Columbia Exhibit No.

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Annual Application) of Columbia Gas of Ohio, Inc. for an Ad-) Case No. 21-1185-GA-RDR justment to Rider IRP and Rider DSM) Rates.)

PREPARED DIRECT TESTIMONY OF **ERIC SLOWBE** ON BEHALF OF COLUMBIA GAS OF OHIO, INC.

COLUMBIA GAS OF OHIO, INC.

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Attorney for COLUMBIA GAS OF OHIO, INC.

February 25, 2022

PREPARED DIRECT TESTIMONY OF ERIC SLOWBE

- 1 Q. Please state your name and business address. 2 A. My name is Eric Slowbe and my business address is 290 W. Nationwide 3 Blvd., Columbus, Ohio 43215. 4 5 Q. By whom are you employed? 6 I am employed by Columbia Gas of Ohio, Inc. ("Columbia"). My current A. 7 title is Principal Engineer. 8 9 Q. Please summarize your educational background and experience. 10 A. I have a Bachelor of Science degree in Industrial Engineering from the Uni-11 versity of Toledo, in Toledo, Ohio, a Professional Engineering Certification 12 from the State of Ohio, a Masters of Business Administration from Southern 13 New Hampshire University, and a Project Management Professional Certi-14 fication from the Project Management Institute. In 2008, I began my career 15 with Columbia as a Field Engineer. As a Field Engineer, I was responsible 16 for tasks including design and management of gas pipe construction pro-17 jects, winter operations planning, and emergency response support in ad-18 dition to providing technical assistance for various company activities. In 19 2014, I accepted a position as a Principal Engineer with responsibilities for 20 Ohio and Kentucky. 21
- 22 Q. What are your responsibilities as Principal Engineer?
- A. As Principal Engineer my responsibilities include assisting in collection and analysis of data for regulatory filings, managing engineering training materials and learning requirements, internal process evaluation standardization and improvement, and providing a variety of technical support for various teams and initiatives within NiSource/Columbia. I facilitate updates and changes to company policies and procedures, and assist with quality and accuracy evaluations related to engineering activities.
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- 31 Q. What is the purpose of your testimony?
- A. The purpose of my testimony is to explain the management, engineering, and
 construction practices of Columbia as they relate to the various components
 of Rider IRP, included in this filing, for the 2021 calendar year. I will also discuss Columbia's performance with respect to its accelerated main replacement program and hazardous service line replacement program.

- 1 Q. Please summarize Rider IRP and its components included in this filing.
- A. Rider IRP is an infrastructure tracker that captures cumulative plant investment over a specified period of time and provides for a return on and the
 return of all program costs. The program components that make up Columbia's IRP are: (1) the Accelerated Main Replacement Program ("AMRP"); and
 (2) the replacement of hazardous service lines; and (3) the Automated Meter
 Reading Device ("AMRD") program.
- 8 9 **Q**.

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Please describe the AMRP and replacement of hazardous service line programs.

- A. Columbia's AMRP targets certain types of main for replacement over the
 course of approximately 25 years. The types of gas main included in the
 AMRP are unprotected bare steel, unprotected coated steel, wrought iron,
 and cast iron. These types of main ("Priority Pipe" or "Priority Main") typically have a greater probability to leak due to their material type, protection,
 age, and other characteristics. Also included in the AMRP is the replacement
 of all metallic service lines and associated appurtenances.
- 19 Columbia also has responsibility of all maintenance, repair, and replacement 20 of customer-owned service lines that have been determined by Columbia to 21 present an existing or probable hazard to persons or property or require a 22 scheduled repair or replacement based on severity or location.
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Q. Please summarize the AMRP and hazardous service line performance portions of Rider IRP for 2021.

A. For the 2021 AMRP filing, Columbia has included costs for projects associated
with the retirement of Priority Pipe totaling approximately \$203 million. The
total footage abandoned or retired from service for each type of main is as
follows:

1		Bare Steel:	816,984 feet
1 2		Iron/Other:	19,927 feet
2		Pre-1955 Unprotected Coated Steel:	0 feet
4		Pre-1955 Ineffectively Coated Steel:	196,528 feet
5		Post-1954 Coated Steel:	68,715 feet
6		Plastic:	188,664 feet
7		Trastic.	100,004 1001
8		In 2021, Columbia replaced 5,447 hazardous customer service	lines for a total
9		cost of approximately \$29.9 million.	lines for a total
10		cost of upproximately \$25.5 minion.	
11	Q.	Has Columbia included the costs to replace segments of pla	stic and coated
12	χ.	steel mains in this filing?	
13	A.	Columbia has included the costs of retiring these portions of no	on-priority pipe
14		main in conjunction with its infrastructure replacement p	
15		tracker. As part of the Joint Stipulation and Recommendation	,
16		5515-GA-ALT approved by the Commission in its Opinion ar	
17		November 26, 2012, Columbia clarified the scope of the AMR	
18		terspersed non-priority main, first generation plastic main, ar	
19		coated steel main. Columbia has also added Pre-1955 Ineffe	5
20		Steel to accurately identify the type of pipe replaced in that vir	
21			0
22		The Opinion and Order issued in 11-5515-GA-ALT provided	for recovery of
23		investment related to interspersed sections of nonpriority	pipe contained
24		within the bounds of priority pipe replacement projects where	e it is more eco-
25		nomical to replace such pipe based on the pipe diameter and	length of main.
26		These replacement metrics are set forth in the Commission's O	rder dated No-
27		vember 26, 2012.	
28			
29		The Opinion and Order further allowed for the inclusion and	recovery of in-
30		vestment related to the replacement of first generation plastic	pipe or Aldyl-
31		A plastic pipe when such pipe is associated with priority pipe	in replacement
32		projects not to exceed 5% of the total pipe replaced. For 2021,	Columbia's re-
33		tirement of first generation non-interspersed plastic pipe ins	-
34		1982 associated with an AMRP totaled 47,629 feet of pipe, wh	nich was 3.69%
35		of the total retirement footage.	
36			
37		Columbia's AMRP was also clarified to expressly include ineff	2
38		steel pipe installed before 1955 which was considered ineff	•
39		without further testing. Columbia also tested segments of po	
40		steel pipe that were retired with replacement projects. Segmen	nts ot post-1954

coated steel pipe that were determined to be ineffectively coated were included in the IRP. Columbia retired a total of 38,777 feet of post-1954 coated steel pipe that was found to be ineffectively coated.

5 Q. The Joint Stipulation and Recommendation in Case No. 11-5515-GA-ALT 6 also included restrictions on certain types of projects related to system bet-7 terment and municipal improvement. What has Columbia done to ensure 8 compliance with those requirements?

- 9 A. Columbia has put processes in place to ensure that the cost of projects such as 10 system betterment designed for future growth and municipal improvement 11 projects where Columbia was required to move its facilities were not included 12 in the AMRP filing if they did not meet the requirements contained within the 13 Joint Stipulation and Recommendation approved by the Commission in Case 14 No. 11-5515-GA-ALT. One such process is the monthly review of all active job 15 orders through a Pre-Closeout Report. With this report, a list of all active job 16 orders are provided monthly to Columbia's field engineering leaders to re-17 view with their respective engineering team members. Key information that 18 is provided includes the estimated footage of priority pipe that is expected to 19 be retired, the project accounting code (indicates whether the job order is an 20 AMRP project), and whether the project accounting code was entered cor-21 rectly. This monthly review helps to ensure that AMRP related job orders are 22 properly entered into our Work Management System. Additionally, Colum-23 bia has a comprehensive training module in its learning management system 24 for new and existing engineering employees that provides clear instructions 25 on what is included in the AMRP, and how to properly code projects for in-26 clusion in its annual filing. In 2021, the Columbia Engineering Department 27 reviewed and updated the AMRP projects included and excluded in the 28 monthly reviews. These efforts help to reinforce the importance Columbia 29 places on this program and helps to ensure compliance to the Joint Stipula-30 tion.
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32 Q. How did Columbia determine which mains were to be replaced as part of 33 its AMRP in 2021?

A. In 2021, Columbia utilized software called Optimain DS[™] to help evaluate
and rank pipe segments system-wide against a range of environmental conditions (e.g. population density, building class, surface cover type, etc.), risk
factors (pipe segment leak history, pipe condition, pitting depth, depth of
cover, etc.) and economic factors. Generally, we identified, ranked and selected projects based on the level of relative risk score that would be removed
from the system per every thousand feet of pipe that would be abandoned

- with the project. We also considered the level of relative risk score that would 1 2 be removed from the system per every \$100,000 dollars of capital spent. This 3 evaluation and risk ranking of pipe segments was then reviewed by the engineering and operations departments to assess whether that data was con-4 5 sistent with what has been observed in the field. Additionally, Columbia 6 worked collaboratively with local and state governments in areas where pub-7 lic improvement work was to occur. Columbia reviewed plans and identified 8 areas of Priority Pipe within the scope of pending public improvement work. 9 Columbia used both sets of information listed above to help determine which 10 sections of main were the best candidates to select for replacement.
- 11

Q. Please describe Columbia's process for determining the resources to be used in conjunction with the AMRP projects.

- A. The majority of all Columbia's capital work is performed by contractors under "blanket" contracts. This approach allows Columbia to maintain highly skilled contract resources and encourages these contractors to expand their businesses in Ohio. Local Columbia employees may perform work on some smaller projects when they are available. Columbia evaluates each project on a variety of criteria to determine who will perform the work.
- 20

21Q.What percentage of contractors working on AMRP projects in 2021 con-22sisted of Ohio labor?

- As part of the Stipulation in Case No. 08-0072-GA-AIR, et al., approved by the 23 A. 24 Commission on December 3, 2008, Columbia agreed to encourage its AMRP 25 contractors to use their best efforts to retain Ohio labor to perform AMRP re-26 lated services. In the Joint Stipulation and Recommendation in Case No. 09-27 0006-GA-UNC, filed on June 2, 2009, and approved by the Commission on 28 June 24, 2009, Columbia agreed to continue to encourage its AMRP contrac-29 tors to use Ohio labor, and to report on Ohio labor participation in the AMRP 30 program. Columbia has added language to its bid packages stating a prefer-31 ence that Ohio labor be used whenever possible as long as the price and qual-32 ity of work is not negatively impacted.
- 33

34 Q. Do contractors typically replace Columbia's hazardous customer service 35 lines?

A. Contractors do replace some hazardous service lines in a few locations, but
the majority of hazardous service lines are replaced by local Columbia employees.

- 1 Q. Did the various components included in this filing produce any other sig-2 nificant benefits for customers in 2021?
- A. Yes. Customer safety has been improved significantly due to the replacement
 of more than 5,447 hazardous service lines. With the retirement of 836,911 feet
 of Priority Pipe, Columbia was able to eliminate the chance of water entering
 these lines and freezing meters off in the winter. Additionally, Columbia was
 able to retire distribution mains where it repeatedly has had to go in and dig
 up to repair the mains.

10 **Q**. What are Columbia's construction plans for 2022?

11 A. Columbia expects to spend approximately \$279.8 million on the various com-12 ponents of Rider IRP in 2022. Columbia currently estimates it will spend ap-13 proximately \$30.0 million on hazardous service lines, and \$249.8 million on 14 replacing infrastructure. Priority Pipe projects will be constructed throughout 15 the year. Many of these projects have either not yet been identified or involve 16 third party coordination the schedules for which cannot be confirmed at this 17 time. These projects will address existing hazards and/or eliminate risky pipe 18 in conjunction with public works projects. A current listing of Columbia's 19 largest planned infrastructure projects is shown below.

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Project Name	City	Total Project
		Cost
Pearl Street AMRP	Martins Ferry	\$6,692,187
Mt. Vernon Phase 4 AMRP	Newark	\$4,873,608
Oregon Avenue AMRP	Steubenville	\$4,022,953
Water Street AMRP	Olmsted Falls	\$3,950,412
Smiley Oak AMRP	Shelby	\$3,924,387
Overlook Drive AMRP	Alliance	\$3,536,524
Wolfhurst AMRP	Bridgeport	\$3,482,657
Boston Avenue AMRP	Elyria	\$3,362,006
Rubsam AMRP	Springfield	\$3,272,821
Main Street AMRP	Zanesville	\$3,265,842
Main & Yates AMRP	Findlay	\$3,252,681
Elsie AMRP	Toledo	\$3,246,376
Doren & Nashoba AMRP	Hilltop	\$3,181,731
Madison & Maple AMRP	Salem	\$3,173,974
Park Avenue Phase 1 AMRP	Fremont	\$3,154,592

Project Name	City	Total Project Cost
Moon Valley AMRP	Wintersville	\$3,111,839
Eakin & Roys AMRP	Hilltop	\$3,109,849
25th Street	Portsmouth	\$3,095,615
Pottery Addition AMRP	Steubenville	\$3,063,991
Drummond AMRP	Toledo	\$2,938,438
Bloomdale AMRP	Bloomdale	\$2,911,549
Lexington & Shoemaker AMRP	Columbus	\$2,862,763
Laskey AMRP	Toledo	\$2,786,175
Seigman & Yearling AMRP	Whitehall	\$2,766,192
Coryville AMRP	Chesapeake	\$2,748,140
Thoman AMRP	Toledo	\$2,725,166
Mt. Vernon Shields Phase 1 AMRP	Newark	\$2,700,387
Decatur Street AMRP	Vermillion	\$2,661,500
Back Street AMRP	Nelsonville	\$2,620,866
Electric Avenue Phase 2 AMRP	Ashland	\$2,595,480
Fairlawn Avenue AMRP	Elyria	\$2,571,251
Sycamore AMRP	Sycamore	\$2,476,946
High & 3rd AMRP	Short North	\$2,439,646
High Street AMRP	Chillicothe	\$2,431,353
Hamlet and Cedar AMRP	Short North	\$2,431,113
Glover Street	Portsmouth	\$2,407,644
Lake AMRP	Toledo	\$2,402,810
Wyanoke AMRP	Ironton	\$2,386,347
Eden AMRP	Springfield	\$2,380,016
New England & Oxford AMRP	Worthington	\$2,312,959
Sandusky North AMRP	Sandusky	\$2,306,186
Dartmouth & Nelson AMRP	Columbus	\$2,296,327
Maple Avenue Phase 5 AMRP	Newark	\$2,292,732
Warren & Olive AMRP	Hilltop	\$2,284,205
Washington & Woodrow AMRP	Columbus	\$2,201,475
Brownlee & Eastmoor AMRP	Columbus	\$2,151,856
Elmwood AMRP	Genoa	\$2,117,142
Chippewa Lake Phase 2 AMRP	Chippewa Lake	\$2,074,643

Project Name	City	Total Project Cost
McConnel AMRP	Findlay	\$2,011,479
Spring Grove AMRP	Toledo	\$2,002,231
Village & Ingham AMRP	Clintonville	\$1,998,586
Waldo AMRP	Waldo	\$1,986,973
Eagle Avenue AMRP	Lorain	\$1,974,983
Lagonda AMRP	Springfield	\$1,884,697
Mount Vernon Spruce & Newark AMRP	Mt Vernon	\$1,877,695
Warren Street AMRP	Sandusky	\$1,840,249
Long & Parkwood	Columbus	\$1,835,262
Mechanic AMRP	Mt Vernon	\$1,786,054
Virginia & Thornwood AMRP	Grandview	\$1,783,299
Sunset Boulevard AMRP	Mansfield	\$1,768,256
Madison Street AMRP	Port Clinton	\$1,755,760
Powhatan Avenue AMRP	Chesapeake	\$1,755,289
City Park & Sycamore AMRP	German Village	\$1,751,119
Hayesville Phase 2 AMRP	Hayesville	\$1,750,527
College & Astor AMRP	Columbus	\$1,740,006
Columbia Road AMRP	Bay Village	\$1,735,685
Winnett AMRP	Toledo	\$1,727,664
Rugg Ave Phase 3 AMRP	Newark	\$1,725,007
Medick & Tucker AMRP	Worthington	\$1,715,689
Dewey Avenue AMRP	Elyria	\$1,686,162
Densmore Avenue Phase 2 AMRP	East Liverpool	\$1,683,990
Ashley Phase 2 AMRP	Ashley	\$1,675,641
Chevy Chase AMRP	Mansfield	\$1,665,927
Park Boulevard Phase 1 AMRP	East Liverpool	\$1,633,110
Cherokee AMRP	Springfield	\$1,632,119
Minerva East AMRP	MInerva	\$1,629,713
High & Harrison AMRP	Sunbury	\$1,615,116
Ariel AMRP	Toledo	\$1,553,645
Walnut Street AMRP	Leetonia	\$1,539,595
Stanwix AMRP	Toledo	\$1,511,895

Project Name	City	Total Project Cost
Granville North AMRP	Granville	\$1,500,331
York Road AMRP	North Royalton	\$1,493,250
Sandusky West AMRP	Sandusky	\$1,412,329
Lester Road AMRP	Valley City	\$1,399,692
Webster & Bradley AMRP	Bay Village	\$1,390,808
Mt Zion Road AMRP	Jackson	\$1,357,822
18th and Franklin AMRP	Columbus	\$1,356,118
Tropic Street AMRP	Jackson	\$1,340,405
Rossway AMRP	Rossford	\$1,323,336
10th Street AMRP	Ironton	\$1,305,861
Lane Street AMRP	Coal Grove	\$1,298,082
Rushville AMRP	Rushville	\$1,295,454
Bergholz Phase 3 AMRP	Bergholz	\$1,286,990
Hilo & Oxley AMRP	Grandview	\$1,248,666
Franke Road AMRP	Middleburg Heights	\$1,223,288
Dresden Avenue Phase 5 AMRP	East Liverpool	\$1,217,843
Rocky River AMRP	Berea	\$1,197,477
Electric Avenue Phase 1 AMRP	Ashland	\$1,166,370
Pearl Street AMRP	Berea	\$1,159,230
Rhode Pipe AMRP	Sandusky	\$1,136,425
Kenwood Street AMRP	South Amherst	\$1,130,068
Ashley Phase 1 AMRP	Ashley	\$1,070,981
High Street AMRP	Clintonville	\$1,057,733
Upper Chelsea & Waltham AMRP	Upper Arlington	\$1,043,842
Sophia Street AMRP	Maumee	\$993,010
Hayesville Phase 1 AMRP	Hayesville	\$990,369
Elmwood & Tremont AMRP	Upper Arlington	\$982,919
River Road AMRP	Monroeville	\$969,535
Clark Street AMRP	Toledo	\$854,165
Shipman Street AMRP	Shawnee	\$853,209
Ridgeway & Nelson AMRP	Columbus	\$810,840
16th Street AMRP	Sebring	\$806,229
Lattasburg AMRP	West Salem	\$765,876

Project Name	City	Total Project Cost
Bagley Road AMRP	Olmsted Falls	\$741,672
Commerical Avenue AMRP	Mingo	\$670,758
Hawthorne AMRP	Springfield	\$665,278
River Road AMRP	Olmsted Falls	\$623,613
Diana Drive AMRP	Brunswick	\$595,250
New Lexington North AMRP	New Lexington	\$547,953
Johnson Road AMRP	Sebring	\$532,476
Colburn Street AMRP	Toledo	\$532,472

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Q. Does this complete your Prepared Direct Testimony?

3 A. Yes. However, I reserve my right to supplement this 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 25th day of February, 2022 upon the parties listed below.

<u>/s/ John R. Ryan</u>

John R. Ryan

Attorney for **COLUMBIA GAS OF OHIO, INC.**

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