

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Annual Application )  
of Columbia Gas of Ohio, Inc. for an ) Case No. 18-1701-GA-RDR  
Adjustment to Rider IRP and Rider )  
DSM Rates. )

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**PREPARED DIRECT TESTIMONY  
OF ANDREW S. METZ  
ON BEHALF OF COLUMBIA GAS OF OHIO, INC.**

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**COLUMBIA GAS OF OHIO, INC.**

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February 28, 2019

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

**PREPARED DIRECT TESTIMONY  
OF ANDREW S. METZ**

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1   **Q.    Please state your name and business address.**

2    A.    Andrew S. Metz, 290 West Nationwide Boulevard, Columbus, Ohio 43215.

3  
4   **Q.    By who are you employed?**

5    A.    I am employed by Columbia Gas of Ohio, Inc. ("Columbia").

6  
7   **Q.    Will you please state briefly your educational background and experi-**  
8       **ence?**

9    A.    I graduated from Virginia Polytechnic Institute and State University with  
10       a BS in Business Economics in 2008 and a masters in Financial Economics  
11       from Youngstown State University in 2010. I began my career with Co-  
12       lumbia in 2012 in the energy efficiency department where I was a Data  
13       and Performance Metrics Analyst. In April of 2017, I was promoted to my  
14       current position of Financial and Analytics Lead.

15  
16   **Q.    What are your job responsibilities as Financial and Analytics Lead?**

17    A.    I am responsible for validating Columbia's energy efficiency program data  
18       and invoices, strategic planning, data analysis and reporting, as well as  
19       managing Columbia's energy efficiency evaluation contractor. Other re-  
20       sponsibilities include the preparation and/or support of exhibits, proposed  
21       tariff changes, and testimony filed by Columbia in support of the Demand  
22       Side Management ("DSM") rider proposed by Columbia in this case.

23  
24   **Q.    Have you previously testified before this Commission?**

25    A.    Yes. I provided written testimony last year in Case No. 17-2374-GA-RDR.

26  
27   **Q.    What is the purpose of your testimony?**

28    A.    The purpose of my testimony is to support the reasonableness of Colum-  
29       bia's request for the proposed rate adjustments in Rider DSM. I provide  
30       detailed explanation of the DSM programs and the schedules filed by Co-  
31       lumbia on February 28, 2019, in support of the proposed adjustments.

32  
33   **Q.    What schedules are you sponsoring in this proceeding?**

34    A.    Following is a list and brief description of the schedules I am sponsoring  
35       in this proceeding, which are applicable to Rider DSM:

36

1

Schedule/Exhibit	Description
Schedule DSM-1	DSM Revenue Requirement Calculation
Schedule DSM-2	Detail of Deferred DSM Expenditures by Month
Schedule DSM-3	Detail of DSM Recoveries by Month
Schedule DSM-4	Computation of DSM Carrying Costs
Schedule DSM-5	Shared Savings Incentive
Schedule DSM-6	Computation of DSM Rate per Mcf

2

3 **EXPLANATION OF DSM SCHEDULES**

4

5 **Q. Are you familiar with Columbia's Application to Establish Demand**  
6 **Side Management Programs filed on July 1, 2008 in Case No. 08-0833-**  
7 **GA-UNC, and approved by the Commission on July 23, 2008?**

8 A. Yes. Among other things, this Application defined the DSM program  
9 portfolio, program benefits, funding limits, customer base, program eval-  
10 uation plan, and program timeframes.

11

12 **Q. Are you familiar with Columbia's Application filed in Case No. 08-0072-**  
13 **GA-AIR, et al., on March 3, 2008, and approved by the Commission on**  
14 **December 3, 2008?**

15 A. Yes. Columbia's Application in these dockets requested authority to defer  
16 expenses incurred in the development and implementation of the DSM  
17 Program. Also, as part of its Alternative Regulation Plan filed in those  
18 dockets, Columbia requested approval of the proposed Rider DSM to re-  
19 cover DSM costs, including those deferred expenses incurred in the devel-  
20 opment and implementation of the DSM programs.

21

22 **Q. Are you familiar with Columbia's Application filed in Case No. 11-5028-**  
23 **GA-UNC, on September 9, 2011, and approved by Commission Order**  
24 **dated December 14, 2011?**

25 A. Yes. In that case, Columbia's Application sought continuation, expansion,  
26 and approval of various DSM programs through December 31, 2016. In its  
27 Order, the Commission authorized Columbia to implement all of the pro-  
28 posed DSM programs.

29

30 **Q. Are you familiar with Columbia's Application filed in Case No. 16-1309-**  
31 **GA-UNC, on June 10, 2016, and approved by Commission Order dated**  
32 **December 21, 2016?**

1 Yes. In that case, Columbia's Application sought to continue its demand  
2 side management Program and to continue the recovery and accounting  
3 previously approved in Case Nos. 08-0072-GA-AIR, et al., and 11-5028-  
4 GA-UNC, et al., for an additional six years through December 31, 2022.  
5 This application was approved by the Commission's December 21, 2016  
6 Opinion and Order in that proceeding.  
7

8 **Q. Please describe Rider DSM.**

9 A. Rider DSM authorizes Columbia to recover the costs of implementing a  
10 comprehensive, ratepayer funded, cost-effective energy efficiency pro-  
11 gram made available to all residential customers during calendar years  
12 2009-2011. This time period was extended in Case Nos. 11-5028-GA-UNC,  
13 et al., for program costs incurred in calendar years 2012-2016. The time pe-  
14 riod was extended again in Case Nos. 16-1309-GA-UNC, et al., for pro-  
15 gram costs incurred in calendar years 2017-2022.  
16

17 Rider DSM will be determined annually based on the actual cost of the  
18 program for the previous calendar year with rates to become effective the  
19 following May. The procedure for the filing of Rider DSM adjustments is  
20 identical to the filing procedure applicable to the Rider IRP, as set forth in  
21 the Opinion and Order from Case No. 16-1309-GA-UNC, et al.  
22

23 **Q. What are the customer benefits of the DSM programs?**

24 A. The primary customer benefits of the DSM programs are lower natural  
25 gas usage and bills as a result of the implementation of energy efficiency  
26 measures. Other customer benefits include improved safety and reduced  
27 greenhouse gas emissions.  
28

29 **Q. Please provide a brief description of each of the DSM programs for  
30 which Columbia has incurred costs during 2018.**

31 A. Columbia incurred costs for most of its DSM programs during 2018.  
32

33 Columbia's income eligible customer home weatherization program,  
34 WarmChoice®, served 2,058 households in 2018 through a network of five  
35 community-based providers and their subcontractors. Customers receive a  
36 diagnostic energy and safety inspection and installation of attic, wall,  
37 floor, duct and pipe insulation, air leakage sealing, and replacement of de-  
38 fective natural gas fueled water and/or space heating appliances, when  
39 needed. All customers who received services through WarmChoice® re-

ceived a quality assurance inspection by their WarmChoice® provider after all heating work was completed, and again after all weatherization work was completed. Additionally, six percent of homes that received WarmChoice® services in 2018 had a quality assurance inspection completed by Columbia staff which included a complete inspection of all heating and weatherization work completed at the home.

The Home Energy Audit and Rebates program provides low-cost energy audits and assessments, smart or programmable thermostats and high-performance, water heater pipe insulation, energy-efficient showerheads and faucet aerators installed during the energy audit or assessment (if needed), and rebates for high-efficiency gas furnaces and boilers, duct sealing and air sealing, and attic and wall insulation targeted to customers with higher than average natural gas usage. CLEAResult is Columbia's implementation contractor for this program. CLEAResult has on-staff and independent energy auditors located strategically throughout Columbia's service territory to perform the residential customer energy audits and assessments, and install the smart or programmable thermostat, energy-efficient showerheads, water heater pipe insulation, and faucet aerators at the time of the energy audit or assessment, if needed. CLEAResult also recruits, manages, and trains the HVAC and insulation contractor network, processes rebates, maintains a database of customers served and transactions processed, and performs quality assurance inspections of completed work. CLEAResult performed energy audits for 3,262 customers, energy assessments for 1,309 customers, and installed 1,243 programmable thermostats, 687 smart thermostats, 2,119 showerheads, 1,238 water heater pipe insulation, and 2,113 faucet aerators.

Customers completing work in the Home Energy Audit and Rebates program in 2018 totaled 1,570, although energy audits and assessments that were completed late in the year will result in work being completed in 2019. The following rebates were paid to customers in 2018: 1,406 air sealing; 1,367 attic insulation; 838 wall insulation; 41 duct sealing; and, 77 high efficiency furnaces. The program received the United States Environmental Protection Agency ENERGY STAR® Sustained Excellence Partner of the Year award in 2018.

Columbia contracted with ICF Resources, LLC ("ICF") in 2018 to implement the EfficiencyCrafted<sup>SM</sup> Homes program. This program provides in-

centives to builders to construct homes to a higher energy efficiency standard than Ohio's building energy code. ICF recruited and trained home energy raters and homebuilders to participate in the program. Columbia also offered the program in counties that are not shared with AEP. Program staff performed outreach to recruit and enroll new homebuilders and home energy rating companies. During 2018, sixty-two homebuilders and thirteen home energy rating companies submitted or received rebates, representing a mix of both returning and newly recruited participants. In 2018, 2,695 homes with an average Home Energy Rating System ("HERS") score of 61 were built to program standards (435 were ENERGY STAR® Certified) and received incentives. During 2018, 4,400 homes enrolled in the program including the 2,695 completed homes. This program received the United States Environmental Protection Agency ENERGY STAR® Sustained Excellence Partner of the Year award in 2018 and a 2018 ENERGY STAR® Certified Homes Market Leader Award.

The Simple Energy Solutions program provides rebates to customers who purchase smart and programmable thermostats; high-performance, energy-efficient showerheads; and/or energy-efficient faucet aerators. Customers may purchase eligible products from Columbia's e-store, operated by Energy Federation, Inc. through June of 2018 and Simple Energy, Inc. beginning in June 2018, and have the rebates applied automatically to the purchase price. In 2018 Columbia contracted with CLEAResult to partner with AEP to install showerheads and aerators in multifamily buildings that have natural gas water heating. Customers also may purchase products at a hardware or home improvement store and mail in a rebate form with the UPC and receipt to receive their rebate by mail. Columbia also partnered with Nest Labs and ecobee to provide several promotions throughout the year on smart thermostats. These promotions included additional rebates from the manufacturer on top of the Columbia instant rebate. Customers obtained 919 programmable thermostats, 11,759 smart thermostats, 2,357 energy-efficient showerheads and 3,861 energy-efficient faucet aerators through the program in 2018. The program received the United States Environmental Protection Agency ENERGY STAR® Sustained Excellence Partner of the Year award in 2018.

Columbia worked with the Ohio Energy Project ("OEP") in 2018 to operate the Student Energy Efficiency Education program, known as "e<sup>3</sup> smart". OEP provided program orientation to schoolteachers throughout

1 Columbia's service territory to offer a curriculum on energy efficiency to  
2 students in grades 4 to 12. Students received a kit of energy efficiency ma-  
3 terials, including an energy-efficient showerhead, faucet and bathroom  
4 aerator, and weather stripping, to install in their homes as part of the  
5 course curriculum to help lower their home energy usage. During 2018,  
6 21,075 students were educated through the program.

7  
8 Columbia continued its contract with CLEAResult to implement the  
9 Appliance Rebates program. This program provides instant rebates to cus-  
10 tomers when they have an ENERGY STAR® certified, high efficiency natu-  
11 ral gas furnace, boiler, or water heater installed by a participating contrac-  
12 tor. In 2018, 6,009 instant rebates were provided to customers who in-  
13 stalled high efficiency heating systems and 302 water heaters were re-  
14 placed through the program. This program received the United States En-  
15 vironmental Protection Agency ENERGY STAR® Sustained Excellence  
16 Partner of the Year award in 2018 for Program Delivery.

17  
18 Columbia continued its contract with Oracle in 2018 to implement the  
19 Home Energy (Efficiency) Reports program. The Home Energy (Efficien-  
20 cy) Report is an engaging, user-friendly customer experience tool that  
21 anonymously compares customers' energy usage to that of their neighbors  
22 of similar size homes and demographics, tapping into the behavioral sci-  
23 ence insight that social pressure is a driving factor in motivating behavior-  
24 al change around energy usage. The program provides customers with  
25 their energy usage information, a comparison of their usage with similar  
26 homes, and energy saving tips to help them take actions to reduce their  
27 natural gas usage. The program provided reports to approximately  
28 511,000 randomly selected customers in 2018.

29  
30 The Innovative Energy Solutions program provides funding for energy  
31 audits; rebates for energy efficiency improvements; funding for building  
32 commissioning; research and demonstration projects; and evaluation,  
33 measurement and verification projects for commercial and industrial  
34 buildings, including those owned by not-for-profits and religious institu-  
35 tions. In 2018, Columbia contracted with CLEAResult to provide imple-  
36 mentation services for the program. Nineteen energy audits were funded  
37 in 2018, and rebates were provided for one hundred and seventy nine en-  
38 ergy efficiency improvement measures. We anticipate that some of the

1 remaining customers that had energy audits funded in 2018 will apply for  
2 rebates in 2019.

3  
4 In 2018, Columbia contracted with CLEAResult to operate its Energy  
5 Design Solutions program. The Energy Design Solutions program, brand-  
6 ed the Small Commercial Construction program, provides education and  
7 training to building industry professionals and owners on the benefits of  
8 building energy efficient small buildings. During 2018, the program pro-  
9 vided incentives for one hundred and twelve energy efficiency measures  
10 through the program.

11  
12 During 2018, Columbia launched a tool in partnership with JadeTrack Inc.  
13 for commercial and industrial buildings to track energy consumption  
14 over time and compare energy consumption of their building with that of  
15 similar building types to identify energy saving opportunities. 1 business  
16 used the tool for 3 buildings as of December 31, 2018. Columbia worked  
17 with the Ohio Hospital Association to provide monthly natural gas usage  
18 data to enable the benchmarking of its members' hospital buildings.

19  
20 Finally, in 2018 Columbia continued to offer its Home Energy Checkup  
21 program, a simple, easy-to-use on-line energy audit for customers who  
22 want to determine how efficient their homes are without an energy audi-  
23 tor visiting their home. The on-line energy audit provides information on  
24 low-cost actions as well as DSM programs that are appropriate for cus-  
25 tomers to participate in. During 2018, 6,987 households completed the  
26 Home Energy Checkup.

27  
28 **Q. What are the key DSM programs on which Columbia focused its**  
29 **program ramp-up and implementation efforts in 2018?**

30 **A.** As a result of the competitive bidding process, Columbia selected a new  
31 implementation contractor for its Simple Energy Solutions program. Co-  
32 lumbia also launched the EPA Portfolio Manager Program. The Home En-  
33 ergy Reports program was re-bid in 2018 and the bidding process contin-  
34 ues into 2019. Columbia was a finalist for Best in Data Insight at the  
35 PRWEEK Awards in 2018. Noteworthy program awards include the 2018  
36 ENERGY STAR® Certified Homes Market Leader Award, 2018 EPA Part-  
37 ner of the Year - Sustained Excellence in Energy Efficiency Program Deliv-  
38 ery award, MarCom Platinum award in Video/Audit in the Television  
39 promotion category, WarmChoice® was recognized as an ACEE Exempla-



1 ry program and Columbia won a Diamond SABRE award in the Meas-  
2 urement and Evaluation category.

3

4 **Q. How do actual DSM costs to date compare to the DSM Action Plan?**

5 A. Columbia invested approximately \$22.1 million in its DSM programs in  
6 2018 versus the \$25.7 million in the DSM Action Plan budget.

7

8 **Q. What are Columbia's plans for the DSM funds not invested in 2018?**

9 A. Columbia will carry forward un-invested DSM funding from 2018 for  
10 possible use in future program years.

11

12 **Q. How are the schedules included in Columbia's November 28, 2018**  
13 **Notice of Intent different from the updated schedules filed in this pro-**  
14 **ceeding on February 28, 2019?**

15 A. The schedules included in Columbia's Notice of Intent contained nine  
16 months actual and three months estimated calendar year 2018 data. The  
17 schedules filed February 28, 2019 contain twelve months of actual calen-  
18 dar year 2018 data.

19

20 **Q. Does your testimony support the estimated data?**

21 A. No. My testimony supports the actual data filed in this proceeding on  
22 February 28, 2019 because the actual data is what supports the Rider DSM  
23 rate calculated on Schedule DSM-6 that will ultimately be billed to cus-  
24 tomers.

25

26 **Q. What types of DSM expenses are deferred?**

27 A. Expenses incurred in the development, implementation, and administra-  
28 tion of the comprehensive energy efficiency programs are deferred using  
29 actual costs as incurred. In addition, carrying costs were deferred as actual  
30 costs and calculated using Columbia's actual weighted cost of debt rate.  
31 The Commission Orders in Case Nos. 08-0833-GA-UNC, 11-5028-GA-  
32 UNC, and 16-1309-GA-UNC authorize the inclusion of carrying costs.

33

34 **Q. What is included in the DSM revenue requirement?**

35 A. Deferred expenses incurred through December 31, 2018 have been  
36 included in the DSM revenue requirement.

37

38 **Q. How is the DSM revenue requirement allocated to Columbia's customer**  
39 **base?**

1 A. Pursuant to the Commission's Order in Case No. 08-0833-GA-UNC, the  
2 DSM program costs will be recovered from those customer classes primar-  
3 ily eligible to participate – Small General Service customers. The total rev-  
4 enue requirement calculated on Schedule DSM-1 is divided by the project-  
5 ed annual throughput of Small General Service customers for the twelve  
6 months rates will be in effect and the resulting rate will be billed volumet-  
7 rically.

8  
9 **Q. What is the basis for including all of the items described in the para-**  
10 **graphs above in the development of the DSM revenue requirement?**

11 A. Each item included in the revenue requirement is a reasonable, necessary,  
12 business-related expense directly resulting from the development, admin-  
13 istration, and implementation of the DSM program.

14  
15 **Q. What is the source for the actual data shown on these schedules?**

16 A. Generally, the information came from either the General Ledger or the  
17 supporting sub-ledgers of Columbia. When data came from another  
18 source, it was indicated on the appropriate schedule or elsewhere in this  
19 testimony.

20  
21 **Q. Please describe the shared savings mechanism approved in Case 16-**  
22 **1309-GA-UNC.**

23 A. Columbia's shared savings are computed on the difference between the  
24 net present value of program lifetime energy savings and the program  
25 costs calculated from the Utility Cost Test. The recovery of the shared sav-  
26 ings incentive, grossed up for taxes, is based on the following tiered levels  
27 of program achievement:  
28

Percent of Mcf Savings Targets Minimum	Percent of Mcf Savings Targets Maximum	Corresponding Shared Savings Percentage
100%	< 105%	5%
≥ 105%	< 110%	6%
≥ 110%	< 115%	7%
≥ 115%	< 120%	8%
≥ 120%	< 125%	9%
≥ 125%		10%

29  
30 **Q. Please describe the process used to track and verify shared savings.**

1 A. Columbia developed a mechanism to track and calculate its shared  
2 savings incentive as approved in Case Nos. 11-5028-GA-UNC, et al., as  
3 continued and modified in Case Nos. 16-1309-GA-UNC, et al. The mecha-  
4 nism gathers and tracks data for energy conservation measures installed  
5 through each DSM program. Columbia used this data to calculate the pro-  
6 jected natural gas savings using the formulas identified in the State of  
7 Ohio Energy Efficiency Technical Reference Manual ("TRM"), with the ex-  
8 ceptions of the WarmChoice<sup>®</sup> program where historic billing analysis was  
9 used, the Home Energy Reports program where guaranteed contract sav-  
10 ings with adjustments for measured actual savings were used, and Simple  
11 Energy Solutions program where smart thermostats are included as mod-  
12 eled using the methodology from Case No. 16-1309-GA-UNC, et al. Pro-  
13 jected natural gas savings for the Innovative Energy Solutions program  
14 and Small Commercial Construction program are calculated using an en-  
15 ergy audit or building modeling software. Using the energy conservation  
16 measures' lifetimes identified in the TRM, Columbia calculated the pro-  
17 jected lifetime natural gas savings and the value of the natural gas savings  
18 for all of its DSM programs. Columbia's shared savings were computed by  
19 taking the difference between the net present value of the DSM program  
20 lifetime energy savings and the value of the DSM program costs calculat-  
21 ed from the Utility Cost Test. Columbia provided the data tracking tool,  
22 including DSM program data, to Mr. Pigg, to verify that the natural gas  
23 savings complied with the approved methods for determining savings.  
24 Mr. Pigg's testimony discusses the process used and the results of the  
25 shared savings verification process.

26  
27 **Q. Did Columbia retain shared savings from its DSM programs in 2018?**

28 A. Yes. Columbia exceeded 125% of its annual natural gas savings target,  
29 making it eligible to retain 10% of the net benefit value of the natural gas  
30 savings.

31  
32 **EXPLANATION OF REMAINING SCHEDULES**

33  
34 **Q. Would you please provide a brief explanation of each of the schedules?**

35 A. Attachment A sets forth the proposed combined volumetric Rider DSM  
36 rate for each rate schedule. It also sets forth the monthly Rider IRP rate,  
37 which Columbia witness Thompson is also sponsoring. Attachment B de-  
38 tails the rate schedules to which Rider DSM applies. Attachment C is a  
39 typical bill comparison which provides for the quantification of the impact

1 of Columbia's proposed DSM and IRP rates on customers' bills at various  
2 consumption levels.  
3

4 **REASONABLENESS OF REQUESTED INCREASE AND BENEFITS TO**  
5 **RATEPAYERS AND THE PUBLIC INTEREST**  
6

7 **Q. Does the revenue requirement detailed on Schedule DSM-1 exceed**  
8 **what was presented in Columbia's Notice of Intent filed in this docket**  
9 **on November 28, 2018?**

10 A. No. Columbia is proposing a revenue requirement of \$22,287,876 in the  
11 schedules supported by my testimony. This does not exceed the combined  
12 annualized revenue requirement of \$25,105,609 estimated on November  
13 28, 2018.  
14

15 **Q. Do you have an opinion regarding whether Columbia's request to**  
16 **adjust the Rider DSM is reasonable?**

17 A. Yes. I believe Columbia's request to adjust its Rider DSM is fair and  
18 reasonable. These are necessary business expenses incurred in the day-to-  
19 day operations of the DSM Program.  
20

21 **Q. Do the DSM programs benefit ratepayers and the public interest?**

22 A. Yes. The DSM programs will provide all Columbia customers easy access  
23 to energy saving measures, which will directly reduce natural gas usage,  
24 improving the affordability of natural gas service. Beyond the value of en-  
25 ergy savings, DSM programs provide other benefits such as improved  
26 safety, reduced greenhouse gas emissions, a lower carbon footprint, and  
27 reduced water and electricity consumption.  
28

29 **Q. Has the calculation of shared savings changed since last year?**

30 A. No.  
31

32 **Q. Does this complete your Prepared Direct Testimony?**

33 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 28th day of February, 2019 upon the parties listed below.

/s/ Joseph M. Clark

Joseph M. Clark

Attorney for

**COLUMBIA GAS OF OHIO, INC.**

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