March 2021 residential customer counts?

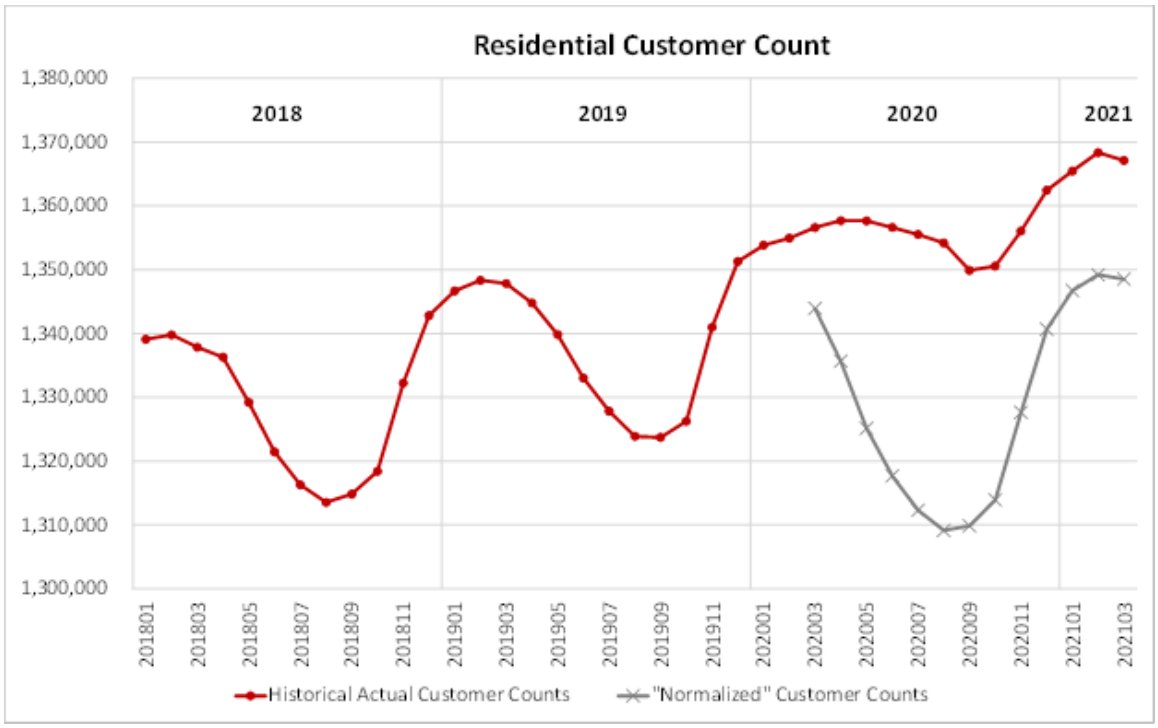
A. Working with the Company, I developed a statistical model to estimate the difference between actual residential customer counts since the beginning of COVID-19 and what would have been expected under normal circumstances that did not include the Company's temporary COVID-19 customer

assistance programs. Specifically, a regression model was developed using historical monthly residential customer counts from January 2012 through March 2021, Ohio households, and monthly shaping variables. Statistical analysis demonstrates that residential customer counts began to deviate from expectations starting in February 2020 by a relatively small amount,[7] and these deviations increased and continued through the end of the period analyzed (i.e., March 2021). Specific estimates of these monthly deviations from expectations are determined through including an indicator variable[8] in the model for each month of February 2020 through March 2021 to account for differences from what would have been expected under normal circumstances. Each of these indicator variables is statistically significant in the regression model. Subtracting the coefficient value of the indicator variable from the corresponding month's actual customer count produces the customer count that would have been expected had normal historical relationships between residential customer counts and Ohio households remained intact. The gray line in Figure 7 illustrates the expected 2020 and early 2021 residential customer counts under normal operating conditions based on my analysis. As illustrated in the graph, actual January 2021 through March 2021 residential customer counts are inflated by approximately 19,000 customers each month.

[7] The IHS-Global Insight data is quarterly. The Company assumes the quarterly data applies to the middle month of the quarter (i.e., February, May, August, and November) and uses linear interpolation to estimate monthly values to use in its monthly modeling. Due to this, the 2020Q1 decline in households began to affect the relationship between residential customer counts and households in February 2020 even though the Company's COVID-19 customer assistance programs did not begin until March 2020.

[8] In this case, an indicator variable (or dummy variable) is an independent variable that represents a time related event. The indicator variable equals 1 when the specific time-related event occurs and equals 0 outside of that specific time. The coefficient on the indicator variable is determined through the econometric modeling process. Statistical results associated with the econometric model identifies whether the indicator variable is significant.

Figure 7: Historical Actual and "Normalized" Residential Customer Count

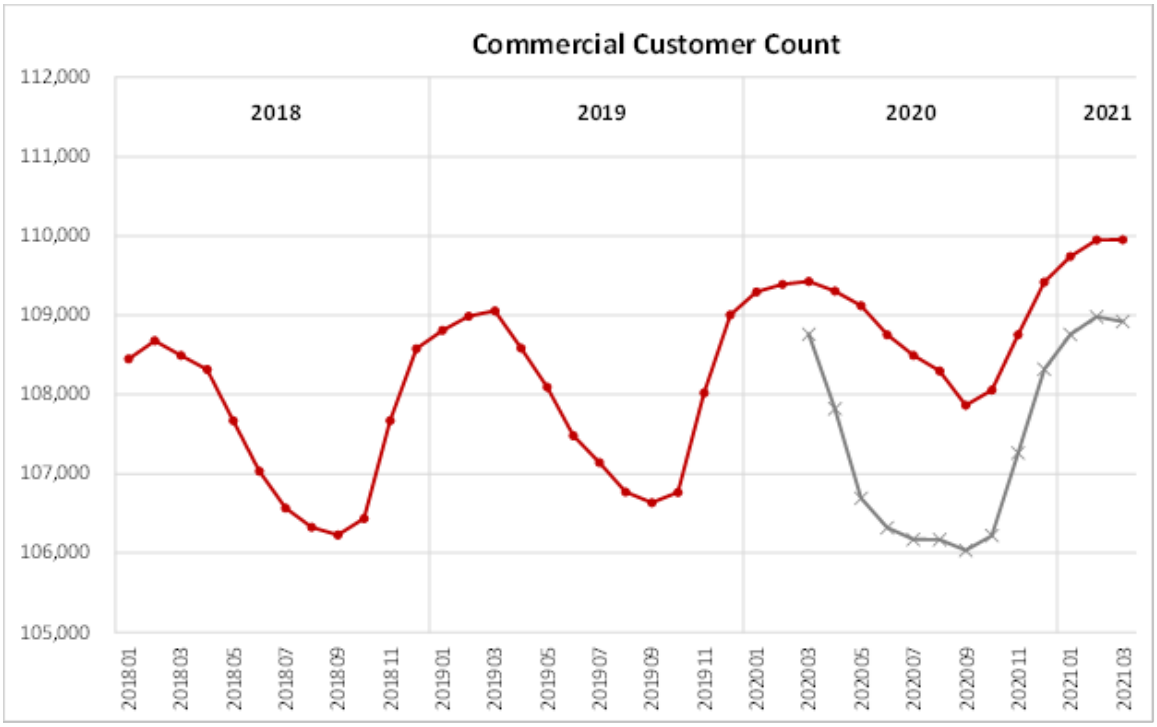


Q. How did you calculate the necessary adjustment for January 2021 through March 2021 commercial customer counts?

A. Similar to the methodology described for the residential customer count adjustment described above, working with the Company I developed a statistical model to estimate how the actual commercial customer counts since the beginning of COVID-19 differed from what would have been expected under normal circumstances that did not include the Company's temporary COVID-19 customer assistance programs. Specifically, a regression model was developed using historical monthly commercial customer counts from January 2012 through March 2021, Ohio gross state product, and monthly shaping variables. Statistical analysis demonstrates that commercial customer counts began to deviate from expectations starting in March 2020 and these deviations increased and continued through the end of the period analyzed (i.e., March 2021). Specific estimates of these monthly deviations from normal are determined through including an indicator variable in the model for each month of March 2020 through March 2021 to account for differences from what would have been expected under normal circumstances. Each of these indicator variables is statistically significant in the regression model. Subtracting the coefficient value of the indicator variable

from the corresponding month's actual customer count produces the customer count that would have been expected had normal historical relationships between commercial customer counts and Ohio gross state product remained intact. The gray line in Figure 8 illustrates the expected 2020 and early 2021 residential customer counts under normal operating conditions based on my analysis. As illustrated in the graph, actual January 2021 through March 2021 commercial customer counts are inflated by approximately 1,000 customers each month.

Figure 8: Historical Actual and "Normalized" Commercial Customer Count



Q. What specific adjustment are you recommending for January 2021 through March 2021 customer counts?

A. As summarized in Figure 9, I recommend that the actual customer counts for early 2021 be normalized by reducing January, February, and March 2021 commercial customer counts by a total of 19,736, 20,111, and 19,634, respectively.

Figure 9: Residential and Commercial Customer Count Adjustments

	Residen-tial	Commer-cial	Total
Jan-21	(18,752)	(984)	(19,736)
Feb-21	(19,142)	(969)	(20,111)
Mar-21	(18,602)	(1,032)	(19,634)

Q. Does Company data regarding the number of disconnects during the COVID-19 pandemic compared to previous periods corroborate your customer count adjustments?

A. Yes. Under normal circumstances, customers who do not pay their bill are eventually disconnected from the system. As shown in Figure 10, from 2015 through 2019, the Company disconnected an average of 82,345 customers each year for non-payment. In contrast, in 2020, the company disconnected fewer than 30,000 customers. Many customers who are disconnected for non-payment are eventually reconnected to the system after making necessary payments. In 2015 through 2019, an average of 64,696 customers were reconnected after non-payment, for a net loss of 17,649 customers on average per year over the 2015 through 2019 period due to the disconnect/reconnect process. In contrast, in 2020 the Company reconnected 31,252 customers, for a net gain of 1,333 customers in 2020. Comparing the "normal" historical net loss of 17,649 customers with the 2020 net gain of 1,333 customers implies that by the start of 2021, approximately 19,000 fewer customers were lost compared to prior years. This corroborates the adjustments developed through the regression modeling that estimates that January 2021 through March 2021 customer counts appear to be inflated by just under 20,000 customers.

Figure 10: Historical Disconnect and Reconnect Activity

	Accounts Disconnected for Non-Payment	Accounts Reconnected After Non-Payment	Net Accounts Gained (Lost)
2015	92,677	71,177	-21,500
2016	83,676	65,735	-17,941
2017	88,208	68,594	-19,614
2018	75,179	59,560	-15,619
2019	71,987	58,415	-13,572
2020	29,919	31,252	1,333
2015-2019 Average	**82,345**	**64,696**	**-17,649**
2020 vs Ave	**-52,426**	**-33,444**	**18,982**

Q. Please explain the adjustment in residential and commercial usage for January 2021 through March 2021.

A. A corresponding reduction to residential and commercial usage for January 2021 through March 2021 must be made to account for the reduction in customer counts. The usage adjustment was determined through a two-step process. First, actual January 2021 through March 2021 usage was weather normalized to remove the effects of weather. Second, the weather normalized use per customer was multiplied by the customer count reduction to determine the corresponding usage reduction. This process was conducted separately for residential and commercial customers.

Q. Please explain the weather normalization methodology used in the first step.

A. Actual usage per customer is split into base (or non-temperature sensitive ("NTS")) use and temperature-sensitive ("TS") use per customer for each month of April 2020 through March 2021, separately for the residential and commercial classes. Base use per customer is determined by usage in the low-use summer months. Monthly temperature-sensitive use per customer is determined by subtracting base use per customer from total use per customer. Monthly temperature-sensitive use per customer is adjusted by the ratio of normal to actual heating degree days ("HDD") by month to derive normal temperature-sensitive use per customer by month. The monthly normal temperature-sensitive use per customer is added to the base use per customer to arrive at the weather normalized use per customer. This value

is multiplied by the customer count by month to produce monthly weather normalized usage. All calculations are performed on a billing month basis and use billing month sales, the average number of days in the billing cycle, and billing month HDD. Residential and commercial weather normalization calculations are shown in Figures 11 and 12.

Figure 11: Residential Weather Normalization

		Actual	Actual	MCF/Customer					HDD	HDD	Normal
		Customers	MCF	Actual	NTS	TS Actual	TS Normal	Normal	Actual	Normal	MCF
2021	Jan	1,365,488	19,739,913	14.46	1.37	13.08	13.75	15.12	1044	1097	20,646,796
2021	Feb	1,368,356	21,185,419	15.48	1.22	14.26	13.59	14.81	1124	1071	20,265,075
2021	Mar	1,367,128	16,691,721	12.21	1.22	10.99	11.47	12.69	867	905	17,350,301
2020	Apr	1,357,697	10,004,116	7.37	1.21	6.15	6.54	7.76	523	556	10,531,312
2020	May	1,357,668	7,907,856	5.82	1.22	4.60	3.14	4.36	403	275	5,922,420
2020	Jun	1,356,634	3,283,557	2.42	1.27	1.15	1.00	2.27	99	86	3,077,846
2020	Jul	1,355,533	1,792,915	1.32	1.32	0.00	0.00	1.32	4	4	1,792,915
2020	Aug	1,354,210	1,593,309	1.18	1.18	0.00	0.00	1.18	0	0	1,593,309
2020	Sep	1,349,906	1,750,387	1.30	1.30	0.00	0.00	1.30	19	13	1,750,387
2020	Oct	1,350,559	3,078,370	2.28	1.24	1.04	0.81	2.05	175	137	2,773,583
2020	Nov	1,356,049	6,794,685	5.01	1.21	3.80	4.14	5.35	392	427	7,254,313
2020	Dec	1,362,455	13,819,895	10.14	1.34	8.80	9.58	10.92	758	825	14,880,018

Figure 12: Commercial Weather Normalization

		Actual Customers	Actual MCF	MCF/Customer Actual	NTS	TS Actual	TS Normal	Normal	HDD Actual	HDD Normal	Normal MCF
2021	Jan	109,741	11,744,812	107.02	18.51	88.51	93.01	111.52	1044	1097	12,237,924
2021	Feb	109,949	12,695,093	115.46	16.42	99.05	94.38	110.79	1124	1071	12,181,589
2021	Mar	109,953	9,938,012	90.38	16.42	73.97	77.21	93.63	867	905	10,294,477
2020	Apr	109,304	5,942,126	54.36	16.36	38.00	40.40	56.76	523	556	6,204,207
2020	May	109,120	4,481,422	41.07	16.44	24.63	16.80	33.25	403	275	3,627,915
2020	Jun	108,754	2,412,164	22.18	17.05	5.13	4.45	21.51	99	86	2,338,939
2020	Jul	108,494	1,830,566	16.87	16.87	0.00	0.00	16.87	4	4	1,830,566
2020	Aug	108,298	1,805,133	16.67	16.67	0.00	0.00	16.67	0	0	1,805,133
2020	Sep	107,864	1,986,583	18.42	16.84	1.58	1.08	17.92	19	13	1,932,862
2020	Oct	108,055	2,708,785	25.07	16.71	8.36	6.55	23.25	175	137	2,512,612
2020	Nov	108,753	4,645,850	42.72	16.36	26.36	28.71	45.07	392	427	4,901,772
2020	Dec	109,417	8,637,712	78.94	18.06	60.88	66.26	84.32	758	825	9,226,535

Q. Please explain the second step where the usage adjustment was determined.

A. The adjustment to weather normalized usage was determined by multiplying the customer count reduction by the associated normalized use per customer. For example, based on the analysis discussed above, January 2021 residential customer counts should be reduced by 18,752 customers. Multiplying 18,752 residential customers by the weather normalized use per residential customer for January 2021 of 15.12 MCF/customer from the residential normalization calculations above produces an adjustment to weather normalized January 2021 residential usage of 283,539 MCF. These calculations were repeated for February and March 2021 and for commercial usage, and are illustrated in Figures 13 and 14.

Figure 13: Residential Usage Adjustment

	Customer Adjustment	Weather Normalized MCF/Customer	MCF Adjustment
Jan-21	(18,752)	15.12	(283,539)
Feb-21	(19,142)	14.81	(283,489)
Mar-21	(18,602)	12.69	(236,079)

Figure 14: Commercial Usage Adjustment

	Customer Adjustment	Weather Normalized MCF/Customer	MCF Adjustment
Jan-21	(984)	111.52	(109,732)
Feb-21	(969)	110.79	(107,358)
Mar-21	(1,032)	93.63	(96,622)

Q. Please summarize the actual and revised residential and commercial customer counts and usage for January 2021 through March 2021 that exclude the effects of the Company's temporary COVID-19 customer assistance programs.

A. Figures 15 and 16 summarize the actual and adjusted customer counts and MCF for residential and commercial customers, respectively.

Figure 15: Residential Adjusted Customer Counts and Usage

	Actual Customer Count	Customer Count Adjustment	Adjusted Customer Count
Jan-21	1,365,488	(18,752)	1,346,736
Feb-21	1,368,356	(19,142)	1,349,214
Mar-21	1,367,128	(18,602)	1,348,526

	Weather Normalized MCF	MCF Adjustment	Adjusted MCF
Jan-21	20,646,796	(283,539)	20,363,258
Feb-21	20,265,075	(283,489)	19,981,586
Mar-21	17,350,301	(236,079)	17,114,222

Figure 16: Commercial Adjusted Customer Counts and Usage

	Actual Customer Count	Customer Count Adjustment	Adjusted Customer Count
Jan-21	109,741	(984)	108,757
Feb-21	109,949	(969)	108,980
Mar-21	109,953	(1,032)	108,921

	Weather Normalized MCF	MCF Adjustment	Adjusted MCF
Jan-21	12,237,924	(109,732)	12,128,192
Feb-21	12,181,589	(107,358)	12,074,230
Mar-21	10,294,477	(96,622)	10,197,854

Q. Does this complete your Prepared Direct Testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony.

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 14th day of July, 2021, upon the persons listed below.

/s/ Joseph M. Clark
Joseph M. Clark

Attorney for
COLUMBIA GAS OF OHIO, INC.

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MELISSA F. BARTOS
Vice President

Ms. Bartos is a financial and economic consultant with more than twenty years of experience in the energy industry. In the last several years, she has focused on natural gas markets issues, including conducting comprehensive market assessments for various clients considering infrastructure investments and developing detailed demand forecasts for a number of gas distribution companies. Ms. Bartos has also designed, built, and enhanced numerous financial and statistical models to support clients in asset-based transactions, energy contract negotiations, reliability studies, asset and business valuations, rate and regulatory matters, cost-of-service analysis, and risk management. Her modeling experience includes building Monte-Carlo simulation models, designing an allocated cost-of-service model, statistical modeling using SPSS, and programming using Visual Basic for Applications (VBA). Ms. Bartos has also provided expert testimony on multiple occasions regarding natural gas demand forecasting and supply planning issues, natural gas markets and marginal cost studies.

REPRESENTATIVE PROJECT EXPERIENCE

Natural Gas Market Assessments

- Reviewed and evaluated long-term natural gas supply and demand, existing natural gas pricing dynamics, and future implications associated with new natural gas infrastructure in New England, New York, and New Jersey.
- Provided an analysis of the existing Gulf Coast natural gas market, the client's natural gas pipeline competitors, changing flows, and how those factors may affect transportation values to the client going forward.
- Prepared a comprehensive study examining the costs associated with improving natural gas pipeline access from western Canada and the eastern U.S. to Atlantic Canada.
- Produced a report on the benefits associated with incremental natural gas supplies delivered to New York City.
- Prepared an independent natural gas supply and pipeline transportation route assessment associated with natural gas for the client's proposed LNG export terminal.
- Conducted a study that examined potential commercial and industrial conversions from oil-based fuels to natural gas in various east coast U.S. markets.
- Produced a report that identified growth potential in off-system stationary and mobile markets in the mid-west that could be served by compressed natural gas or liquefied natural gas.
- Performed an external audit and filed expert testimony associated with two natural gas utilities' hurdle rate/contribution in aid of construction calculations for new off main customers.

- Produced a report that identified and reviewed innovative cost model approaches that utilities and regulators are using across the U.S. that allow expansion of gas distributions systems to new communities.
- Assisted in developing a strategy to identify residential natural gas growth opportunities within the client's franchise area.
- Presented at two Northeast Gas Association conferences regarding "Regulatory Policy and Residential Main Extensions".
- Conducted a study to determine the cost of significantly reducing peak day natural gas demand for a northeast gas utility through energy efficiency, conservation and demand management measures. Project involved researching natural gas energy efficiency plans in multiple U.S. states and Canadian provinces, reviewing energy efficiency potential studies, and exploring geothermal, peak pricing and direct load control options.

Demand Forecasting

- Filed expert testimony regarding the development of demand forecast models and the evaluation of natural gas resource plans for several gas utilities.
- Provided litigation support regarding demand forecasting techniques with respect to certain natural gas pipeline and storage decisions for a mid-west gas utility.
- Evaluated demand forecasts and produced alternative demand forecasts in the context of due diligence support for several asset transactions.
- Reviewed demand forecasting practices and procedures and recommended certain changes to improve the methodology and accuracy of the forecast for a multi-state utility.
- For a mid-west gas utility, developed a natural gas demand forecast that was utilized for supply and capacity decisions.

Ratemaking and Utility Regulation

- Participated in the rate case of a large North American gas distribution company, which determined the client's five-year incentive regulation plan, including performing benchmarking and productivity analyses that were filed with the regulator.
- Developed and testified in support of several marginal cost studies filed in rate cases for several New England utilities.
- Provided comprehensive analysis, drafted testimony and provided litigation support regarding the appropriate return on equity for a New England water utility, and for proposed wind and coal electric generation facility additions for a mid-west combination utility.
- Performed a detailed analysis of the components included in the client's lost and unaccounted for gas calculation.
- Conducted multiple natural gas portfolio asset optimization analyses to evaluate performance of the client's asset manager for regulatory purposes.

- On behalf of multiple New England gas companies, participated in the 2009 Avoided Energy Supply Cost Study Group (for New England), which worked with third-party consultants to develop the marginal energy supply costs that will be avoided due to reductions in the use of electricity, natural gas, and other fuels resulting from energy efficiency programs.

PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2002 – Present)
Vice President
Assistant Vice President
Project Manager
Senior Consultant

Navigant Consulting, Inc. (1996 – 2002)
Senior Consultant

EDUCATION

University of Massachusetts at Lowell
M.S., Mathematics (Statistics), 2003

College of the Holy Cross
B.A., Mathematics and Psychology, *magna cum laude*, 1998

PROFESSIONAL ASSOCIATIONS

Member of the American Statistical Association

Member of the Northeast Energy and Commerce Association

Member of the Northeast Gas Association

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