COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION OF THE REASONABLENESS OF THE ENERGY EFFICIENCY AND CONSERVATION RIDER OF COLUMBIA GAS OF KENTUCKY, INC.	))))	CASE NO. 2018-00044

ORDER

On December 29, 2017, Columbia Gas of Kentucky, Inc. (Columbia Gas), filed a revised tariff sheet, via the Commission's electronic Tariff Filing System, proposing to revise its Energy Efficiency/Conservation Program Recovery Component pursuant to its tariff. The proposed tariff sheet contained an effective date of January 31, 2018.[1] Concerned that demand-side management (DSM) programs are becoming more difficult to justify on the basis of both costs and benefits, the Commission found that an investigation was necessary to determine both the reasonableness of Columbia Gas's proposed revision and the Energy Efficiency/Conservation (EEC) Rider as a whole. On January 30, 2018, pursuant to KRS 278.190(2), the Commission suspended the effective date of the proposed tariff for five months, from January 31, 2018, up to and including June 29, 2018.

On May 11, 2018, the Commission issued a procedural schedule to investigate the reasonableness of Columbia Gas's proposed tariff revision, as well as the EEC Rider. The Attorney General of the Commonwealth of Kentucky, by and through the Office of

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[1] TFS 2017-00710.

Rate Intervention (Attorney General) and the Community Action Council for Lexington-Fayette, Bourbon, Harrison, and Nicholas counties, Inc. (CAC), requested and were granted full intervention.

Columbia Gas responded to three rounds of discovery from Commission Staff and one round of discovery from the Attorney General and the CAC and intervenor testimony was filed by the CAC. On June 15, 2018, Columbia Gas filed a motion for an Informal Conference (IC) to discuss the procedural schedule and to answer informally any questions Staff or any other party may have regarding Columbia Gas's EEC Rider. The IC was held on June 18, 2018. During the IC, Columbia Gas expressed its desire to amend the procedural schedule to allow Columbia Gas an opportunity to file testimony in support of its EEC Rider. On June 19, 2018, Columbia Gas filed motions requesting a suspension of the existing procedural schedule, additional time to file its response to a data request, and an opportunity to file direct testimony. The Commission issued an Order on June 22, 2018, suspending the existing procedural schedule and issued a revised procedural schedule.

Columbia Gas responded to two additional rounds of discovery from Commission Staff. Each of the parties indicated in writing that the case could be submitted for a decision on the record without a hearing. The matter now stands submitted to the Commission for a decision.

COLUMBIA GAS'S DSM PORTFOLIO

Columbia Gas's EEC Rider currently includes the following programs as approved through June 30, 2021, in Case No. 2016-00107.[2]

[2] Case No. 2016-00107, *Tariff Application of Columbia Gas of Kentucky, Inc. to Continue its Energy Efficiency Conservation Rider and Energy Efficiency Conservation Program* (Ky. PSC Oct. 11, 2016).

- **High-Efficiency Appliance Rebates Program:** Provides rebates for the installation of high-efficiency appliances including furnaces, space heaters, and water heaters;
- **Home Energy Audits:** Provides free walk-through energy audits; and
- **Low-Income High-Efficiency Furnace Replacement Program:** Provides up to $2,800 towards the cost of installing a high-efficiency forced-air furnace for a qualifying low-income customer.

The annual budget for Columbia Gas's EEC Rider is $908,000 and since 2009, 11,886 customers have participated.[3] Columbia's initial tariff filing only included a revision of the EEC Rider program balancing adjustment. No changes to the programs or the budget were requested.[4]

COST-EFFECTIVENESS

Columbia Gas provided results of cost-effectiveness tests (California Tests), which are widely used in the evaluation of DSM programs and are set out in the California Standard Practice Manual (Manual).[5] After several iterations to determine the cost-effectiveness, Columbia Gas submitted that only the High-Efficiency Rebate Programs are cost-effective, and this is only when Columbia makes the assumption that 1 or 2 percent of the customers receiving benefits would have switched to an alternative energy

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[3] Prepared Direct Testimony of William Steven Seeley on Behalf of Columbia Gas of Kentucky, Inc. (Seeley Testimony) at 17.

[4] *Id.*, at 9.

[5] A DSM program passes one or more of the California tests if the program benefits divided by the program costs equal 1.0 or greater.

source such as electricity for space heating or for replacement appliances had the programs not been in effect.[6]

DISCUSSION

Columbia Gas's DSM program was first developed and approved in Case No. 2009-00141 and pursuant to the Final Order in that case, Columbia Gas established the DSM Collaborative.[7] Columbia sought input from this DSM Collaborative for the most recent program renewal application, Case No. 2016-00107, and believes its offerings effectively achieve the goal of providing residential customers the opportunity to reduce natural gas consumption at a cost that is fair, just, and reasonable.[8] Columbia Gas contends that the programs improve customer safety, comfort, and productivity. Columbia Gas avers that the programs reduce the wasteful and inefficient use of natural gas through the replacement of old, inefficient appliances.[9] Additionally, Columbia Gas claims that it has become more difficult for gas utilities to retain existing customers and to pipe out service to new homes. Columbia Gas asserts that DSM programs help to ensure that it can continue to provide gas service for major appliances as DSM programs encourage customers to choose gas appliances over electric.[10] Columbia Gas further states that the programs benefit non-participants as they help to avoid spreading the

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[6] Columbia's responses to Staff's Fourth Request for Information (Staff's Fourth Request), Item 3 and Staff's Fifth Request for Information (Staff's Fifth Request), Item 3.

[7] Case No. 2009-00141 *Application of Columbia Gas of Kentucky, Inc., for an Adjustment in Rates* (Ky. PSC Oct. 26, 2009). Members of the collaborative are the Attorney General, CAC, and all other intervenors from Case No. 2017-00141.

[8] Prepared Direct Testimony of Herbert A. Miller, Jr. on Behalf of Columbia Gas of Kentucky, Inc. (Miller Testimony) at 6.

[9] *Id.*

[10] Seeley Testimony at 18.

utility's fixed costs over smaller sales volumes due to customers abandoning natural gas in favor of electric service.[11] Columbia Gas states that since 2002, its residential customer base has decreased, however Columbia Gas claims that since the introduction of the DSM programs in 2009, in particular, the appliance rebate programs, the number of residential customers has begun to increase and Columbia Gas believes this can be attributed to its rebate and replacement programs as these programs make gas appliances more favorable when compared to electric appliances.[12]

The CAC declared that the Low-Income Furnace Replacement Program has a positive impact on the low-income community as it allows low-income households the ability to replace an aging, non-working or inefficient furnace.[13] Over 1,000 high-efficiency natural gas furnaces have been installed in low-income households since 2010 and the CAC desires to continue to operate the Low-Income Furnace Replacement Program on behalf of Columba Gas.[14]

In response to discovery, Columbia Gas provided California Test Scores assuming zero customer retentions.[15] The results of these tests are as follows:

	Audit Program	High-Efficiency Appliance Rebate Program	Low-Income High-Efficiency Furnace Rebate Program	All Programs
Participant Test	1.61	0.73	1.34	0.95

[11] *Id.*, at 19.

[12] *Id.*, at 20–22.

[13] Direct Testimony of Malcolm J. Ratchford on behalf of Community Action Council for Lexington-Fayette, Bourbon, Harrison, and Nicholas Counties, Inc. at 5.

[14] Id., at 5–6.

[15] Staff's Fifth Request, Item 3.

Program Administrator Test	1.55	1.24	0.20	0.96
Rate Impact Measure	0.43	0.41	0.15	0.37
Total Resource Test	0.60	0.33	0.16	0.33

The Commission has traditionally evaluated DSM effectiveness by focusing on the Total Resource Cost (TRC) results. A TRC score of less than one indicates that the costs of the program outweigh the benefits. Columbia Gas states that test score results will vary depending on the assumptions made regarding the extent to which the programs change the customer's consumption patterns. Columbia Gas assumes that but for the DSM programs either 1 percent or 2 percent of DSM participants would have fuel switched and by participating in the DSM programs those customers have been retained. To reflect the assumed customer retention, Columbia Gas proposes using two benefit-cost analyses. One analysis is based on retaining an assumed 1 percent of DSM participants who would have switched to an alternative energy source had the programs not been in effect over the 20-year analysis period. The other analysis is based on retaining an assumed 2 percent of DSM participants.[16] Columbia Gas notes that it does not believe that zeroing out the assumed customer retentions will provide a reasonable result and with either customer retention assumption, the TRC scores are greater than one.[17]

The Manual notes some utility programs include reference to load retention, and that the effect of such programs is identical to a fuel substitution program and states that

[16] Columbia's Response to Staff's First Request for Information, Item 1.

[17] Staff's Fifth Request, Item 3.

the equations and guidelines included in the manual to accommodate fuel substitution can also handle such load retention.[18] The TRC portion of the Manual states, "[f]or fuel substitution programs, benefits include the avoided device costs and avoided supply costs for the energy, using equipment not choses by the program participant."[19] The Manual further states, "[f]or fuel substitution programs, the costs also include the increase in supply costs for the utility providing the fuel that is chosen as a result of the program."[20] Columbia Gas included the retained margin of gas sales as a benefit, but not the avoided device costs and supply costs using the equipment not chosen. In addition, the only included costs related to load retention is the gas cost. Finally, the other gas companies under Commission jurisdiction such as Atmos Energy Corporation[21] do not recognize such an assumption.

The Commission is unable to agree with Columbia Gas's assertion that the appliance rebate and replacement programs have contributed to the halting of the decline in the number of residential customers.[22] The absence of any detailed market research for verification of Columbia Gas's assertion coupled with the decline in natural gas prices since 2009 do not lend support to Columbia Gas's claim. Therefore, the Commission finds that Columbia Gas's assumption of customer retention is unreasonable and should not be included in the benefit-cost analysis.

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[18] http://www.calmac.org/events/spm_9_20_02.pdf at 3.

[19] Id., at 18.

[20] Id.

[21] For Atmos's DSM analysis, see Case No. 2017-00424, *Application of Atmos Energy Corporation to Extend Its Demand-Side Management Program, as Amended, and Cost Recovery Mechanism, as Amended for Three (3) Years* (Ky. PSC Apr. 27, 2018).

[22] Staff's Fourth Data Request, Item 5.

The Commission recognizes Columbia Gas's desire to offer DSM programs to its residential customers, but due to the relatively low market price of gas, which is the basis for the calculation of program benefits, it is difficult to justify gas DSM programs based on costs and benefits. Based on the benefit-cost results included with Columbia Gas's application, we find that all DSM programs, except for the Low-Income High-Efficiency Furnace Replacement Program, impose an unreasonable financial burden on nonparticipating customers and should be discontinued. The Commission recognizes that low-income programs provide valuable assistance to income-eligible customers by reducing their heating bills, and has consistently approved such programs despite unfavorable TRC scores. The Commission, therefore, finds that Columbia Gas should cease offering all DSM programs except its Low-Income Furnace Replacement Program until market conditions change so that the benefit-cost tests exhibit an effective benefit-cost ratio. The DSM rates approved today are designed to allow for recovery of costs of the Low-Income High-Efficiency Furnace Replacement Program, plus incentives from residential customers, if any, plus the balancing adjustments to reconcile past under/over-recoveries of program costs from both residential and commercial customers. Any future application seeking to expand Columbia Gas's DSM program offerings should be supported by detailed benefit-cost analyses along with support for the need for the proposed DSM programs. Additionally, future DSM programs should include robust targeted programs that assist participation by low-income customers.

Based upon the calculation of the per meter monthly adjustment factors for the EEC Rider as filed in Case No. 2009-00141, the Energy Efficiency Conservation Program Cost Recovery (EECPCR) component for the Low-Income High-Efficiency Furnace

Rebate Programs, is $0.21 per meter.[23] The monthly lost sales and incentive portions are both $0.00 per meter. Based on the current case filing, the balancing adjustment is $(0.17) per meter.[24] Columbia Gas will be allowed to recover any lost revenues and authorized incentives associated with any Commission-approved DSM program for up to three years. Any lost revenues that continue from past programs will be accounted for in the annual balancing adjustment filing.

SUMMARY OF FINDINGS

Having reviewed the record, and being otherwise sufficiently advised, the Commission finds that:

1. Columbia Gas's existing High-Efficiency Appliance Rebates Program and Home Energy Audits are terminated and only the Low-Income High-Efficiency Furnace Replacement Program should be continued.

2. Columbia Gas's proposed cost recovery through the EEC Rider is denied.

3. Any future DSM applications filed by Columbia shall include the information as described in the findings above.

4. The DSM rates in the Appendix to this Order are approved for final meter readings on and after November 1, 2018.

5. Within 20 days of the date of this Order, Columbia Gas shall file with this Commission, using the Commission's electronic Tariff Filing System, revised tariff sheets setting out the rates approved herein and reflecting that they were approved pursuant to this Order.

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[23] Case No. 2009-00141, *Application of Columbia Gas of Kentucky, Inc. for an Adjustment in Rates* (Ky. PSC Oct. 26, 2009), Direct Testimony of William Steven Seelye, Attachment Seelye-2, page 1 of 1.

[24] TFS 2017-00710.

IT IS THEREFORE ORDERED THAT:

1. Columbia Gas's existing High-Efficiency Appliance Rebates Program and Home Energy Audits are terminated.

2. Columbia Gas's proposed cost recovery through the EEC Rider is denied.

3. Any future DSM applications filed by Columbia Gas shall include the information as described in the findings above.

4. The DSM rates in the Appendix to this Order are approved for final meter readings for the November 2018 billing cycle.

5. Within 20 days of the date of this Order, Columbia Gas shall file with this Commission, using the Commission's electronic Tariff Filing System, revised tariff sheets setting out the rates approved herein and reflecting that they were approved pursuant to this Order.

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By the Commission

ENTERED

OCT 25 2018

KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Gwen R. Pinson

Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBUC SERVICE COMMISSION IN CASE NO. 2018-00044 DATED OCT 25 2018

The following rates and charges are prescribed for the customers in the area served by Columbia Gas of Kentucky, Inc. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of the Commission prior to the effective date of this Order.

Energy Efficiency and Conservation Rider
Energy Efficiency/Conservation Program Cost Recovery

Residential:

EECPCR	$ 0.21 per meter
EECPLS	$ 0.00 per meter
EECPI	$ 0.00 per meter
EECPBA	$(0.17) per meter
Total EECPRC	$ 0.04 per meter

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