

April 4, 2016

Mr. James W. Gardner
Acting Executive Director
Public Service Commission
Commonwealth of Kentucky
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

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PUBLIC SERVICE
COMMISSION

RE: Case No. 2016-00107

Dear Mr. Gardner

Enclosed for docketing with the Commission is an original and ten (10) copies of Columbia Gas of Kentucky Inc.'s responses to the Commission's Order of March 24, 2016. Should you have any questions about this filing, please contact me at 614-460-5558.

Sincerely,

Brooke E. Wancheck (gmc)

Brooke E. Wancheck
Assistant General Counsel

Enclosures

cc: Hon. Richard S. Taylor
Hon. Stephen B. Seiple

KY PSC Case No. 2016-00107
Staff's Data Request Set One No. 1
Respondent: Judy Cooper

**COLUMBIA GAS OF KENTUCKY, INC.
RESPONSE TO STAFF'S FIRST REQUEST FOR INFORMATION
DATED MARCH 24, 2016**

1. Refer to Columbia's application ("Application"). page 2, paragraph 4.
Confirm that Columbia's DSM program was first approved in Case No. 2009-00242.

Response: Yes, Columbia's DSM program originated with Case No. 2009-00242.

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2. Refer to the Application, page 3, paragraph 7.
 - a. Expand on the changes in the program suggested by the Community Action Council and IGS.
 - b. Provide support for the rejection of the suggested changes.

Response:

- a. In addition to the increased cost in the furnace-replacement program, the Community Action Council ("CAC") proposed to install weatherization measures in lieu of replacing a furnace for individual qualifying low-income customers. The available weatherization options would include insulation, duct and air sealing, repair and general maintenance of plumbing, HVAC systems and/or the residential premise. The CAC stated that the "WeCare" program of Kentucky Utilities, Inc., provides weatherization services based upon tier levels determined by the customer's electric usage. Participants in the lower

tier receive significantly less weatherization measures than participants in the higher tier. Customers that heat with gas generally use less electricity and therefore are eligible for only minimal weatherization services from the "WeCare" program. The CAC stated that depending on the conditions of the home, various weatherization measures may produce more gas usage savings than replacing a furnace.

IGS Energy ("IGS") suggested the idea of exploring combined heat and power projects as a potential commercial program. IGS stated that the CHP unit would be an efficiency improvement over a distributed generator without CHP. The CHP unit is used only to create electricity. While creating the power the CHP unit captures heat and reduces boiler requirements and annual fuel use.

- b. Columbia declined to change its low-income furnace replacement program to provide weatherization measures in lieu of a furnace replacement. When a new furnace is installed, Columbia has a reasonable expectation of natural gas service to that premise for the useful life of the newly installed equipment. Absent that replacement, if the customer's furnace failed, it could be replaced with a different energy source and Columbia could not be assured that the customer would remain a natural gas customer. Columbia does not believe it is

reasonable to change the low-income furnace replacement program to provide weatherization measures in lieu of replacing the furnace and have the potential of Columbia customers paying for weatherization improvements for non-customers.

The suggestion of IGS to explore CHP projects needs further exploration and understanding as to the potential interest and applicability in Columbia's service area. Therefore, it is not proposed as a new measure at this time.

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3. Refer to the Application, the Prepared Direct Testimony of William Steven Seelye ("Seelye Testimony"), page 5. lines 1-2.

a. Explain why there are no Energy Efficiency/Conservation Programs offered to Columbia's commercial customers.

b. Explain whether Columbia plans to offer any commercial Energy Efficiency/Conservation Programs.

Response:

a. and b. Columbia viewed it more practical to address continuation of the residential program without proposing any increase in rates, as would be required for a commercial program. Columbia is not averse to offering a commercial program but has no immediate plans to do so.

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4. Refer to the Seelye Testimony, page 13, line 6-11. Columbia is proposing to increase the furnace replacement cost; however, it is not proposing to increase the overall cost of its DSM programs.

- a. Explain whether the current level of funding will be sufficient to cover the proposed increased replacement cost.
- b. Explain whether the increased funding will necessitate a decrease in the number of participants served.

Response:

Because Columbia is not proposing to increase the annual budget for furnace replacements, the increased finance replacement cost could result in a reduction in the number of participants served. However, Columbia will continue to assess the effectiveness of the program and will propose future modifications to the funding level, as appropriate.

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5. Refer to the Seelye Testimony, page 14, and Exhibits Seelye 2-4
- a. Confirm that the number of participants in 2010, the first full year of the program, was uncharacteristically low at 207 compared to participation in the following years.
 - b. Provide revised average annual totals for the Seelye Exhibits based on average information for the more representative five years 2011-2015.

Response:

- a. Yes, the number of participants in 2010 was uncharacteristically low compared to the subsequent years.
- b. See attached.

Columbia Gas of Kentucky, Inc.
 Energy Efficiency/Conservation Program Costs

Exhibit Seelye-3
 As Revised

Program Period Year End	Energy Audit Program	High-Efficiency Appliance Rebate Program	Furnace Replacement Program	Direct Program Cost	CKY Program Administration	Total Program Cost
Oct-11	171,252	616,153	195,801	983,206	2,500	985,706
Oct-12	29,949	442,839	296,421	769,209	27,694	796,903
Oct-13	302,235	443,083	704,940	1,450,258	20,325	1,470,583
Oct-14	40,257	498,650	531,170	1,070,077	73,170	1,143,247
Oct-15	32,189	451,731	252,645	736,565	18,397	754,962
Total	\$ 575,882	\$ 2,452,456	\$ 1,980,977	\$ 5,009,315	\$ 142,086	\$ 5,151,401
Average Annual	\$ 115,176	\$ 490,491	\$ 396,195	\$ 1,001,863	\$ 28,417	\$ 1,030,280

**Exhibit Seelye-4
As Revised**

**Columbia Gas of Kentucky, Inc.
Energy Efficiency/Conservation Program Participants**

Program Period Year End	Energy Audit Program	High-Efficiency Appliance Rebate Program	Furnace Replacement Program	Total Program Participants
Oct-11	277	1,429	91	1,797
Oct-12	158	1,138	160	1,456
Oct-13	1,399	1,194	264	2,857
Oct-14	252	1,248	198	1,698
Oct-15	116	1,179	98	1,393
Total	2,202	6,188	811	9,201
Average Annual	440	1,238	162	1,840

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6. Provide the most current results of the cost/benefit analysis performed according to the California Standard Practice Manual individually for the High-Efficiency Appliance Rebate Program, the Home Energy Audit Program, and the modified Low-Income High Efficiency Furnace Replacement Program, and for Columbia's DSM program as a whole.

Response:

Attached is the updated cost/benefit analysis for the DSM programs filed in Case No. 2009-00242 which were approved by the Commission in that proceeding.

The cost/benefit analysis, which is similar to the Total Resource Cost Test described in the California Standard Practice Manual, has been updated for the current cost of natural gas, which is near the lowest level that gas costs have been in 20 years.

The net benefits for each program is as follows

Net Benefits

High-Efficiency Appliance Rebate Program	\$ 7,742
Home Energy Audit Program	\$ 325,405
Low-Income High Efficiency Furnace Replacement Program	<u>\$ (267,609)</u>
Total Program	\$ 65,538

It should be noted that the Low-Income High Efficiency Furnace Replacement Program did not show a positive net benefit when it was approved in Case No. 2009-00242. Columbia Gas continues to believe that this program fulfills an important need in its service territory for the installation of high-efficiency furnaces for customers who could not otherwise afford the installation of high efficiency furnaces.

**Net Benefits Analysis
Energy Audit Program**

Year	Estimated Annual Mcf Savings	Projected Gas Cost	Commodity Savings	PV Factor	Present Value Savings
1	12000	4.57	54783.6	0.938967	51,440.00
2	12000	4.88	58618.452	0.881659	51,681.50
3	12000	5.23	62721.74364	0.827849	51,924.14
4	12000	5.59	67112.26569	0.777323	52,167.91
5	12000	5.98	71810.12429	0.729881	52,412.83
6	12000	6.40	76836.83299	0.685334	52,658.90
7	12000	6.85	82215.4113	0.643506	52,906.13
8	12000	7.33	87970.49009	0.604231	53,154.51
9	12000	7.84	94128.4244	0.567353	53,404.07
10	12000	8.39	100717.4141	0.532726	53,654.79

Discount Rate 0.065

Present Value Savings \$ 525,405

Program Cost \$ 200,000

Net Benefits \$ 325,405

Net Benefits Analysis
High Efficiency Appliance Rebate Program

Year	Estimated Annual Mcf Savings	Projected Gas Cost	Commodity Savings	PV Factor	Present Value Savings
1	9312.645902	4.57	42515.02233	0.938967	39,920.21
2	9312.645902	4.88	45491.0739	0.881659	40,107.63
3	9312.645902	5.23	48675.44907	0.827849	40,295.93
4	9312.645902	5.59	52082.73051	0.777323	40,485.11
5	9312.645902	5.98	55728.52164	0.729881	40,675.18
6	9312.645902	6.40	59629.51816	0.685334	40,866.14
7	9312.645902	6.85	63803.58443	0.643506	41,058.00
8	9312.645902	7.33	68269.83534	0.604231	41,250.76
9	9312.645902	7.84	73048.72381	0.567353	41,444.43
10	9312.645902	8.39	78162.13448	0.532726	41,639.00

Discount Rate	0.065	
Present Value Savings		\$ 407,742
Program Cost		\$ 400,000
Net Benefits		\$ 7,742

Net Benefits Analysis
Low-Income High Efficiency Furnace Replacement Program

Year	Estimated Annual Mcf Savings	Projected Gas Cost	Commodity Savings	PV Factor	Present Value Savings
1	922.517037	4.57	4211.567029	0.938967	3,954.52
2	922.517037	4.88	4506.376721	0.881659	3,973.09
3	922.517037	5.23	4821.823092	0.827849	3,991.74
4	922.517037	5.59	5159.350708	0.777323	4,010.48
5	922.517037	5.98	5520.505258	0.729881	4,029.31
6	922.517037	6.40	5906.940626	0.685334	4,048.23
7	922.517037	6.85	6320.42647	0.643506	4,067.23
8	922.517037	7.33	6762.856322	0.604231	4,086.33
9	922.517037	7.84	7236.256265	0.567353	4,105.51
10	922.517037	8.39	7742.794204	0.532726	4,124.79

Discount Rate 0.065

Present Value Savings \$ 40,391

Program Cost \$ 308,000

Net Benefits \$ (267,609)