

FILE

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of )  
Columbia Gas of Ohio, Inc. for Approval )  
of Tariffs to Recover, Through, an )  
Automatic Adjustment Clause, Costs )  
Associated with the Establishment of an )  
Infrastructure Replacement Program and )  
for Approval of Certain Accounting )  
Treatment. )

Case No. 07-478-GA-UNC

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**PREPARED TESTIMONY**

**OF**

**BRUCE M. HAYES**

**ON BEHALF OF  
THE OFFICE OF THE OHIO CONSUMERS' COUNSEL**  
10 West Broad St., Suite 1800  
Columbus, OH 43215

**October 23, 2007**

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## **ATTACHMENTS**

BMH Attachment 1: Duke Response to OCC Interrogatory No. 20 in Case No. 07-589-GA-AIR; Duke Response to OCC Request to Produce No. 21, page 2 of 12 in Case No. 07-589-GA-AIR

BMH Attachment 2: Duke Response to OCC Request to Produce No. 22, page 2 of 12 in Case No. 07-589-GA-AIR

BMH Attachment 3: Potential Savings Calculation

BMH Attachment 4: Duke Response to OCC Interrogatory Nos. 26 and 37 in Case No. 07-589-GA-AIR

1    **I.        INTRODUCTION**

2    ***Q1.    PLEASE STATE YOUR NAME, ADDRESS AND POSITION.***

3    ***A1.***    My name is Bruce M. Hayes. My business address is 10 West Broad Street, Suite  
4            1800, Columbus, Ohio 43215-3485. I am employed by the Office of the Ohio  
5            Consumers' Counsel ("OCC" or "Consumers' Counsel") as a Senior Regulatory  
6            Analyst.

7  
8    ***Q2.    WOULD YOU PLEASE BRIEFLY SUMMARIZE YOUR EDUCATIONAL***  
9       ***AND PROFESSIONAL EXPERIENCE?***

10   ***A2.***    I graduated from the University of Kentucky in 1973 with a Bachelor of Science  
11            in Mechanical Engineering. I joined Aetna Life and Casualty in 1973 and held  
12            various positions related to Loss Control and Safety Engineering. In 1979, I  
13            joined Columbia Gas of Kentucky ("CKY") as an Industrial Sales Engineer. I  
14            transferred to Columbia Gas of Ohio ("COH") in 1986 and held a variety of  
15            positions in economic development, marketing and sales. During my time at the  
16            Columbia companies, I was actively involved in the development and  
17            implementation of the industrial and commercial gas transportation programs. In  
18            the early 1980's, I was involved in expanding CKY's transportation program from  
19            a single self help customer to over fifty industrial and large commercial customers  
20            by initially establishing special contract interstate transportation programs like the  
21            Fuel Oil Displacement and Special Marketing Programs. I was also involved in a  
22            customer issue regarding intrastate transportation and valuation of gas. We  
23            modified our methodology so that valuation of gas occurred on British Thermal

1 units ("Btu") value rather than volume. This led to changes in transportation  
2 policies and billing in all the states in the Columbia Gas Distribution System.

3  
4 In the 1990's I managed the COH rate flexing or rate discounting program for  
5 industrial customers, arranged for long term capacity release to large customers  
6 and arranged discounts on Columbia Gas Transmission interstate pipelines. I had  
7 input to the transportation and gas supply departments on issues such as  
8 transportation contracts, curtailment, enhanced banking arrangements and  
9 electronic measurement for large volume customers.

10  
11 In 2002, I joined OCC as a Senior Regulatory Analyst. My duties include  
12 research, investigation and analysis of gas and electric utility filings at the state  
13 and federal levels, participation in special projects and assistance in policy  
14 development and implementation. I represent OCC on the gas committee of The  
15 National Association of State Utility Consumer Advocates and have served as an  
16 Executive Committee member with the North American Energy Standards Board.  
17 I have participated in various Ohio Gas Cost Recovery ("GCR") case work and  
18 Management/Performance ("M/P") audits beginning with my Senior Staff  
19 Engineer position with Columbia Gas of Ohio and as a Senior Regulatory Analyst  
20 for the OCC.

1 **Q3. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THIS**  
2 **COMMISSION?**

3 **A3.** Yes. I have testified in the following Public Utilities Commission of Ohio  
4 (“PUCO”) cases:  
5 *Dominion East Ohio Company* (“DEO”), Case No. 05-219-GA-GCR; and  
6 *Columbia Gas of Ohio, Inc.* (“COH”), Case Nos. 04-220-GA-GCR and 05-220-  
7 GA-GCR.

8  
9 **Q4. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE**  
10 **ANOTHER STATE REGULATORY COMMISSION?**

11 **A4.** Yes. I submitted testimony on behalf of CKY, before the Kentucky Public  
12 Service Commission in CKY, Inc. Rate Case No. 8281.<sup>1</sup> The testimony was  
13 related to a long term decrease in the forecasted throughput for CKY.

14  
15 **Q5. WHAT DOCUMENTS HAVE YOU REVIEWED IN THE PREPARATION OF**  
16 **YOUR TESTIMONY?**

17 **A5.** I reviewed all public documents filed under PUCO Case No. 07-478-GA-UNC. I  
18 have also reviewed Columbia Gas Ohio, Inc.’s (“COH”, “the Company”, or  
19 “Columbia”) responses to data requests by the Utility Service Partners, Inc  
20 (“USP”) and OCC in this docket. I also reviewed certain documents related to  
21 Case Nos. 00-681-GA-GPS and 05-463-GA-COI. I have also attended and  
22 reviewed the depositions of Duke Energy Ohio, Inc (“Duke”) employees Gary J.

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<sup>1</sup> *In the Matter of An Adjustment of Rates of Columbia Gas of Kentucky, Inc.*, Case No. 8281, Order (December 30, 1981).

1 Hebbeler and William Don Wathen in Case No. 07-590-GA-ALT as well as  
2 interrogatories in that case related to the Accelerated Main Replacement Program  
3 ("AMRP") and the associated risers replacement covered in that proposed  
4 program. I am familiar with meter and regulator settings, by way of training from  
5 Columbia Gas and I have reviewed a number technical sites related to risers,  
6 service head adaptors and gas pipe fittings. I have also discussed gas riser and  
7 partial replacement service head adaptors with a consultant hired by OCC for  
8 work in Case 05-463-GA-COI.

9  
10 **II. PURPOSE OF TESTIMONY**

11 ***Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS***  
12 ***PROCEEDING?***

13 ***A6.*** The purpose of my testimony is to present a number of issues and questions which  
14 should be addressed prior to any decision in this case. I believe that COH has  
15 rushed its application for approval of tariffs to recover costs associated with the  
16 establishment of an Infrastructure Replacement Program ("IRP") because the  
17 application does not present complete and detailed plans and analysis that would  
18 result in a safe and cost efficient riser replacement program within a reasonable  
19 time period. Therefore the Commission should not approve cost recovery of  
20 COH's IRP until the details and full analysis of costs and alternatives are  
21 presented and the questions raised in my testimony have been addressed on the  
22 record in this proceeding.

1 **III. COLUMBIA'S TOTAL REPLACEMENT PLAN IS NOT THE**  
2 **LEAST COST/REASONABLE OPTION.**

3  
4 ***Q7. ON WHAT BASIS ARE YOU CONCLUDING THE REPLACEMENT PLAN***  
5 ***IS NOT THE LEAST COST/REASONABLE OPTION?***

6 ***A7.*** In preparing comments for the generic riser investigation (Case No. 05-463-GA-  
7 COI), OCC was made aware of riser service head adaptor replacement kits that  
8 were available for replacement for the prone to leak service head adaptors. In  
9 discussions with Duke and later discovery and depositions of Duke's personnel,  
10 OCC confirmed that the partial replacement kits or partial replacement service  
11 head adaptors were being utilized and the partial replacement service head  
12 adaptors did present a lower cost alternative to full riser replacement.

13  
14 ***Q8. WHAT TYPE OF SAVINGS WERE EXPERIENCED BY DUKE***  
15 ***UTILIZING THE PARTIAL REPLACEMENT SERVICE HEAD***  
16 ***ADAPTOR?***

17 ***A8.*** Duke experienced actual cost savings of \$27.76 between the material and labor  
18 cost of using the partial replacement versus the full replacement riser for prone to  
19 leak risers since 2005. (See BMH Attachment 1) Additionally, unmeasured  
20 savings were attributed to avoiding excavation and potential removal and  
21 replacement of hard surfaces such as concrete and blacktop, avoiding damage of  
22 drain tiles, and avoiding or reducing the cost of remediation of expensive  
23 landscaping. For example, in Duke it was estimated that the cost to excavate a  
24 soft hole (in dirt) was \$75 and to excavate a hard hole (in concrete or stone) was  
25 \$150. (See BMH Attachment 1)

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***Q9. WHAT PERCENTAGE OF RISERS PRONE TO LEAK DOES DUKE ESTIMATE CAN BE REPLACED USING PARTIAL REPLACEMENT?***

***A9.*** Based on actual experience since 2005, Duke estimates they may be able to replace 75% of the 87,000 remaining prone to leak risers using less costly partial replacement service head adaptors and 25% using full replacement risers. (See BMH Attachment 2)

***Q10. CAN YOU DETERMINE THE COST SAVINGS OF USING THE PARTIAL REPLACEMENT SERVICE HEAD ADAPTOR?***

***A10.*** It would be difficult to determine the exact cost per replacement due to the variables involved. However, a potential magnitude of savings could be calculated by using Duke's actual \$27.76 savings per unit plus COH's estimate of cost for surface restoration of \$81 and damages of \$18 that could be avoided, times the estimated 330,000 riser replacements times percentage of risers that could be eligible for the partial replacement service head adaptor, in this case 75%, based on Duke's riser replacement experience. (See BMH Attachment 3)



1 ***Q11. WHEN CAN THE PARTIAL REPLACEMENT SERVICE HEAD ADAPTOR***  
2 ***BE USED?***

3 ***A11.*** It is my understanding the partial replacement service head adaptor can be used  
4 when there is a minimum of at least 8 inches between the ground and the point on  
5 the riser above ground where the old service head adaptor is cut off. In addition,  
6 the remaining lower portion of the riser needs to be free of corrosion and the  
7 plastic pipe free of damage.  
8

9 ***Q12. WHAT STEPS DID DUKE TAKE TO ENSURE THAT THE PARTIAL***  
10 ***REPLACEMENT SERVICE HEAD ADAPTOR IS A SAFE, LEAST***  
11 ***COST/REASONABLE ALTERNATIVE?***

12 ***A12.*** Duke worked with the Perfection Corporation to provide a safe partial  
13 replacement service adaptor head that provided a lower cost alternative to full  
14 riser replacement. Duke and Perfection also submitted the partial replacement  
15 service head adaptor to Battelle Memorial Institute Laboratories for additional  
16 testing for safety. (See BMH Attachment 4)  
17

18 **IV. THE COH IRP PLAN IS INCOMPLETE AND UNREASONABLE.**

19 ***Q13. HAS COLUMBIA PRESENTED A COMPLETE AND REASONABLE PLAN***  
20 ***TO REPLACE LEAKING AND PRONE TO LEAK RISERS?***

21  
22 ***A13.*** No. Columbia's application does not contain:

- 23 • Any consideration of the partial replacement alternative;  
24 • Any details or cost analysis of how the materials will be procured;

- 1 • What riser has been selected to replace prone to leak Design A  
2 risers;
- 3
- 4 • Any details on communications made to the public;
- 5 • Any details on the priority or order of customers selected for riser  
6 replacement;
- 7
- 8 • Any details on riser replacement by random selection or some type  
9 of geographic selection, that is, street, neighborhood, city, etc;
- 10
- 11 • Any details on how many in house or contracted workers will be  
12 used; and
- 13
- 14 • Any details or cost analysis of the mix of in house or contracted  
15 workers.
- 16

17 ***Q14. HAS COH PRESENTED AN ANALYSIS OF ALTERNATIVES?***

18

19 ***A14.*** No. The lack of details in the COH plan makes through analysis of the costs of

20 the plan impossible. COH's application does not discuss alternative approaches.

21 Duke is currently replacing its 87,000 Design A risers over a 27 year period, and

22 has proposed in its rate case filing (Case No. 07-589-GA-AIR) to speed that

23 replacement up to 9 years as part of its AMRP plan. DEO has proposed to replace

24 its smaller number of prone to leak risers over a twenty year program in its rate

25 case filing (Case No. 07-829-GA-AIR). COH has proposed a three year riser

26 replacement program. There are possible implications for the different timelines.

27 For example, if COH has based its replacement plan based on resources available

28 in a three year program, where does that leave other gas distribution companies

29 located within COH geographic area? Will smaller companies be left to hire

30 higher cost contractors to replace risers if COH decides to bid out contract work?

31

1 **Q15. WHY IS IT YOUR OPINION THAT THE COH APPLICATION TO**  
2  
3 **RECOVER IRP COSTS IS RUSHED?**

4  
5 **A15.** The need to replace leaking risers is necessary and reasonable, however, there has  
6 been no explanation of the plan time differences between COH and the other  
7 LDCs. The rush to replace prone to leak risers with a plan that does not include  
8 what replacement riser is to be used, presents few details or cost analysis is  
9 unreasonable and could possibly lead to a costly replacement program with  
10 unproven safety benefits.

11  
12 **V. CONCLUSION**

13 **Q16. WHAT IS YOUR RECOMMENDATION?**

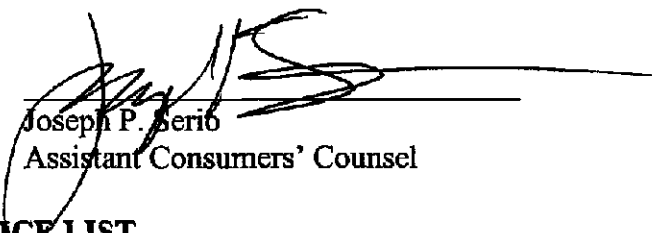
14 **A16.** Based on the failure of COH to consider the cost efficient use of the partial  
15 replacement service head adaptor; lack of detail in the procurement of materials,  
16 mix of in-house employees and contractors; and lack of analysis of alternatives,  
17 the Commission should not approve cost recovery of COH's IRP until the details  
18 and full analysis of costs and alternatives are presented and the questions raised in  
19 my testimony have been addressed on the record in this proceeding.

20  
21 **Q17. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

22 **A17.** Yes it does. However I reserve the right to incorporate new information that may  
23 subsequently become available.

## **CERTIFICATE OF SERVICE**

I hereby certified that a true copy of the foregoing Prepared Testimony of Bruce M. Hayes, on behalf of the Office of the Ohio Consumers' Counsel, was served by first class United States Mail, postage prepaid, and electronic mail to the persons listed below, on this 23<sup>rd</sup> day of October, 2007.

  
Joseph P. Serio  
Assistant Consumers' Counsel

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## **BMH Attachment 1**

**Ohio Consumers' Counsel  
Third Set Interrogatories  
Duke Energy Ohio, Inc.  
PUCO Case No. 07-589-GA-AIR  
PUCO Case No. 07-590-GA-ALT  
PUCO Case No. 07-591-GA-AAM  
Date Received: August 14, 2007  
Response Due: September 4, 2007**

**OCC-INT-03-020**

**REQUEST:**

20. Referring to the response to OCC Interrogatory No. 17, please detail the cost associated with each different procedure or process used by DE-Ohio to repair or replace defective or prone to leak natural gas risers.

**RESPONSE:**

DE-Ohio's current costs are as follows:

Install riser less than two inches:

Contractor Labor: \$198.00  
Material: \$ 78.79

Install adapter:

Contractor Labor: \$171.00  
Material: \$78.03

The above costs do not include the cost of Company inspections, or the cost of overseeing contractors or Company employees, or situations where hard pavement restoration or extraordinary landscaping restoration is required.

Other situational charges that may apply:

Re-light customer appliances: \$34.00  
Extra hole in soft surface: \$75.00  
Extra hole in hard surface: \$150.00

**WITNESS RESPONSIBLE:** Gary J. Hebbeler

**Ohio Consumers' Counsel  
Third Set Production of Documents  
Duke Energy Ohio, Inc.  
PUCO Case No. 07-589-GA-AIR  
PUCO Case No. 07-590-GA-ALT  
PUCO Case No. 07-591-GA-AAM  
Date Received: August 14, 2007  
Response Due: September 4, 2007**

**OCC-POD-03-021**

**REQUEST:**

21. Please provide copies of all workpapers, data, source documents, and/or other information DE-Ohio relied upon in responding to OCC Interrogatory Nos. 20 and 21 pertaining to the costs associated with the different procedures and processes used or not used by DE-Ohio to repair or replace defective or prone to leak natural gas risers.

**RESPONSE:**

See Attachment OCC-POD-03-021.

**WITNESS RESPONSIBLE:** Gary J. Hebbeler

**Duke Energy Ohio**  
**Response to OCC-POB-03-021**  
**(OCC-INT-03-020)**  
**Support for Material Costs**

	<u>Material Item</u>	<u>Unit Price</u>
Perfection Adapter	Adapter	\$ 21.10
	Support Bracket	\$ 4.93
	Meter Bracket	\$ 52.00
	Total Adapter	\$ 78.03
Perfection Riser	Riser	\$ 21.86
	Support Bracket	\$ 4.93
	Meter Bracket	\$ 52.00
	Total Riser	\$ 78.79



## **BMH Attachment 2**

**Ohio Consumers' Counsel  
Third Set Production of Documents  
Duke Energy Ohio, Inc.  
PUCO Case No. 07-589-GA-AIR  
PUCO Case No. 07-590-GA-ALT  
PUCO Case No. 07-591-GA-AAM  
Date Received: August 14, 2007  
Response Due: September 4, 2007**

**OCC-POD-03-022**

**REQUEST:**

22. Please provide copies of all workpapers, data, source documents, and/or other information DE-Ohio relied upon in responding to OCC Interrogatory Nos. 31 and 32 pertaining to the number of gas riser repairs (already performed or to be performed) by DE-Ohio or others under DE-Ohio's control.

**RESPONSE:**

See Attachment OCC-POD-03-022.

**WITNESS RESPONSIBLE:** Gary J. Hebbeler

**Duke Energy Ohio**  
**Response to OCC-POD-03-022**  
**(OCC-INT-03-032)**

PUCO Case No. 07-589-GA-AIR  
Attachment OCC-POD-03-022  
Page 2 of 2

Riser Optimization Program			
Year	Prone to Leak Adapters	Prone to Leak Risers	Prone to Leak Total
2005	3,703	745	4,448
2006	1,319	805	2,124
2007	752	414	1,166
			<u>7,738</u>

## BMH Attachment 3

**BMH Attachment 3**

**Potential Magnitude of Savings Using Partial Replacement Service Head Adaptor**

Number of Prone to Leak Risers	% of Risers Subject to Partial Replacement	Duke Labor and Material Savings	COH Costs for Surface Restoration & Damages \$81 + \$18 = \$99	Total Potential Savings Using Partial Replacement
330,000	x 75%	x ( \$	27.76 plus \$	31,373,100.00
			99.00 ) =	
				\$

## **BMH Attachment 4**

**Ohio Consumers' Counsel  
Third Set Interrogatories  
Duke Energy Ohio, Inc.  
PUCO Case No. 07-589-GA-AIR  
PUCO Case No. 07-590-GA-ALT  
PUCO Case No. 07-591-GA-AAM  
Date Received: August 14, 2007  
Response Due: September 4, 2007**

**OCC-INT-03-026**

**REQUEST:**

26. Referring to the response to OCC Interrogatory No. 17, please identify each meeting, and who was in attendance, that the Company has held with manufacturers or other experts regarding different procedures or processes used by DE-Ohio to repair or replace defective or prone to leak natural gas risers.

**RESPONSE:**

DE-Ohio met on various occasions with representatives from Perfection, Continental, Lyall, and Battelle to discuss riser replacement. The dates of the meetings and attendees were not recorded by DE-Ohio employees.

**WITNESS RESPONSIBLE:** Gary J. Hebbeler

**Ohio Consumers' Counsel  
Third Set Interrogatories  
Duke Energy Ohio, Inc.  
PUCO Case No. 07-589-GA-AIR  
PUCO Case No. 07-590-GA-ALT  
PUCO Case No. 07-591-GA-AAM  
Date Received: August 14, 2007  
Response Due: September 4, 2007**

**OCC-INT-03-037**

**REQUEST:**

37. Referring to the response to OCC Interrogatory No. 17, please identify any non-DE-Ohio parties that worked with the Company to develop the different procedures and processes used by DE-Ohio to repair or replace defective or prone to leak natural gas risers.

**RESPONSE:**

Perfection, Continental, Lyall, and Battelle.

**WITNESS RESPONSIBLE:** Gary J. Hebbeler