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Director Rates & Regulatory Affairs

September 1, 2017

Via First Class Mail

Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street Harrisburg, PA 17120

RE: Columbia Gas of Pennsylvania, Inc.'s 2017 Impact Evaluation of its Universal Service and Energy Conservation Programs Submitted in Compliance with 52 Pa. Code § 62.4

Dear Ms. Chiavetta:

Consistent with the Pennsylvania Public Utility Commission's June 27, 2014 Secretarial Letter, Columbia Gas of Pennsylvania, Inc. ("Columbia") hereby submits its Impact Evaluation Report of Columbia's Universal Service and Energy Conservation Programs in accordance with the reporting requirements of 52 Pa. Code § 62.4.

Please direct any questions with regard to this filing to the undersigned by calling (724) 416-6390.

Sincerely,

Adam J. Lanier

AJL/kak Enclosure

cc: Joseph Magee, Bureau of Consumer Services (imagee in page)

Sarah Dewey, Bureau of Consumer Services (sdeveroups.gov)

Louise Fink Smith, Law Bureau (finksmith@pa.gov)



2017

An independent analysis of Universal Service Programs Prepared for Columbia Gas of Pennsylvania, Inc.

Melanie Popovich Utility Business Consultant September 1, 2017

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FOREWORD

This document provides the evaluator's perspective of the design, management and implementation improvements that are viewed as most relevant to Columbia Gas of PA Inc.'s (CPA, Columbia or the Company) management to ensure their continuing efforts toward effective and efficient Universal Service program implementation.

Columbia has implemented a myriad of impressive program improvements since their last evaluation in 2011, most of which were internally driven. These will be discussed in more detail later in the document.

Data sources for this evaluation included:

- 2015 Bureau of Consumer Services(BCS) Annual Universal Service and Conservation Report
- Departmental reports from Customer Programs, Regulatory, Customer Contact Center, and Revenue Recovery
- Ad Hoc Universal Service System data base reports
 - · Interviews of Columbia Gas supervisory and management staff
 - Interview of Dollar Energy Fund, Inc.-Customer Assistance Program (CAP) Administration and Hardship Fund
 - Interview of Essential Energy, Inc.-2017 monthly and semi-annual CAP administration third party audit results
 - Interview of Conservation Consultants, Inc.-post inspections for weatherization completions for the Low-Income Usage Reduction Program (LIURP)
 - Interview of LIURP subcontractors-Weatherization services providers (One Non-Profit and one private contractor)
 - On site interviews and assessment of Universal Service Call Group at Columbia Gas Contact Center located in Smithfield, PA
 - Reference review of third party data requests and Company response from their 2014, 2015, 2016 rate cases
 - Report on the "Universal Service Program Statement of Over-Under Collections for the Twelve Months Ended December 31, 2015, 2014, 2013," Public Utility Commission (PUC) Bureau of Audits February 14, 2017

In addition to responding to the required BCS questions for third party evaluators, the evaluation included a compliance review of the following:

- 2010 Universal Service Impact Evaluation recommendations
- 2010 BCS Recommendations from the 2010 Universal Service Impact Evaluation
- 2015-2018 Universal Service Plan.
- 2014-2016 BCS Annual Conservation and Universal Service data reports as submitted by the Company

In summary, the evaluator concludes that the Company has adhered to, and is compliant with, its Universal Service and Conservation Plan for 2015-2018 as currently filed. Columbia's Universal Service programs are well managed, with impressive attention to detail, quality control and efficiency.

The Bureau of Consumer Services (BCS) requires all third-party evaluators to address the following questions as they relate to the effectiveness and efficiency of the Company's Universal Service programs.

1. Is the appropriate population being served?

Page	Source
18	Needs Assessment

2. What is the customer distribution by CAP Payment Plan? Payment plans are defined at 52 PA Code §69.265(2) of the CAP Policy Statement.

Source
CAP Payment Plans

Generally, do participants' energy burdens comply with the CAP Policy Statement? Energy burden is defined as the percentage of household income spent on energy services.

31 CAP Payment Plans	Page	Source
Di dymant iano	31	CAP Payment Plans

4. What are the CAP retention rates? Why do customers leave CAP?

Page	Source
34-35	CAP Retention
36-39	CAP Default

5. Is there an effective link between participation in CAP and participation in energy assistance programs (LIHEAP, Hardship Funds, and other grants)?

Page	Source
50	CAP Linkages

6. How effective are CAP control features as defined in 52 PA Code §69.265(3) of the CAP Policy Statement at limiting program costs?

Page	Source
22-23,48	CAP Controls

7. How effective is the CAP and LIURP link? Is the Company's procedure for dealing with excessively high usage effective? If not, how can it be improved?

Page	Source
49	CAP Linkages
22	REEP

8. Has collection on missed CAP payments been timely? Has the Company followed its own default procedures in its commission approved Universal Service Plan for CAP customers?

Page	Source	
37,38	CAP Default	

For the most recent 12-month period provide findings for the following Data Requests:

Number of CAP accounts that have missed 3 or fewer payments

Number of CAP accounts that have missed 4-6 payments

Number of CAP accounts that have missed 7-12 payments

Number of CAP accounts that have missed more than 12 payments

9. Does participation in Universal Service Programs decrease service terminations?

Page	Source
40	CAP Terminations

10. Does participation in Universal Service Program decrease collection costs?

Page	Source
40	CAP Terminations

11. Is the CAP program effective?

Page	Source
49	CAP Analysis

12. How can Universal Service programs be more cost effective and efficient?

Page	Source
	Key
6-9	Recommendations

CAP-01 Needs Assessment

The most current US Program Needs Assessment reveals that the Company has adequately and appropriately identified the population of low-income customers eligible for program participation within the territory it serves. Outreach efforts have increased and recent CAP reconnection policies have been simplified and streamlined. However, CAP participant rates have been on a steady decline since 2009 with an overall 8-year average of 21,840 participants.

Recommended Action

The Company to continue their outreach efforts to increase customer participation levels to maintain their projected enrollment numbers of 22,000 customers annually.

CAP-02 DEF Call Volume Statistics

DEF Administration does not provide Columbia with call center statistics relevant to CAP phone calls. This is important for aligning expected performance with the internal US Call Group.

Recommended Action

DEF to provide Columbia with monthly call center statistics measuring # calls received, # calls abandoned, # calls answered within 30 seconds and average call handle time.

CAP-03 DEF Audit Action Item Documentation

Columbia verbally communicates with DEF regarding prioritized action items to be implemented in response to Essential Energy's post-audit findings, however, there is no follow-up documentation of the DEF action items nor date of resolution.

Recommended Action

The Company to assign DEF written action items to resolve prioritized post-audit findings by the date due. DEF to follow-up in written response indicating individuals/agencies involved with the resolution and date completed. Copies to be provided to Essential Energy.

CAP-04 CAP Outreach

The Company manages an impressive number of activities, training sessions, and media communications that reach diverse audiences for education and promotion of CAP to eligible customers. Although there is coordination with electric utilities to solicit CAP customers for enrollment and recertification, the process is not formalized.

Recommended Action

Company to consider formalizing coordination with electric companies to increase CAP program efficiencies

CAP-06 Enrollment by FPIG and Payment Plan

The majority of CAP participants (46%) have incomes within the 51%-100% FPIG.

Of the five CAP Payment Plan options, the majority of CAP participants (44%) are enrolled in the Percentage of Bill Plan at an average CAP payment of \$50.09. The least number of participants (5) are enrolled in the Senior CAP Plan with an average payment of \$37.20.

The Average 2016 CAP Payment for the five payment plan options is \$42.61 a 15% decrease compared to 2014 and 13% decrease compared to 2015.

Recommended Actions

Percentage of Bill Plan

The customers' affordability is directly dependent on weather and the cost of gas. The Company to consider increasing their review of those customers enrolled in the Percentage of Bill plan from annual to semi-annual to ensure affordability.

Senior CAP

With so few participants in Senior CAP (5) the Company to consider phasing out this payment plan option in order to streamline the menu of CAP options

KEY RECOMMENDATIONS

CAP-07 Affordability

The 2016 average CAP annual income was \$14,418 or 80% of the annual FPIG of 51-100%. (Households members averaged 2.69) The average monthly CAP bill at 7% of that income was \$84 month).

While the majority of CAP customers (46%) fall within the 51-100% of FPLG for all payment options, customers within the 0-50% income seem the most likely to exceed the PUC energy burden targets.

Recommended Action

Assess the number of CAP customers within the 0-50% of FPGL who are still experiencing unaffordable energy bills (>than the average of \$52.76). Those customers experiencing excessive shortfall should be targeted for LIURP and/or REEP.

CAP-08 Percentage of Bill Paid

On average, CAP customers pay full and on time 6 out of 12 payments on an annual basis or 50% of the time.

CAP percentage of bill paid has declined during the most current three- year program period, from a high of 82% of bill paid in 2015 to 75% of bill paid in 2016.

Recommended Action

Provide an analysis of payment frequency by CAP payment option to further identify probable causes of payment decline including affordability

CAP-11 CAP Removals

'Failed to Recertify' was one of the top reasons that customers were removed from CAP in 2016. Approximately 11% (2,435) of the total CAP participants year- end December were removed for failure to recertify income.

Recommended Action

Provide DEF, the CAP Administrator, with real time information electronically on CAP customers due for recertification.

Include reminder phone calls 30 days prior to the due date to DEF's recertification workflow and establish recertification improvement goals.

CAP-13 Default CAP Balances

The Company has designed a CAP process for customers who default from CAP and retain gas service that balances customer accounts as though the customer had remained on CAP throughout. This process encourages year-round participation and avoids seasonal fluctuations in CAP participation. Currently there is no time limit imposed upon the customer as to the length of time they can remain out of CAP and still get reinstated.

Recommended Action

The Company should evaluate the process related to CAP reinstatement as to the allowable length of time a customer can remain out of CAP and still be reinstated.

The evaluator suggests a maximum of a four-year stay-out as it aligns with the Company's collection policy. According to the policy, balances older than four years cannot be collected as per Chapter 56.35

CAP-18 Avg. Arrearage Forgiveness

The Company's Arrearage Forgiveness component benefited 56% of the total customers enrolled in CAP year end December 2016.

Arrearage forgiveness costs in 2016 were at their lowest at \$313,110 or \$27.25 per customer compared to the most recent four-year period, while the number of customers receiving those benefits was at its highest at 11,489 customers during the same period. The Company cited warmer than normal temperatures and lower gas costs during the 2015-2016 heating season as the reason for the fluctuation.

Compared to 2015, the Company saw an increase of 1,925 customers receiving benefits but a 69% reduction of arrearage forgiveness costs.

Recommended Action

Company to perform an analysis to determine if the decline in overall arrearage forgiveness costs are in direct proportion to lower pre-CAP arrears upon initial enrollment.

KEY RECOMMENDATIONS

CAP-23 CAP Customers Receiving LIHEAP

Approximately 50% of those CAP customers eligible for LIHEAP actually applied for and received LIHEAP in 2016. While LIHEAP outreach efforts continue to be prioritized, the Company has yet to realize results which might improve these percentages. However, some percentage of customers may have applied for LIHEAP but assigned their grant to their electric utility.

Recommended Action

The Company to consider surveying CAP customers who did not receive LIHEAP in 2016 to ascertain reason(s) for not applying.

LIURP-02 Post Inspection Emergencies

Post Inspection audits revealed that when homes were inspected, some of the households had small gas leaks. Inspectors felt this could have been an oversight of the HVAC contractor during the initial customer visit. Or that the leaks had newly occurred from the time of the audit to the post inspection.

Recommended Action

The Company has already taken action to reduce the lag time between the audit and post inspection visit. Currently, the HVAC contractor checks for gas leaks during the furnace clean and tunes. However, the evaluator suggests that whenever repairs are made to the house or heating equipment that the house be checked again for any disruption in gas pipe which may result in small leaks.

LIURP-03 LIURP Demographics

The Company prioritizes high usage CAP customers for LIURP with a reported 78.6% or 405 CAP customers receiving weatherization services in 2016.

The Company began prioritizing CAP customers with CAP Credits exceeding \$1,000 as potential LIURP participants in 2017 regardless of the 170 Therm usage threshold criteria.

Recommended Action

Company to measure the impact of LIURP on both CAP Credits and usage on these customers as a sub set of LIURP.

LIURP-04 De Facto Heat Customers

Customers who might otherwise be eligible for LIURP except for the usage and 12-month history criteria, may be left out of receiving critical services due to non-working furnaces needing repair or replacement.

Since LIURP is a 'savings driven' program focusing on usage reduction, it disallows these vulnerable customers

to participate.

Recommended Action

The Company to consider the feasibility of a joint gas and electric utility pilot within overlapping service areas to target 'de facto' heat customers who may have received LIURP measures but have not benefited from usage reduction from their heat source.

These customers would be excluded from the expected usage reduction evaluation associated with a savingsdriven program, but treated as a sub-set.

LIURP-05 Landlord Legal Contract

The language in Columbia's legal contract for LIURP is very restrictive may be a barrier to landlord participation with the program.

Recommended Action

Eliminate the restrictive language in the landlord LIURP contract.

KEY RECOMMENDATIONS

LIURP-08 Costs vs. Savings Summary

Overall, higher LIURP costs equate to higher average savings. However, when segmented by contractor, the savings are not consistent among all contractors.

Recommended Action

The Company to continue to monitor individual contractors to ensure their LIURP expenditures are warranted and meet or exceed the average savings goal of the program.

LIURP-10 Non-Savers Survey

A recently completed 2017 survey of 72 identified non-savers in LIURP revealed that 39% or 28 customers used a source of supplemental heat prior to LIURP and another eight (8) customers had broken heating systems in the pre-period causing their usage to increase significantly. An additional two (2) households experienced gas or hot water leaks during the post period. All of these were legitimate reasons for usage increases

Of significance were 23 jobs identified that should have not been weatherized with LIURP dollars but were remediated for health and safety reasons using those dollars.

Recommended Action

Company to review with contractors when to walk away from jobs that clearly will not result in usage reduction and when to refer eligible jobs to health and safety equipment repair/replacement programs.

DEF-01 Funding Mechanisms

The Company's agreement to fund DEF (\$375,000) through pipeline penalty credits will most likely deplete the credits by 2018.

Recommended Action

The Company to explore and implement efforts to identify funding mechanisms for DEF grantmaking beyond 2019.

CAP-05 Enrollment

- CAP enrollment numbers and CAP participation rates have remained consistent over the most recent three-year program period (2014,2015,2016).
- CAP enrollment numbers average 20,642 CAP participants annually within the last three years. CAP
 participation rates remain at 30% of the Company's identified confirmed low-Income population
 (68,391).

CAP-09 LIHEAP Impact on Missed Payments

- Those customers without LIHEAP had fewer missed payments in the 'zero to 3 missed payment' category compared with customers receiving LIHEAP.
- The Company maintains that with the full amount of LIHEAP grants received on accounts, customers
 may go several months without being required to make a payment. Once the grant is exhausted,
 customers do not easily get back into the rhythm of making regular payments.

CAP-10 CAP Retention

- As of year-end December 2016, there were 25% (5,007) of CAP customers who maintained continuous
 participation in CAP for 5 years or more and an additional 21% (4,235) for 3-5 years since their
 enrollment date.
- Customers within the 51%-100% of FPIG remain in CAP the longest at 55.08 months across all CAP
 payment options. The average length of time customers remain on CAP is 53 months across all FPLG
 income tiers.

CAP-12 CAP Non-Pay Removals

- There were 707 customers removed from CAP for non-pay in 2016.
 This number equates to approximately 034% of the total CAP number of participants for that year.
- Most of the non-pay removals (76%) were within 0-50% and 51%-100% of the FPIG.

CAP-14 Collection Activity & Cost Savings

- For 202 customers selected in a sample study, the measured results for collection activities comparing Pre-CAP to Post-CAP payment behavior and collection activities were as follows:
- Payments and Revenues
 Post-CAP customers made 274 more payments due to affordable monthly CAP payments, however those lower payments resulted in a decrease of \$84,979 in billed revenue; LIHEAP grants increased by \$11,420.

Savings-Total of \$117 - Very little impact on collection costs

147 fewer termination notices were sent with a cost savings of \$75; 94 fewer telephone attempts were made at a cost savings of \$28; there was one less termination at a cost savings of \$14.

CAP-15 CAP Recertification

Of the 8,721 customers required to recertify, 2,435 or 28% did not recertify. This continues to be an
ongoing issue. Although the Company sends reminder letters to customers 30 days prior to their
deadline there was little follow-up by the Administrator with making reminder phone calls.

CAP-16 CAP Costs

- In 2016, the average CAP costs per CAP enrolled customer was \$663.80, significantly lower than the
 previous year of \$855.74. This is primarily due to a 69% reduction in arrearage forgiveness costs.
- CAP Credits continue to comprise the greatest percentage (90%) of total Gross CAP Costs.

CAP-17 Avg. Pre-CAP Arrears

- CAP customers within Option 2 (Average Bill Plan) had the highest average pre-CAP arears at \$752 compared to the other four option plans in 2016.
- The number of CAP customers who had zero arrears upon enrollment was at an all-time high of 258 customers

CAP-19 Average CAP Credits

- The average annual CAP Credit for customers active in CAP as of December was \$598, a decrease of 21% (\$160) compared to \$758 in 2015.
- Another calculation of the number of customers actually receiving CAP credits shows 16,910 customers receiving an average CAP credit of \$722 a significant decrease of 30% (\$311) compared to \$1,033 in 2015.
- The number of customers receiving over \$1,000 in CAP Credits significantly decreased from 2,380 customers in 2015 to 1,201 customers in 2016, approximately a 50% decrease.
- There were 792 customers receiving zero CAP Credits, an increase of 438 customers from the previous year in 2015.
- Warmer weather, lower gas costs and lower arrearage forgiveness costs attribute to these decreases.

CAP-20 Administrative Costs

- CAP administrative costs have remained consistent at 6% of the Company's total CAP costs throughout the last three program years 2014-2016.
- Columbia has one of the lowest administrative costs compared to the other Pa natural gas distribution companies. This is due in part to the cost savings gained by the efficient electronic transfer of prescreen customer data by both the Company and CAP screening agencies into the Administrator's OSCAR system.

CAP-21 Aggregation Savings

 The Aggregation Model has realized an impressive cumulative savings for CAP customers of \$11,640,529 from its inception in July 2011 through December 2016. This model proved to be a successful alternative to traditional CHOICE and served to reduce overall CAP costs.

CAP-22 CAP Controls

- The Company is in compliance with all of the CAP control features as described in their most recently filed 2015-2018 Universal Service Plan. The remaining control features have already been detailed in the section "CAP Description".
- The evaluator concludes that the Company's CAP is well managed with adequate controls put into place for limiting program costs

LIURP-01 Quality Assurance

- The Company has taken extraordinary steps in ensuring quality and consistency with its LIURP implementation. Columbia's LIURP process and procedures are well written and easily understood.
- The new data base, Vision, is exceptional in tracking LIURP workflow and is regarded as a useful tool
 by both the internal and external LIURP team. Impressive!

LIURP-06 Costs vs Savings 2010

 In 2010, The Company experienced a 23% savings on average with some contractors experiencing as high as 29%.

LIURP-07 Costs vs Savings 2011

 In 2011 the LIURP program achieved an overalls savings of 24% on average with one contractor realizing more than 30% savings.

LIURP-09 Savers vs. Non-Savers 2010-2011

Savers

- 2010
 - Of the 495 completions, 92% (452) of customers realized annual average savings of 40 Mcf or 23% (12 months post weatherization). The majority of savers (336) were within the 51-100% and 101-150% of income levels.
- 2011

Of the 524 completions, 88% (459) of customers realized annual average savings of 37 Mcf or 24%. The majority of savers (373) were within the 51-100% and 101-150% of income levels.

Non-Savers

2010

Of the 495 completions, .08% or 37 customers were non-savers showing increases in usage averaging ,07% (12 months post weatherization). The majority of non-savers (29) were within the 51-100% and 101-150% income levels.

2011

 Of the 524 completions, 12% or 60 customers were non-savers showing increases in annual usage averaging 15% (12 months post weatherization). The majority of non-savers (42) were within the 51-100% and 101-150% of income levels.

Zero Changes in Usage

- 2010
 - Of the 495 completions, .01% or 6 customers showed zero change in consumption 12 months post weatherization. All of this group fell within the 51-100% and 101-150% of income levels.
- Of the 524 completions, .008% or 4 customers showed zero change in consumption 12 months post weatherization. All 4 fell within the 0-50% of income levels.

LIURP-11 LIURP Impacts

- CAP customers who receive LIURP saw a greater decrease in the average bill reduction and shortfall
 compared to CAP customers not receiving weatherization services. Although not weather normalized,
 comparing the two groups during the same time frame does demonstrate impacts of the LIURP.
- Non-CAP customers receiving LIURP in 2014 realized a 31% decrease in arrears 12 months post weatherization

LIURP-12 LIURP Improvements

- The Company has consistently and proactively implemented changes to LIURP to increase efficiency and effectiveness.
- Notable is the Contractor Corner website for LIURP contractors only for access to forms, processes, procedures; implementation of a contract management database, Vision, to more efficiently manage LIURP workflow, contractors, and customer data, and implementation of more creative ways to solicit landlord participation with rental properties.

CARES-01 LIHEAP Grants

In 2016, the number of CARES participants increased by 16 customers over the previous year, resulting
in increased payments of \$3,927 and increased LIHEAP grants of \$1,194. CRISIS grants decreased by
\$1,143.

LIHEAP- 01 LIHEAP Trends 2015/2016

- Within the last four years, the Company has experienced a decrease of 16% (3,727) in the number of
 customers receiving a LIHEAP Cash grant. With fewer LIHEAP Cash recipients, the average grant
 amount of \$308 in 2015/2016 has increased by \$94 compared to the previous year.
- The number of customers receiving a LIHEAP Crisis grant has decreased by .05% (287). The average Crisis grant has decreased slightly by \$33.

LIHEAP 02 LIHEAP Impact on CAP Customers

- Since 2010, the Company began posting LIHEAP as a customer payment rather than to reduce shortfall
 when CAP customers received a LIHEAP grant. A formula proposed by OCA initiated a new component
 of CAP called CAP Plus, to reduce the impact of this change to non-CAP ratepayers.
- The 'plus' amount currently is an additional \$3, a significant decrease by 82% or \$14 since 2010, resulting in lower monthly customer CAP payments.

DEF-02 Company Fundraising

- The Company ranks third highest in its contribution per customer revenues at 0.39 compared with 12 PA gas and electric utilities in 2015.
- They also are one of two companies in the state who offer electronic options for customers to donate to DEF and one of two companies who utilize social media for promoting DEF events and fundraisers.

DEF-03 DEF Grants

The average number of customers as well as the average grant amount has decreased over the past four
year period. The Company reports that this decrease is attributable to customers who are in Level 1 who
have never been on CAP and are not required to apply for DEF. More dollars are left for those customers
who have no other avenues for funding.

COMPANY DESCRIPTION

Columbia Gas Company of Pennsylvania, Inc. serves approximately 426,000 residential, commercial, and industrial customers throughout 26 counties in Pennsylvania, primarily in the western and central part of the state. Columbia's headquarters are located in Canonsburg, Pennsylvania.

Of the 394,209 residential customers the Company serves, 17.4% or 68,391 residential customers were identified on Columbia's Distribution Information System (DIS) as confirmed low income customers. ¹ By definition, all customers who met the 150% or less of the Federal Poverty Level Guidelines (FPIG) as shown in their financial summaries were included in the confirmed low-income group.

Additional criteria for the identification process included the following:

- All Income Level 1 customers who have had payment agreements
- All customers that have received the Low-Income Usage Reduction Program (LIURP); the Customer Assistance Program (CAP); the Low-Income Home Energy Assistance Program (LIHEAP); Hardship Funds; or other energy assistance programs
- All customers who self-declare that they meet the income criteria but who were not on payment plans

CAP has been in existence for 25 years, evolving from a 1992 pilot of 1,000 customers into the current fully implemented program of 20,405 customers in 2016.

LIURP was first implemented in 1988 and since then, approximately 8,000 homes weatherized with consumption savings averaging 21-24% annually.

CARES, as a short-term program for payment troubled customers, was implemented in 1986 with over 45,000 customers receiving assistance through resource referrals and consumer education to date.

^{1 2016} BCS Universal Service Programs & Collection Performance Report

UNIVERSAL SERVICE TEAM

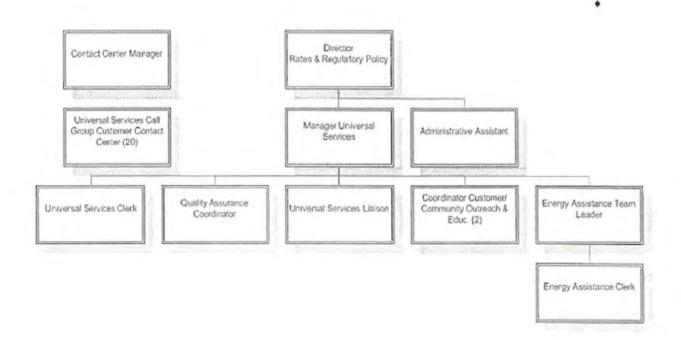
Columbia's Universal Service Team includes internal staff reporting to the Director of Rates and Regulatory Affairs and external subcontractors as indicated in Tables 1 and 2 below:

Table 1 Universal Service Staff Internal

Universal Service Position	Responsibility
Manager Universal Services (Deb Davis)	 Manages oversight of Company's Universal Service programs to ensure regulatory compliance and alignment with revenue requirements
Weatherization Specialist (Jacqueline Martin)	 Implements referrals, pre-screening and invoicing of all weatherization work Maintains accurate and complete files for all LIURP customers
Quality Assurance Coordinator (Julie Wilson)	 Implements all LIURP quality assurance programs to ensure efficient and effective implementation
Coordinator Outreach Education (2) (Elizabeth Focer-Western PA) (Tammy Ravier-Central PA)	 Outreach coordination of all programs CARES; LIHEAP; Dollar Energy Fund for Western and Central PA. and vulnerable CAP customers
Columbia Customer Care Center Location Universal Service Coordinator (Eva Cipriani)	 Coordination of LIHEAP, Fuel Fund, and agencies for customer grants and applications; accounting support for CAP and other Universal Service Programs
Team Leader Energy Assistance (Carolina Hunter)	 Supervises the LIHEAP hotline; daily compliance of LIHEAP vendor agreements, reconciliation of LIHEAP receipts
Energy Assistance Clerk (Cheryl Peterman)	 LIHEAP hotline response, customer payment postings and customer inquiry response
Universal Service Call Group Reps (20) Team Leaders (2)	 Low Income program information, referral and enrollment

Figure 1
CPA Universal Service Organization Chart
2017

Columbia Gas Universal Services Org.



External Partners

Columbia utilizes Community Based Organizations (CBOs) for assistance in the administration of its Universal Service Programs.

CAP

Dollar Energy Fund (DEF) is the central administrator for CAP. They handle income verification, application processing, data entry and training. In addition, DEF subcontracts with 46 local Community Based Organizations (CBOs) to take applications for vulnerable customers, customers without service, and other customers who prefer a face to face application appointments. All other applications are taken by phone by DEF.

Hardship Fund

DEF contracts with 164 local CBOs throughout Columbia's service territory to take 100% of the applications for the Hardship Fund. The applications are then sent to DEF's central office for verification and processing.

LIURP

A combination of private agencies and local CBOs provide LIURP administrative services and/or implementation measures as follows:

- Weatherization measure installations-5 private companies and 6 CBOs
- Post inspections-1 non-profit; 2 private companies

Table 2 Universal Service Partners External

Contractor	Responsibility
Dollar Energy Fund, Inc.	Outreach and intake administration for CAP, Fuel Funds and agency training
Dollar Energy Fund Screening Agencies (36-CAP) (164 Dollar Energy Fund)	On site income verification and applications for CAP, Hardship Funds, LIHEAP
Essential Energy, Inc. (Private)	Quality Assurance-CAP Administration
Conservation Consultants, Inc. (Non-Profit) Western PA	LIURP-Energy efficiency education/post inspections
Pure Energy, Inc. (Private) Central PA	LIURP-Energy efficiency education/post inspections
Private Weatherization Contractors (5) CBO Contractors (6)	LIURP weatherization service providers, customer communication and data tracking

NEEDS ASSESSMENT

Columbia references two sources utilized to complete the needs assessment for Universal Service Programs. The first is the most current, 2016 Federal Census Data. The second is Columbia's Distribution Information System (DIS). Six criteria to help define and illustrate the content expected for the needs assessment were developed by the Bureau of Consumer Services (BCS).² All of the criteria were compared and utilized to establish the Company's best estimated averages for program planning purposes including enrollment estimates and program costs.

- 1. Identified Low -Income Customers (68,391)3
 - Columbia identified potential CAP customers by reviewing customers who have continued to meet certain criteria for a twelve-month period.

 These included: all accounts that have received LIURP, CAP, Low Income Home Energy Assistance Program (LIHEAP) or other agency assistance programs including Hardship Funds; all accounts whose financial summaries show incomes at or below 150% of FPIG.
- 2. Estimated Low-Income Customers (98,375)

Updated federal census data is used to estimate the number of low income customers that Columbia serves. Table 3 references the number of households that it serves and equates that to a percentage (17.67%) compared to the total number of households within each county. The census data indicates that there are 431,333 low-income households within the counties Columbia serves. Applying the 17.67% results is an estimated 98,375 low-income Columbia households.

- 3. The Number of Identified Payment-Troubled, Low-income Customers (12,294) Payment troubled is defined as a household that has failed to maintain one or more payment arrangements in a one-year period.⁴ Columbia utilized data from their DIS system to review confirmed low- income accounts that were in arrears on payment agreements and not on payment agreements. They then took the average monthly of both to arrive at the identified payment-troubled total of 12,294.
- 4. Estimates of Potentially Payment-Troubled, Low-Income customers
 Next, Columbia compared the data obtained from its customer information system
 (DIS) to census data. The 2016 system number was 68,391 customers as compared
 to census data of 98,375. The census data suggests that Columbia may have an
 additional potential 29,984 payment troubled, low-income customers who are not
 identified on Columbia's DIS system. However, this does not mean that all of these
 customers require CAP.

4 "Payment Troubled" as defined by 52 Pa. Code §54.72, §62.2, and §69.262

² BCS Needs Assessment Proposal May 9, 2001

^{3 2016} Universal Service Reporting Requirements Line 6 as of December 2016

Table 3
CPA Low Income Customer Estimates⁵

	В	С	D	E	F
County	2016 CPA Customers	2012 Census Household	2016 CPA % Customers	2012 Census Low-Income	2016 CPA Low-Income
Adams	13,469	37,829	35.60%	8,501	3,027
Allegheny	98,994	525,776	18.83%	133,670	25,168
Armstrong	876	28,557	3.07%	8,376	257
Beaver	34,730	70,853	49.02%	19,128	9,376
Bedford	11	20,065	0.05%	6,608	4
Butler	8,937	73,503	12.16%	15,473	1,881
Centre	11,622	57,447	20.23%	19,759	3,997
Clarion	3,553	15,872	22.39%	5,869	1,314
Elk	30	13,212	0.23%	2,824	6
Fayette	22,146	53,842	41.13%	20,392	8,388
Franklin	4,472	58,244	7.68%	15,053	1,156
Fulton	3	5,659	0.05%	1,225	1
Greene	2,703	14,478	18.67%	4,366	815
Indiana	557	34,162	1.63%	12,699	207
Jefferson	365	18,661	1.96%	6,469	127
Lawrence	18,087	87,397	20.70%	11,698	2,421
McKean	3,181	17,465	18.21%	5,967	1,087
Mercer	29	45,924	0.06%	14,969	9
Somerset	4,595	29,6746	15.45%	9,077	1,402
Venango	682	22,429	3.04%	7,761	236
Warren	2,352	17,053	13.79%	5,169	713
Washington	41,505	83,615	49.64%	19,671	9,764
Westmoreland	20,536	151,279	13.57%	38,247	5,192
York	94,978	166,924	56.90%	38,362	21,828
			17.67%	431,333	98,375

Column B- Columbia Customer Count-Number of households per county served by Columbia Column C-Census Household-Number of households per county identified by census data Column D-Percent Customers Columbia-Percent of total county households served by Columbia (A/B) Column E-Census Household Low-Income-Number of low-income households per county identified by census data Column F-Low-Income Columbia-estimated number of low-income households per county served by Columbia (CxD)

⁵ CPA BCS Data Request

Although the Company's outreach efforts have remained steady or increased over the years, the CAP participant rate continues to decline. While the Company has not undertaken a formal analysis to determine why CAP participation has declined since 2009, Columbia suggests that a possible contributor is the increased funding made available for the Hardship Fund in 2010-2014 thus eliminating the need for CAP.

In addition to increased outreach, the Company recently implemented a less stringent reconnection policy which simplifies the process for customers to reenter CAP.

Table 4 Actual CAP Participants⁶

	2009	2010	2011	2012	2013	2014	2015	2016
CAP	25,201	22,606	22,314	20,026	22,203	20,589	21,274	20,405

Finding CAP-01 Needs Assessment

The most current US Program Needs Assessment reveals that the Company has adequately and appropriately identified the population of low-income customers eligible for program participation within the territory it serves. Outreach efforts have increased and recent CAP reconnection policies have been simplified and streamlined.

However, CAP participant rates have been on a steady decline since 2009 with an overall 8-year average of 21,840 participants.

Recommended Action

The Company to continue their outreach efforts to increase customer participation levels to maintain their projected enrollment numbers of 22,000 customers annually.

⁶ CPA Response to OCA 4-037 Data Request R-2016-2529660

CAP PROGRAM DESCRIPTION

The Company's CAP was created in 1992 as a non-traditional approach to assist long-term, payment troubled customers. The program offered affordable payment plan options towards monthly bill amounts in combination with a plan to reduce past arrearages.

Throughout the past years 25 years, CAP has successfully offered these affordable payment plans to an approximate average of 23,000 customers annually. To date, there is no limit on the number of customers the Company will enroll into the program. Currently, the Company reports a total of 20,405 customers active in CAP as of year-end December 2016.⁷

Columbia's CAP offers discounted rates to payment-troubled, residential heating customers whose household incomes are at or less than 150% of the Federal Poverty Income Guidelines (FPIG). Columbia defines a payment troubled customer as someone who has received a termination notice, broken payment agreement within the past 12 months, or has been identified as financially vulnerable because of a low credit score, or reports being enrolled in an electric utility's CAP. In addition to reduced utility bills, CAP customers also receive the opportunity to have their pre-program arrearages completely forgiven within 36 months of entering the program.

CAP Objectives

- · Provide affordable bill payment options
- · Reduce credit and collection costs
- · Reduce arrearage write-offs
- Increase frequency of customer on time payments
- Encourage energy efficiency
- Minimize bill shortfall (CAP Credits) through conservation and energy measures

Columbia calculates a customer's CAP bill utilizing five different payment options, selecting the option closest the customer's ability to pay⁸.

Table 5
CAP Payment Plan Options

Option	Payment Plan				
#1	Percentage of Income 0-110% FPL=7% 110-150% FPL=9%				
#2	Average of Payments Average of payments 12 months prior to joining CAP Only available for customers with 6 months of uninterrupted service				
#3	Percentage of Bill Flat rate adjusted annually of 50% of bill				
#4	Minimum Payment (\$25)*				
#5	Senior CAP Flat rate of 75% of budget billing for customers over 60 years of age with no arrears or payment plan default				

⁷ 2016 BCS Universal Service Programs and Collections Performance Report Requirement

⁸ The option selected should never be less than the average amount the customer has been paying during the previous 12-month period.

Minimum Payment CAP Bill vs. Budget Bill

The minimum monthly payment in CAP is \$25. The CAP bill should never exceed the budget bill amount. If an active CAP customer's bill is higher than budget billing, the account is reviewed to determine whether monthly CAP payments can be lowered or if the customer should be removed from CAP.

CAP Payment Charges

All payment options include two additional charges:

- 1. \$5 monthly co-payment applied to pre-program arrears (if applicable)
- 2. CAP Plus amount

The monthly CAP Plus calculation is as follows:

- Divide the total LIHEAP cash dollars received on CAP accounts in the prior year's heating season by the number of current CAP customers
- The monthly "plus amount" is 1/12th of the final total
- This amount is recalculated annually beginning with the October billing cycle⁹

CAP Controls

Excessive Usage

CAP customers whose average winter consumption exceeds 170 Therms are prioritized for the Low- Income Usage Reduction Program (LIURP).

Excessive Shortfall¹⁰ (CAP Credits)

If a customer's shortfall continues to exceed \$1,000 annually post LIURP services, the customer

- Will be invited to participate in the Remedial Energy Efficiency Program (REEP). A third party provides individualized energy education and on-going feedback on household usage
- May experience a raise in their monthly CAP payment amount
- May be removed from the program

Default for Non-Pay

Termination procedures for CAP customers are initiated after two missed payments. If the customer fails to make up the missed CAP payments within ten (10 days) of the date of the termination notice, Columbia will attempt to terminate service. However, termination may be delayed due to extenuating circumstances.

CAP customers do not pay security deposits or re-connect fees for restoration of service.

¹⁰ Shortfall (also known as CAP credits) is the difference between the actual cost of gas service and the discounted amount that a CAP customer is billed.

⁹ The amount of the CAP Plus charges change based on federal LIHEAP funding each year, (e.g. 2013-2014 the CAP Plus charge was \$9 monthly; 2014-2015 the CAP charge was \$6 monthly).

CAP PROGRAM DESCRIPTION

CAP Controls Continued

CAP Recertification

CAP customers are required to recertify annually with the following exceptions:

- · Receipt of a LIHEAP grant
- · Receipt of a Dollar Energy Fund (DEF) grant
- Enrollee in another Columbia Universal Service Program within the past 12 months
- CAP customers age 60 or older who receive social security or disability benefits (only need to recertify every other year)

The Company sends a recertification notification letter 30 days prior to the anniversary date of the customer's enrollment date into CAP. If the customer does not recertify within 60 days of the letter, they may be removed from CAP. As a final step prior to removing a customer, the Company will attempt to re-verify income and household information through the customer's electric utility CAP program if the customer is a participant.¹¹

Zero Income CAP customers reporting zero income are required to re-verify their income after three months and every three months thereafter as long as they report income as zero. They are now required to sign a 'Zero Income Form' as documentation each time they reverify.

Self-Removal from CAP

If requesting removal from CAP, the customer must sign a confirmation form indicating their understanding of the benefits they receive from the program. The household may not reenroll for a period of one year after removal. This is to prevent constant churn with removal in the summer months when customer bills are lower than their CAP bill amount.

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Dollar Energy Fund administers both Columbia and FirstEnergy's CAP programs where income and household information is collected. Information provided for FirstEnergy may be used by DEF to re-certify a Columbia customer. This is only used by Columbia as a final step prior to program removal.

How are Customers Referred, Prescreened and Enrolled into CAP?

Columbia uniquely organized their Customer Care Center to include highly trained Customer Service Representatives (CSRs) who became the Universal Services Call Group (US Call Group or Call Group). The Company has continued to maintain the integrity of this team. Today, the US Call Group is comprised of 20 agents (17 onsite; 3 in home) who handle all low-income customer calls and pre-screens for CAP, CARES, LIURP, LIHEAP, and Hardship Fund eligibility. Within the Call Group, there are four representatives serving as Senior Reps and one Team Leader who receives escalated customer calls.

The emphasis for the US Call Group is on first call resolution and zero calls in queue.

Referrals

Low income customers are referred to the US Call Group as follows:

- As customers give their financial information to a Customer Service Representative (CSR) over the phone, the representative ascertains that the customer is low income and payment troubled and transfers the call to the US Call Group
- As customers enter their account number into the Interactive Voice Response Unit (IVRU) there is system recognition and the call routes directly to the US Call group
- Agency referrals route through the Company's toll free Universal Service line

CAP Prescreening

The US Call Group next utilizes the Call Aid feature on the Company's Distribution Information System (DIS) to reference procedures, income guidelines and any program updates relevant to all low-income programs. See Appendix A-Call Aid Screens

The Call Group then prescreens the customer for eligibility and populates a series of custom CAP screens capturing customer demographics, income, payment history and CAP payment options. Based on this data, the system pre-selects the best payment option plan for the customer pending verification. **See Appendix B- CAP Pre-Screens**

If CAP eligible, customer data is electronically transferred to the Dollar Energy Online System for Customer Assistance Records (OSCAR). ¹² The DEF Central Office (the Central Office) as well as all participating Columbia CAP agencies are trained and have access to OSCAR. In addition to OSCAR, agency training on Columbia CAP guidelines is provided by DEF annually and more often upon request.

The US Call Group sends the OSCAR screens electronically either to the DEF Central Office or to the appropriate screening agency for customer follow-up for on-site or telephonic applications. The majority of CAP customer applications are telephonic and therefore reduce overall administrative costs.¹³

13 Telephone Interview with DEF Supervisor for Columbia CAP

¹² The OSCAR system was developed in partnership with the Company to manage, track and streamline the case management of CAP customers throughout the entire lifecycle of the CAP customer (prescreen, customer appointments, intake, enrollment, recertification, removal, and reporting).

The DEF supervisor reports that Columbia does an excellent job in sorting and routing the referrals to the appropriate agency which results in alleviating the call volume at the DEF Central Office.

14 The Central Office (comprised of one supervisor and five customer service representatives specific to Columbia CAP) or the agency schedules the telephonic customer appointment, verifies income and assists with completing the CAP application. In previous years, the DEF central office would review all CAP agency enrollment screens for accuracy. Since the advent of OSCAR and electronic transfer of pre-screen customer data, this step has been eliminated.

Quality Assurance for CAP Enrollment

The Company takes additional steps to ensure quality control for CAP administration. Here are a few observations.

Although the Company and DEF meet monthly on the status of the CAP program there is no information provided to the Company on monthly telephone statistics (i.e. # calls received, # calls abandoned, # calls answered within 30 seconds, and average call handle time). ¹⁵ For additional quality assurance, the evaluator suggests obtaining monthly DEF CAP call statistics enabling the Company to compare those with Columbia's US Call Group statistics. Performance should be tracked and aligned with the Company's internal Call Group. See statistics in Table 6 below.

Table 6
PA Universal Service Call Group
2013-June 2016¹⁶

	Offered	Handled	Abandon %	Average Speed of Answer	Service Level Within 30 sec.
2013	196,648	190,769	2.99%	37	0.639
2014	204,174	198,020	3.01%	37	0.657
2015	207,651	205,314	1.13%	14	0.865
2016	190 472	187 501	1.56%	23	0.801

PA - Universal Services Team Call Statistics

Finding CAP-02 DEF Call Volume Statistics

DEF Administration does not provide Columbia with call center statistics relevant to CAP phone calls. This is important for aligning expected performance with the internal US Call Group.

Recommended Action

DEF to provide Columbia with monthly call center statistics measuring # calls received, # calls abandoned, # calls answered within 30 seconds and average call handle time.

¹⁴Telephone Interview with DEF Supervisor for Columbia CAP

¹⁵ Interview CPA CAP Manager

¹⁶ Interview CPA Call Center Manager

CAP ENROLLMENT

Columbia employs the services of Essential Energy, a third-party contractor who performs monthly Columbia CAP quality audits at the DEF central office. The audits consist of reviewing 10% of new CAP enrollments each month checking for CAP intake documentation, appropriate selection of the CAP payment plan and support documents for income validation. In addition, Essential Energy provides a more thorough bi-annual review where the lead CAP administrator, DEF customer service representatives and a sampling of CAP intake agencies are interviewed for program consistency.¹⁷

Here are a few inconsistencies brought to DEF's attention in the most recent 2017 audit:

- Agency receipt of and/or use of CAP scripted customer talking points and newly revised CAP contract forms was inconsistent among agencies.
 Resolution: DEF to re-send appropriate forms and scripts to all agencies.
- New agencies added to Columbia CAP and/or turnover in agency staff at existing
 agencies resulted in a gap with DEF provided training.

 Resolution: DEF to assign a supervisor to specifically manage training and ensure
 agencies have the proper program materials and script on hand.

In reviewing Essential Energy's audit findings for January and June 2017, the evaluator found that CAP Administration findings were mostly positive and running fairly smoothly. However, according to Essential Energy, for those items needing addressed it appears that the Company communicates verbally to DEF regarding action items with no follow-up documentation.

Finding CAP-03 DEF Audit Action Item Documentation

Columbia verbally communicates with DEF regarding prioritized action items to be implemented in response to Essential Energy's post-audit findings, however, there is no follow-up documentation of the DEF action items nor date of resolution.

Recommended Action

The Company to assign DEF written action items to resolve prioritized post-audit findings by the date due. DEF to follow-up in written response indicating individuals/agencies involved with the resolution and date completed. Copies to be provided to Essential Energy.

¹⁷ Telephone interview with Essential Energy Columbia CAP July 27, 2017. Audit Evaluation Reports January and June 2017.

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Universal Service Program Outreach

Columbia promotes its Universal Service programs and engages in external outreach activities throughout its service territory. These include the following:

- Sponsorship and participation at Senior Fairs
- Representation on local community assistance boards and task forces
- · Participation and coordination of Be Utility Wise events
- Provision of program information on Columbia's website
- Bill inserts targeted to specific Universal Service Programs
- Customer Contact Center Referrals
- · Bi-Annual community roundtables

Specific to CAP, the Company reports the following outreach activities to encourage CAP enrollment:18

- Coordination with electric utilities to solicit CAP customers for enrollment and recertification however it is not formalized
- · Coordination with the Dollar Energy Fund Grant Program
- Limited solicitation of targeted groups including previous Dollar Energy grant customers, LIHEAP Crisis recipients, Housing Authority tenants, CAP agency staff
- Mail solicitation of targeted groups including previous and potential LIHEAP recipients and inactive account customers (Cold Weather Survey packets)
- · Annual training for:
 - Customer Contact Center Customer Service representatives
 - DEF CAP Administrator and screening agencies
 - Credit and Collections Representatives
 - Field and Construction Services personnel

Finding CAP-04 CAP Outreach

The Company manages an impressive number of activities, training sessions, and media communications that reach diverse audiences for education and promotion of CAP to eligible customers. Although there is coordination with electric utilities to solicit CAP customers for enrollment and recertification, the process is not formalized.

Recommended Action

Company to consider formalizing coordination with electric companies to increase CAP program efficiencies.

¹⁸ CPA 2015-2018 Universal Service and Conservation Plan

What is the Customer Distribution for CAP by Federal Poverty Income Guidelines?

Trends by FPIG

 Within the last three years, the majority of CAP participants (46-47%) fall into the 51%-100% of FPIG. This is consistent with other PA natural gas utility distribution company CAP statistics.¹⁹

Table 7 CAP Distribution by FPIG²⁰ 2014-2016

Year	FPIG	# CAP Participants	%
2016	0-50%	4,307	
	51%-100%	9,389	46%
	101%-150%	6,709	
1777	Total	20,405	1
2015	0-50%	4,470	
-	51%-100%	9,884	47%
	101%-150%	6,920	
	Total	21,274	
2014	0-50%	4,439	
	51%-100%	9,612	47%
	101%-150%	6,538	
	Total	20,589	

²⁰ Company provided data for 2014-2016 Universal Services Programs Report-Section Item 33-35

¹⁹ Report on 2015 Universal Service Programs & Collections Performance of the PA Electric Distribution and Natural Gas Distribution Companies Bureau of Consumer Services

What is the Customer Distribution for CAP by Payment Plan Option? Generally, do participants' Energy Burdens Comply with the CAP Policy Statement at §69.265(2) (i)-(B)?

Trends 2014-2016

- CAP Enrollment numbers during the most recent three-year period have fluctuated, first as a slight increase in 2015 and then a slight decrease in 2016. This appears to be similar with enrollments reported by the majority of PA gas utility distribution companies ²¹
- CAP participant rates remain fairly consistent at 30% (2016), 31% (2015) and 30% (2014) ²²
- The majority of 2016 CAP customers (44%) are enrolled in the Percentage of Bill plan at 50% of bill adjusted annually. Second highest enrollment is Average of Payments (35%) and third highest is Percentage of Income (15%). This pattern of enrollment option type is consistent year to year
- The average monthly CAP payment is \$42.61, a decrease of \$7.69 over the past three years

Table 8
Participation by CAP Payment Plan
2014-2016

		20	16	20	15	20	14
Option	Payment Plan	Number	Average CAP Plan	Number	Average CAP Plan	Number	Average CAP Plan
#1	Percentage of Income 0-110% FPIG=7% 110-150% FPIG=9%	2925	\$51.60	3037	\$55.61	2849	\$55.38
#2	Average of Payments Average of payments 12 months prior to joining CAP Only available for customers with 6 months of uninterrupted service	7062	\$44.55	7359	\$49.62	7605	\$52.34
#3	Percentage of Bill Flat rate adjusted annually of 50% of bill	9041	\$50.09	9089	\$59.76	9036	\$60.50
#4	Minimum Payment (\$25)	1,479	\$33.86	1315	\$33.86	1219	\$35.43
#5	Senior CAP Flat rate of 75% of budget billing for customers over 60 years of age with no arrears or payment plan default	5	\$37.20	7	\$46.00	6	\$47.83
	Total CAP Participants	20,405		20,807		20,715	
	Avg. CAP Payment		\$42.61		\$48.97		\$50.30

²¹ Report on 2015 Universal Service Programs & Collections Performance of the PA Electric Distribution and Natural Gas Distribution Companies Bureau of Consumer Services

²² Participation rates are computed by taking the Company's number of confirmed low income customers and dividing it into the number of CAP participants year end December.

Finding CAP-05 Enrollment

CAP enrollment numbers and CAP participation rates have remained consistent over the most recent three-year program period (2014,2015,2016).

CAP enrollment numbers average 20,642 CAP participants annually within the last three years. CAP participation rates remain at 30% of the Company's identified confirmed low-Income population (68,391).

Finding CAP-06 Enrollment by FPIG and Payment Plan

The majority of CAP participants (46%) have incomes within the 51%-100% FPIG.

Of the five CAP Payment Plan options, the majority of CAP participants (44%) are enrolled in the Percentage of Bill Plan at an average CAP payment of \$50.09. The least number of participants (5) are enrolled in the Senior CAP Plan with an average payment of \$37.20.

The Average 2016 CAP Payment for the five payment plan options is \$42.61 a 15% decrease compared to 2014 and 13% decrease compared to 2015.

Recommended Actions

Percentage of Bill Plan

The customers' affordability is directly dependent on weather and the cost of gas. The Company to consider increasing their review of those customers enrolled in the Percentage of Bill plan from annual to semi-annual to ensure affordability.

Senior CAP

With so few participants in Senior CAP (5) the Company to consider phasing out this payment plan option in order to streamline the menu of CAP options.

Affordability

The 2016 reported average member household for CAP is 2.69 and the average reported annual CAP income is \$14,418. To further view bill affordability, 7% and 9% of that income was calculated.

Table 9
CAP Bill Affordability by Payment Plan
2016

Annual FPIG	0-50%	51%- 100%	101%- 150%	Avg. CAP
Allowable Income for 2.69 ²³ Member Household	\$9,045	\$18,090	\$27,135	
Averaged \$14,418 ²⁴ or 80% of FPIG 51-100%		\$14,418		
Payment Options				
Percentage of Income		\$84		
Monthly @ 7% of 0-110%	\$52.76	\$105.53		054.00
Monthly @ 9% of 111-150%			\$203.51	\$51.60
Average of 12 months of Bill				\$44.55
% of Bill @ 50%				\$50.09
Minimum Bill				\$33.86
Sr. CAP @ 75% of Budget Bill				\$37.20

Finding CAP-07 Affordability

The 2016 average CAP annual income was \$14,418 or 80% of the annual FPIG of 51-100%. (Households members averaged 2.69) The average monthly CAP bill at 7% of that income was \$84 month).

While the majority of CAP customers (46%) fall within the 51-100% of FPIG for all payment options, customers within the 0-50% income seem the most likely to exceed the PUC energy burden targets.

Recommended Action

Assess the number of CAP customers within the 0-50% of FPGL who are still experiencing unaffordable energy bills (>than the average of \$52.76). Those customers experiencing excessive shortfall should be targeted for LIURP and/or REEP.

²³ 2016 Universal Service Reporting Requirements Line Items 30, 31.

²⁴ Ibid

CAP Payment Trends

In terms of payment frequency, the Company's active CAP participants during the most current three-year period end of month December have fluctuating results.

Taking the annual total amount of dollars received by CAP customers divided by the total amount billed reveals the following:²⁵

Table 10 Percentage of Bill Paid

Year	CAP Billed	CAP Paid	% Paid	# Full On- Time Pmts.	Active CAP ²⁶	Avg. # Ful Pmts.
2016	\$12,845,293	\$ 9,641,462	75%	125,133	20,405	6.1
2015	\$13,889,138	\$11,276,816	82%	134,638	21,274	6.3
2014	\$14,019,886	\$ 11,208,374	80%	122,675	20,589	6.0

The Company has no further analysis as to the breakdown of these percentages by CAP payment option to ascertain if these percentages are consistent among all types.

Finding CAP-08 Percentage of Bill Paid

On average, CAP customers pay full and on time 6 out of 12 payments on an annual basis or 50% of the time.

CAP percentage of bill paid has declined during the most current three- year program period, from a high of 82% of bill paid in 2015 to 75% of bill paid in 2016.

Recommended Action

Provide an analysis of payment frequency by CAP payment option to further identify probable causes of payment decline including affordability.

²⁵ 2014, 2015, 2016 CPA Universal Service Programs Reporting Requirements Items #43, #45, #46
²⁶ Ibid

CAP Customers with Missed Payments

The Company provided a breakdown of 2016 CAP customers during a consecutive 12-month billing period with respect to the number of missed payments throughout that period. Results were compared with CAP customers who did not receive LIHEAP with those who did.²⁷

The assumption was that for customers who receive LIHEAP the number of missed payments would be reduced significantly, since the LIHEAP payment serves as the CAP payment as long as there is a LIHEAP credit. However, LIHEAP does not cover the arrearage forgiveness or CAP Plus component of the asked to pay monthly amount.

Table 11 CAP Customers Missed Payments 2016

Number of Missed Payments	2016 Without LIHEAP	2016 With LIHEAP Counted as 1
0-3	9,893	12,095
4-6	2,703	1,539
7-12	973	535

Those customers without LIHEAP had fewer missed payments in the 'zero to 3 missed payment' category compared with customers receiving LIHEAP. However, in the two remaining categories 4-6 and 7-12 missed payments, the customers receiving LIHEAP had fewer missed payments than those not receiving LIHEAP.

The Company conjectures that since the LIHEAP grant is often posted 'in full' onto a customer account, this relieves the customer of any payment for several months or longer. This is counter to the original intent of the CAP design feature, whereby participants are expected to develop new payment behaviors of making timely and regular account payments. This situation only appears in the 'zero to 3' missed payment category and seems to reverse itself with fewer missed payments with LIHEAP in the '4-6' and '7to 12'. missed payment categories.

Finding CAP-09 LIHEAP Impact on Missed Payments

Those customers without LIHEAP had fewer missed payments in the 'zero to 3 missed payment' category compared with customers receiving LIHEAP. The Company maintains that with the full amount of LIHEAP grants received on accounts, customers may go several months without being required to make a payment. Once the grant is exhausted, customers do not easily get back into the rhythm of making regular payments.

²⁷ CPA Data Response 1- CAP-15 CAP Missed Payments

²⁸ CPA USECP Comments Docket No. M-2017-2596907 Page 11 LIHEAP Grants

What are CAP Retention Rates?

One indicator as to the success of a company's CAP is the length of continuous enrollment from their time of original enrollment to the present. Of particular significance is Columbia's CAP retention percentage for customers within the '3-5 year' and '5 years or more' categories.

A retention history of Columbia customers billed as CAP in December 2016 disaggregated by number of months of consecutive service since enrollment revealed a total of 5,007 customers enrolled in CAP with a continuous retention history of 5 years or more.²⁹ Another 21% (4,235) maintained consecutive service for 3-5 years.

Table 12

Number of CAP Customers with Consecutive Service
Enrollment thru December Year End 2016

Duration	Number of CAP Customers	Percentage
Less than 5 months	2,960	14%
6-12 months	4,178	20%
13-24 months	4,103	20%
3-5 years	4,235	21%
5 years or more	5,007	25%
TOTAL	20,483	

Average Length of Time CAP Customers Remain on CAP

Another view of CAP participation disaggregates CAP customers by FPIG income which looks at average length of time customers remain on CAP across all CAP plan options.

Table 13
Average Length of CAP Participation
By FPIG in 2015³⁰

FPIG	Number of Months	
0%-50%	52.25	
51%-100%	55.08	
101%-150%	51.61	

²⁹ CPA Data Response 1-CAP-14

³⁰ CAUSE-PA2-002 CPA Data Response R-2015

Finding CAP-10 CAP Retention

As of year-end December 2016, there were 25% (5,007) of CAP customers who maintained continuous participation in CAP for 5 years or more and an additional 21% (4,235) for 3-5 years since their enrollment date.

Customers within the 51%-100% of FPIG remain in CAP the longest at 55.08 months across all CAP payment options.

The average length of time customers remain on CAP is 53 months across all FPIG income tiers.

Why Are Customers Removed From CAP?

Despite Columbia's best efforts to maintain and/or increase CAP participation, customers leave or are dropped from CAP for various reasons.

Table 14 Total CAP Removals 2013-2016³¹

Code	Reason	2013	2014	2015	2016
201	Non- Pay	632	720	730	707
203	Failed to Recertify	1067	1359	2254	2435
204	Zero Income	1	7	0	0
206	Deceased	6	4	15	13
208	Moved/Final	1866	2265	2382	2313
210	No access to meter	0	3	0	0
212	Customer Request	31	33	34	47
213	Did not receive Wx.	12	18	16	53
214	Over Income	0	0	13	515
215	Other	482	512	687	180

Finding CAP-11 CAP Removals

'Failed to Recertify' was one of the top reasons that customers were removed from CAP in 2016. Approximately 11% (2,435) of the total CAP participants year- end December were removed for failure to recertify income.

Recommended Actions

Provide DEF, the CAP Administrator, with real time information electronically on CAP customers due for recertification.

Include reminder phone calls 30 days prior to the due date to DEF's recertification workflow and establish recertification improvement goals.

³¹ CPA Data Response 1-CAP-12

CAP Non-Payment, Self-removals, and High Consumption Explanations 32

1. Non-Payment of CAP Budgets

April 1-October 31

A CAP customer is considered in default after two missed CAP budget payments. Ten days after the missed due date, a termination notice is issued. The Company will then attempt to terminate service for non-payment but may, in its sole discretion delay termination for extenuating circumstances.

A customer may restore their service by paying all missed CAP budget payments that were the cause of the termination in addition to any missed CAP budget payments that became past due during the termination period notice.

November 1-March 31

A customer will not be removed from CAP during the winter period. Commencing April 1, the Company will issue termination notices for all missed CAP payments to CAP customers who failed to pay any or all of their CAP budget payments during the November to March period.

The following table provides a view of CAP customers removed for non-pay by FPIG. Since most customers who participate in CAP (46%) are within the 51%-100% of FPIG, it is not surprising that most of the non-pay defaults correspond to the same income range.

Table 15 CAP Non -Pay Removals by FPIG³³

Year	0-50%	51 - 100%	>100%	Totals
2016	237	297	173	707
2015	192	345	177	714
2014	226	302	178	706
2013	185	296	143	624

Finding CAP-12 CAP Non-Pay Removals

There were 707 customers removed from CAP for non-pay in 2016.

This number equates to approximately 0.34% of the total CAP number of participants for that year. Most of the non-pay removals (76%) were within 0-50% and 51%-100% of the FPIG.

³² CPA Universal Service and Conservation Plan 2015-2018

³³ CPA Data Response 1-CAP-09

2. Customer Self-Removals

A customer who requests removal from CAP is sent a letter explaining their benefits while in CAP and be required to sign their acknowledgement of such within a returned letter. Upon the Company's receipt of the executed letter, the customer is removed from CAP. The consequence of self-removal is that the customer may not re-enroll in CAP for one year from the time of self- removal.

3. Customers with High Consumptions

Customers with high consumption are automatically referred to the Company's LIURP program to receive weatherization. If a customer refuses LIURP without demonstration of a legitimate exemption, their CAP budget payment may be raised or they may be removed from the program after Company review.

How Does the Company Treat CAP Balances and Arrears for Defaulted CAP Customers but who Remain Columbia Gas Customers?

The Company designed a process for CAP defaulted customers who retain their gas service in order to simplify re-entry into CAP at any time.

CAP Balances

- The CAP balance is retained separately including CAP arrears if any
- For each non-CAP bill amount received, the CAP balance will increase by the monthly 'Asked to Pay' amount
- As customers pay each non-CAP bill or receive a LIHEAP grant, the customer's CAP balance will be reduced by that amount
- Should the customer want to reapply for CAP, they must first pay the full CAP balance, including amount accrued while a non-CAP customer

CAP Arrears

- Once the CAP balance is paid in full and the customer is re-enrolled in CAP, 1/36th of the pre-program arrearage is applied for each month the customer spent outside the program
- Any new non-CAP arrears created since CAP removal are removed and treated as customer shortfall

Finding CAP-13 Default CAP Balances

The Company has designed a CAP process for customers who default from CAP and retain gas service that balances customer accounts as though the customer had remained on CAP throughout. This process encourages year-round participation and avoids seasonal fluctuations in CAP participation.

Currently there is no time limit imposed upon the customer as to the length of time they can remain out of CAP and still get reinstated.

Recommended Action

The Company should evaluate the process related to CAP reinstatement as to the allowable length of time a customer can remain out of CAP and still be reinstated.

The evaluator suggests a maximum of a four-year stay-out as it aligns with the Company's collection policy. According to the policy, balances older than four years cannot be collected as per Chapter 56.35.

Does Participation in Universal Service Programs Decrease Service Terminations and Collections Costs?

CAP Revenue Recovery Activity

The Company's CAP revenue recovery cycle mirrors the regular cycle for residential customers except that it adds two additional steps. First, the Company sends a late payment reminder notice five days after the first missed CAP payment due date. Second, the Company prioritizes the CAP accounts for termination over non-CAP account terminations.³⁴

In order to measure the impact of CAP participation on terminations and collection costs a sample size of 202 customers with available 12 months Pre- and 12-months Post CAP payment history was analyzed for collection activity.

Table 16
CAP Collection Activity Pre-CAP vs. Post-CAP
Sample of 202 Customers
2016

	Pre-CAP	Post-CAP	+		Cost Savings
# Payments	1,890	2,164	274		
\$ of Payments	\$200,679	\$115,700		\$84,979	
# Term Notices	150	3		147	\$75
LIHEAP Grant	\$17,467	\$28,887	\$11,420		
# Phone Attempts	94	0		94	\$28
# Disconnect Orders Generated	8			8	Not available
# Shut Offs	1			- 1	\$14

Finding CAP-14 Collection Activity & Cost Savings

For 202 customers selected in a sample study, the measured results for collection activities comparing Pre-CAP to Post-CAP payment behavior and collection activities were as follows: Payments and Revenues

Post-CAP customers made 274 more payments due to affordable monthly CAP payments, however those lower payments resulted in a *decrease* of \$84,979 in billed revenue; LIHEAP grants *increased* by \$11,420

Savings-Total of \$117 - Very little impact on collection costs

147 fewer termination notices were sent with a cost savings of \$75; 94 fewer telephone attempts were made at a cost savings of \$28; there was one less termination at a cost savings of \$14

³⁴ CPA Response 1-CAP-10 CPA Regulatory and Company Shut Off Procedures for CAP

How Are Customers Re-Instated Into CAP?

There are two different procedures for re-instating customers into CAP depending whether the applicant's gas service has been terminated or gas service was retained after removal from CAP.

Table 17
CAP Reinstatement Procedures
Gas Service Terminated vs. Retained³⁵

After CAP Removal	Pay All Missed CAP Pmts. & \$5 Co- pay to Arrears	Pmts. made After CAP Removal	Unpaid Charges Incurred After Default	Without Service for 6 or more months?	Moved to New Address?	Security Deposits?	Re- Connect Fees?
Gas Service Terminated	Yes	Deducted from Program Re-Entry Amount	Treated as current bill Shortfall	Must reapply for CAP including proof of income	All procedures apply	Waived. Already paid deposits are applied to arrears prior to reenroll.	Waived
Gas Service Retained ³⁶	Yes	Deducted from Program Re-Entry Amt. Other Issues relating to CAP default must be resolved. ³⁷	Treated as current bill shortfall	N/A	All procedures apply for non-interruption of service.	N/A	N/A

37 Verification of current income, acceptance of free weatherization

³⁵ Summarized from 2015-2018 Universal Service and Energy Conservation Plan

³⁶ The pre-program arrearage will be the same at the time of reinstatement as at the time of default

Recertification of income is necessary to remain a CAP customer to ensure that only lowincome customers are enrolled. CAP customers are required to provide proof of income annually except for the following exceptions:

- Customers receiving LIHEAP, Dollar Energy, or another Columbia US program.
- CAP customers age 60 or older who receive social security or disability benefits are required to provide proof of income every other year.
- Zero income customers are required to recertify every three months of participation and are required to complete a form requiring written documentation.

Controls

Columbia issues notification letters requiring income reverification each year to customers 30 days prior to their CAP enrollment anniversary date. CAP participants are then required to mail/fax income verification to DEF (the Administrator). Once received, DEF mails a letter confirming the customer's continued participation in CAP and detailing any changes, if any, made to their required CAP payment.

Although DEF was tasked with making reminder CAP recertification customer phone calls the calls were made only as time and resources permitted.³⁸ Additionally, the Company acknowledged that the recertification information that was provided to DEF was manual and not always timely. The Company has now put in place an electronic notice on the CAP account in OSCAR when reminder customer letters are sent to improve the process.³⁹

Table 18 CAP Recertification⁴⁰ 2013-2016

	2016	2015	2014	2013
Eligible to Recertify	17,494	21,563	21,271	20,297
Re-verified via LIHEAP	8,773	13,824	10,742	9,444
Remaining required to Recertify	8,721	7,739	10,529	10,853
Deemed ineligible	512	395	308	273
Did not recertify	2,435	1,773	1,353	1,065

Finding CAP-15 CAP Recertification

Of the 8,721 customers required to recertify, 2,435 or 28% did not recertify. This continues to be an ongoing issue. Although the Company sends reminder letters to customers 30 days prior to their deadline there was little follow-up by the Administrator with making reminder phone calls.

Recommended Action-See CAP-11

³⁸ Interview DEF Supervisor

³⁹ Interview CPA CAP Manager

⁴⁰ CPA Data Response 1-CAP-15 CAP Recertification

What Are the CAP Costs and How Are They Recovered?

Universal Service costs are recovered through the Rider USP-Universal Service Plan. The Rider is applicable to all residential customers except for CAP customers and was established to recover costs related to the Company's Universal Service and Conservation programs. See Appendix C-Rider USP Universal Service Plan

The Rider USP is calculated quarterly to recover costs for the following programs: LIURP, CAP, Emergency Repair Program (ERP) and the Warm Wise® Audits and Rebates

Universal Service costs are calculated to include the projected:

- CAP Shortfall (the difference between residential RSS bill and the CAP bill)
- CAP administrative costs (application fees, DEF administration, quality assurance)
- Pre-Program arrearage to be forgiven and written off within the next 12-month period
- LIURP costs will be calculated based on the projected budget spend and the number of Income Level 1 income homes to be weatherized. All underspent dollars will be carried over into the next year's LIURP budget
- Warm Wise® Audits and Rebates program costs will be calculated on the projected number of Level 2a and 2b income homes provided with an energy audit, programmable thermostat and/or rebates. These two programs are not within the scope of this evaluation. The budget is not to exceed \$750,000
- ERP is not to exceed \$600,000
- Warm Wise® Audits and Rebates and the ERP program are outside the scope of this evaluation

Beginning in 2010, the Company began filing an annual reconciliation of Universal Service Costs under Rider USP.

Table 19 CAP Costs Per CAP Enrolled⁴¹ 2014-2016

Year	Admin	CAP Credits	Arrearage Forgiveness	Total Gross Cap Costs	Avg. Prog. Costs per CAP Enroll
2016	\$1,027,252	\$12,204,305	\$313,110	\$13,544,667	\$663.80
2015	\$1,041,519	\$16,131,673	\$1,031,677	\$18,204,869	\$855.74
2014	\$1,077,864	\$16,298,248	\$861,295	\$18,237,407	\$885.78

Finding CAP-16 CAP Costs

In 2016, the average CAP costs per CAP enrolled customer was \$663.80, significantly lower than the previous year of \$855.74. This is primarily due to a 69% reduction in arrearage forgiveness costs.

CAP Credits continue to comprise the greatest percentage (90%) of total Gross CAP Costs.

⁴¹ CAP Enrolled as of December 2014, 2015, 2015 Universal Service Reporting Requirements Lines 23, 24, 25.

Arrearage Forgiveness

When a customer is enrolled into CAP the total amount of their pre-CAP arrears except for \$180 customer co-pay (\$5 co-pay x 36 months) is recovered by the Company through the USP Rider.

As an active participant in CAP, the customer is eligible for arrearage forgiveness over a three-year period or 1/36th per month. The monthly CAP payment plus the \$5 co-pay must be paid in full and on-time as a condition of receiving arrearage forgiveness benefits. For missed payments, arrearage is forgiven retroactively once the customer makes catch up payments.

For example, if a CAP customer misses three months of payments but only makes two months of catch up payments, those two months will be eligible for arrearage forgiveness. A customer's total pre-program arrearage will be forgiven after 36 months of full CAP payments.

The evaluator finds the Columbia CAP bills to be very clear and well presented with the customer co-pay and retirement clearly noted on the account summary portion of the monthly CAP bill.

Table 20 Average Pre-CAP Arrearage by CAP Plan Option⁴² 2013-2016

Year	Option 1 % of Income	Option 2 Avg. Bill	Option 3 % of Bill	Option 4 Min Pay	Option 5 Sr. CAP	Number of Customers with Zero Arrears
2016	687	752	557	569	0	258
2015	776	714	609	679	370	167
2014	670	663	558	512	n/a	127
2013	681	642	606	544	775	90

Finding CAP-17 Avg. Pre-CAP Arrears

CAP customers within Option 2 (Average Bill Plan) had the highest average pre-CAP arears at \$752 compared to the other four option plans in 2016.

The number of CAP customers who had zero arrears upon enrollment was at an all-time high of 258 customers.

⁴² CPA Data Response 1-CAP-17 Pre-Program Arrears

The number of CAP customers receiving arrearage forgiveness benefits fluctuates from year to year as does the average forgiveness amount per customer. Compared to the other PA natural gas utility distribution companies' CAP spending by component, the weighted average was at a 12% spend for arrearage forgiveness in 2015. Columbia had the lowest at 6% of total program costs attributed to arrearage forgiveness. 43

The Company attributed the weather and gas costs as being major drivers in the changes in pre-program arrears balances. In 2014-2015, the weather was colder than normal resulting in higher gas costs. CAP customers would have higher balances that would need to be forgiven. In 2015-2016 the weather was drastically warmer resulting in much lower gas costs. Customer bills were significantly lower that year so there would have been less need for CAP forgiveness.

Table 21 Average Arrearage Forgiveness Per Customer⁴⁴ 2013-2016

Year	Arrearage Forgiveness	# of Customers	Average Arrears Forgiven
2016	\$313,110	11,489	\$27.25
2015	\$1,031,677	9,525	\$108.31
2014	\$861,295	8,662	\$99.43
2013	\$551,146	6,599	\$83.52

Finding CAP-18 Avg. Arrearage Forgiveness

The Company's Arrearage Forgiveness component benefited 56% of the total customers enrolled in CAP year end December 2016.

Arrearage forgiveness costs in 2016 were at their lowest at \$313,110 or \$27.25 per customer compared to the most recent four-year period, while the number of customers receiving those benefits was at its highest at 11,489 customers during the same period. The Company cited warmer than normal temperatures and lower gas costs during the 2015-2016 heating season as the reason for the fluctuation.

Compared to 2015, the Company saw an increase of 1,925 customers receiving benefits but a 69% reduction of arrearage forgiveness costs.

Recommended Action

Company to perform an analysis to determine if the decline in overall arrearage forgiveness costs are in direct proportion to lower pre-CAP arrears upon initial enrollment.

⁴³ 2015 BCS Report on Universal Service Programs & Collections Performance of PA Electric & Natural Gas Distribution Companies Total CAP Spending by CAP Component pg. 46

⁴⁴ CPA Data Response 1-CAP-18 Arrearage Forgiveness Includes a combination of new CAP, removed CAP, and reentered CAP.

CAP Credits

The primary driver of the fluctuation in CAP Credits is linked to the fluctuation in arrearage forgiveness. CAP Credits also vary based on the number of customers in CAP, the distribution and commodity prices, and the weather. Colder weather will increase CAP credits dramatically and conversely warmer weather will result in a decrease of CAP credits.

CAP Credit Controls

For those customers who have already received weatherization services and still exceed \$1,000 annually in CAP Credits, the Remedial Energy Efficiency Program (REEP) will be put into place. Energy efficiency education will be provided by a third party on an individual basis for up to 200 customers per year. The contractor will also monitor usage and provide feedback on an on-going basis for one year. If usage continues to exceed the allowable shortfall limits and the customer does not meet any exemption criteria identified in the CAP policy statement, the customer may be required to make an increased payment or may be removed from CAP.

Table 22 2015-2016 Average Annual CAP Credit Per Customer

Year	Total Annual CAP Credits	No. of CAP Customers Receiving Credits ⁴⁵	No. of Customers Receiving Zero Credits ⁴⁶	Average Annual CAP Credit Per Customer Receiving Credits	Average Annual CAP Credit Per Total Customers Enrolled in CAP ⁴⁷	Total No. Customers Over \$1,000 in CAP Credits
2016	\$12,204,305	16,910	792	\$722	\$598	1,201
2015	\$16,131,673	15,623	354	\$1,033	\$758	2,380

Finding CAP-19 Average CAP Credits

The average annual CAP Credit for customers active in CAP as of December was \$598, a decrease of 21% (\$160) compared to \$758 in 2015.

Another calculation of the number of customers actually receiving CAP credits shows 16,910 customers receiving an average CAP credit of \$722 a significant decrease of 30% (\$311) compared to \$1,033 in 2015.

The number of customers receiving over \$1,000 in CAP Credits significantly decreased from 2,380 customers in 2015 to 1,201 customers in 2016, approximately a 50% decrease.

⁴⁵ CPA Data Response 1-CAP-15&16

⁴⁶ Ibid

⁴⁷ 2015-2016 Universal Service Reporting Requirements- Cap participants as of December.

CAP-19 Continued

There were 792 customers receiving zero CAP Credits, an increase of 438 customers from the previous year in 2015.

Warmer weather, lower gas costs and lower arrearage forgiveness costs attribute to these decreases.

Administrative Costs

Administrative costs include: contract and utility staffing, account monitoring, intake, outreach, consumer education and conservation training, recertification processing, computer programming, program evaluation, quality assurance and other fixed overhead costs. The Company's administrative costs in 2015 were one of the lowest percentages (6%) of overall CAP costs as compared with the other PA natural gas utility distribution companies' weighted average of 5%.⁴⁸

Table 23 Administrative Costs Detail⁴⁹ 2014-2016

	2016	2015	2014
Labor	\$ 67,118	\$ 66,291	\$ 65,076
Materials & Supplies	\$ 594	\$ 595	\$ 291
Outside Services	\$ 282,132	\$ 253,251	\$ 274,743
Employee Expenses	\$ 3,328	\$ 4,154	\$ 3,410
Application Fees	\$ 262,766	\$ 238,434	\$ 231,296
Call Center Costs	\$ 411,315	\$ 478,795	\$ 503,048
Total	\$,027,252	\$ 1,041,519	\$ 1,077,864

Finding CAP-20 Administrative Costs

CAP administrative costs have remained consistent at 6% of the Company's total CAP costs throughout the last three program years 2014-2016. Columbia has one of the lowest administrative costs compared to the other Pa natural gas distribution companies. This is due in part to the cost savings gained by the efficient electronic transfer of pre-screen customer data by both the Company and CAP screening agencies into the Administrator's OSCAR system.

⁴⁸ 2015 Universal Service Programs & Collections Performance of the PA Electric and Natural Gas Distribution Companies BCS- Page 46

⁴⁹ CPA Data Response CAP-19 Administrative Costs

How Effective are the CAP Control Features at Limiting Program Costs?

Aggregation Model

As a result of the Natural Gas Choice and Competition Act, the Company formulated a low-income aggregation for CAP customers concurrent with Columbia's Choice program.

As a condition of CAP, customers must agree to allow the Company to act as their agent to contract for the purchase of gas supplies form a licensed natural gas supplier (NGS). The NGS is selected from interested licensed suppliers who respond to a Request for Proposal (RFP) sent out by the Company. The purpose of this arrangement is to make CAP more cost effective by contracting for the cost of gas that is lower than Company's sales service rate. Through this arrangement CAP customers benefit from the competitive market for gas supply and from the economies of scale gained through the aggregation of their volumes into the larger CAP group.⁵⁰

Finding CAP-21 Aggregation Savings

The Aggregation Model has realized an impressive cumulative savings for CAP customers of \$11,640,529 from its inception in July 2011 through December 2016. This model proved to be a successful alternative to traditional CHOICE and served to reduce overall CAP costs.

Finding CAP-22 CAP Controls

The Company is in compliance with all of the CAP control features as described in their most recently filed 2015-2018 Universal Service Plan.

The remaining control features have already been detailed in Section "CAP Description," pages 22-23. The evaluator concludes that the Company's CAP is well managed with adequate controls put into place for limiting program costs.

⁵⁰ CPA Ad Hoc Data Response- CAP Aggregation Model Savings

CAP IMPROVEMENTS

Multiple changes have been made to the Company's CAP since the last Universal Service Evaluation conducted in 2010. Some of these changes were the result of recommendations made in their 2010 Universal Service Evaluation while others were independent improvements made by the management team.

This is a testament to Columbia's proactive approach in striving towards continuous improvements not only with CAP but with their other Universal Service Programs as well. See Sections on LIURP, CARES and Hardship Funds Improvements

Table 24 CAP Improvements 2011-2017

	2011	2012	2013	2014	2015	2016	2017
	Initiated CAP Plus which added a \$ amount to all customers in Nov 2010	Initiated 2 year CAP max credit pilot to review high CAP shortfall accounts. Survey to determine whether exceptions existed was completed.	Call aid for Universal Services was updated to improve credt, reconnect quotes & disputes	Required all potential hardship fund grant recipients to go to an agency rather than to DEF central office to increase agency volume	Changed Option #2 calculation to reflect pre CAP number instead of re calculating each reentry or reverification	house to improve	Create enhancements for third party notification usage
	Allowed DEF to use First Energy income to verify CAP eligibility		Partnered with Beaver County Housing authority to take CAP applications on site to help avoid overdue evictions		Adopted a standard zero income form	Rolled out OSCAR 2 which improved efficiency for agencies and Columbia US Reps	Electronic communication with DEF with removals and reentry into CAP
CAP				CAP agency roundables to explain upcoming changes	Changed arrearage retirement from requiring customer be current to receive to requiring customer to make one full payment to receive 1		Refreshed all letters t customers sent via mainframe. Automated process reducing possible errors from manual
					Eliminated need to receive DEF funds if customer was never CAP prior to entering CAP. This eliminated a barrier to entering CAP and	CAP agency roundtables were completed to improve communications	
					Rider USP to include CAP monthly administrative fees		

CPA Universal Service representatives use a holistic approach to resolve a customer's payment troubled issue after identifying them as low income. All energy programs are considered based on availability, program funding and eligibility criteria.

The table below captures linkages made to other low-income programs during the time when the customer is enrolled in CAP. Of particular significance is that only 50% of those enrolled in CAP in 2016 received LIHEAP grants. This implies that either the customer never applied for LIHEAP or that LIHEAP was applied for and designated to their electric provider. In addition, as with other programs, warmer weather and lower gas costs in 2015-2016 might account for less of a need for LIHEAP.

Table 25
CAP Customer Multiple Program Participation⁵¹
2013-2016

	2016	2015	2014	2013
# of CAP customers receiving LIHEAP	10,545	8,964	13,146	11,463
# of CAP customers receiving LIURP	414	385	357	428
Average \$ amount of LIHEAP grant per CAP customer	\$268.32	\$239.24	\$259.50	\$224.59
# of CAP customers receiving DEF	497	531	1377	1267
Average \$ amount of DEF grant per CAP customer	Unable to Provide	Unable to Provide	Unable to Provide	Unable to Provide

Finding CAP-23 CAP Customers Receiving LIHEAP

Approximately 50% of those CAP customers eligible for LIHEAP actually applied for and received LIHEAP in 2016. While LIHEAP outreach efforts continue to be prioritized, the Company has yet to realize results which might improve these percentages. However, some percentage of customers may have applied for LIHEAP but assigned their grant to their electric utility.

Recommended Action

The Company to consider surveying CAP customers who did not receive LIHEAP in 2016 to ascertain reason(s) for not applying.

⁵¹ CPA Data Response 1-CAP-22 Multiple Program Participation

Since the inception of LIURP in 1988, the Company has weatherized approximately 8,000 homes with consumption savings averaging between 21-24%. Average expenditure per home in 2016 was \$7,076 with an expected payback of 7-12 years for each installed measure.⁵²

Columbia's current level of funding was increased to \$4,750,000 annually pursuant to the approved settlement of R-2012-2321748.

LIURP Key Objectives⁵³

- Safe, affordable energy for low-income customers
- Reduced uncollectible arrearages and write-offs
- Reduced consumption
- Affordable budgets/bills for customers
- · Improved payment frequency
- Reduced CAP shortfall deficit through bill reduction
- Improved customer satisfaction
- Environmental awareness/protection
- Responsible energy use

Eligibility Criteria54

- Columbia residential heating customer
- Customer must be enrolled in Columbia's CAP and must not have received weatherization services in the past seven years at their current dwelling
- Up to 20% of annual budget eligible for special needs customers as defined in Section 58.2, (relating to definitions) including non-CAP customers who otherwise meet the LIURP eligibility requirements
- Homeowner or renter; renter must have property owner permission
- Average winter monthly consumption greater than 170 Therms
- Dwelling must be approved during audit to be in proper condition to weatherize
- A premise may be disqualified if Columbia makes a determination that providing weatherization services would not be cost-effective

Program Components⁵⁵

- Home Energy Audit
 - Each home is audited to determine if the dwelling is in proper condition for weatherization. Weatherization measures are recommended at the time of the audit.
 - Referrals to other housing development agencies for repair work are made if necessary. Referrals to other utility weatherization programs are made as necessary.

⁵² Universal Services Reporting Requirements Line Item 22.

⁵³ CPA Universal Service and Energy Conservation Plan 2015-2018

⁵⁴ Ibid

⁵⁵ Ibid

- · Energy education provided concurrent with audit
- Coordination with other utilities and weatherization programs to leverage funds and increase customer satisfaction
- Heating system is inspected, cleaned and repaired as needed prior to weatherization treatment
- Gas furnace may be upgraded to 92% efficiency or higher if deemed inefficient
- Gas boiler systems may be upgraded to 80% or higher if deemed inefficient
- Health and Safety (H&S) allowance up to \$650.00 not including heating system replacements, which are deemed as an efficiency measure
- Weatherization measures are performed specific to audit recommendations
 - Treatment is determined based on highest efficiency results. Measures include sidewall and attic insulation, blower door guided air sealing measures such as caulking, sealing and window stripping
- Twenty-five percent of weatherized homes are inspected for quality and safety
- Program is evaluated by comparing weather normalized pre-treatment usage to weather normalized post treatment usage to determine savings

Referrals to LIURP

Columbia uses existing CAP customer lists to pre-screen for LIURP eligibility since the majority of LIURP recipients are CAP customers. In addition, referrals come through other channels via community agencies and two electric utilities, Duquesne Light and FirstEnergy. The Columbia Cold Weather Survey Team, LIHEAP Hot Line Team and Universal Service representatives make referrals to all available assistance programs (CAP, LIHEAP, and Hardship Funds) when interacting with payment troubled, low-income customers.⁵⁶

Managing the LIURP Work Flow

In April 2016, the Company implemented an impressive electronic data base called 'Vision' which manages the entire LIURP process from customer pre-screen to contractor completion. All LIURP contractors have access to Vision and are required to update their audits and findings, install measures, clean and tunes, repairs, post inspections and to submit invoices once work has been completed. Comments from interviewed contractors said that they were pleased with the database and found it to be user friendly.

With this tool, Columbia can now access in real time LIURP information with visual dashboards summarizing:

- Total Projects Per Month by Year
- Projects Average Time to Close
- · Projects by Current Status Project to Date
- Total # Projects vs Goal

Other benefits include reduction of manual entries, letter creation from Vision, elimination of written documentation and overnight updates into the Company's DIS system.

^{56 2015-2018} Universal Service and Conservation Plan

Once the internal Weatherization Specialist pre-screens the customers for eligibility and verifies usage, a letter is sent in Vision informing the customer that a contractor will be calling them to schedule an appointment. CAP customers with high usage are prioritized. In Vision, the specialist assigns a contractor for the approved LIURP customer.⁵⁷

Columbia contracts with 13 weatherization and 50 HVAC contractors. The weatherization contractor schedules an appointment, notifies the HVAC contractor to complete a clean and tune of the furnace and assigns the HVAC contractor in Vision. After the heating equipment is deemed to be safe and all repairs (if any) are completed, the Weatherization contractor begins installing the measures. If jobs are cancelled or otherwise put on hold, this is also noted in Vision.

To ensure a good customer experience with LIURP, Columbia strives to cause as little disruption as possible while providing weatherization services. Additionally, the Company places importance on providing these services within a reasonable amount of time from LIURP referral to weatherization completion.

From a 2016 sample of 5-7 jobs per LIURP contractor, the Company reported an average of 120 days from customer referral to weatherization completed. From the time of the scheduled audit to weatherization complete the length of time reported was 70 days.⁵⁸ These are reasonable durations for weatherization completion.

The LIURP workflow is impacted by the actual length of time it takes for the contractor to reach the customer to set an appointment, customer's schedule of availability and completion of the heating equipment safety check/follow-up.

⁵⁷ Interview LIURP Weatherization Specialist

⁵⁸ CPA Data Response 1-LIURP- 13 Workflow

Quality Assurance Coordinator

Since the last US evaluation in 2010, the Company has added the position of Quality Assurance Coordinator (QAC) to the LIURP team. The QAC assigns all post inspections to contractors in Vision (random selection of 25% completions each); ensures all inspection emergency findings are handled the same day; ensures all inspection non-emergency findings are followed up by a HVAC or a weatherization contractor as appropriate; ensures all documentation, pictures and notes are uploaded into Vision, and reconciles all contractor invoices before sending to the Weatherization specialist for processing.

The QAC performs mid-year reviews with all the contractors to further check on quality and customer service. Five field visits are performed annually. Contractors who request to exceed the soft cap on weatherization expenditures per individual job must receive prior approval from the QAC. Factors comprising the 'soft cap' are calculated on an individual basis and those include the number of therms of usage plus projected savings from installed measures meeting the 12-year payback criteria. ⁵⁹

Finding LIURP-01 Quality Assurance

The Company has taken extraordinary steps in ensuring quality and consistency with its LIURP implementation. Columbia's LIURP process and procedures are well written and easily understood. The new data base, Vision, is exceptional in tracking LIURP workflow and is regarded as a useful tool by both the internal and external LIURP team. Impressive!

⁵⁹ Interview LIURP Quality Assurance Coordinator

Program Measures

Program measures that meet a simple 12-year payback are installed. The major measures include:

- Sidewall insulation
- Attic insulation
- o Furnace repair/replacement
- Water Heater replacement

Post Inspections for Quality Control

Although most of the weatherization contractors perform their own quality inspections, the Company contracts with Conservation Consultants, Inc., (CCI) a non-profit organization and Pure Energy, Inc., a private company to perform post inspections on 25% of completed jobs with all weatherization contractors.

In a few cases where the weatherization contractors do not perform their own inspections, by the time CCI arrives on the scene, there have been cases where a small gas leak is discovered at the customer's home. This should have been checked during the HVAC visit to the customer's home while performing the furnace clean and tune up. The CCI inspector was concerned that even though most of the leaks have been small and were quickly repaired, it puts an additional burden on the customer who now has to wait for equipment repair or replacement.⁶⁰

CCI reports that 95% of customers inspected are pleased with the LIURP process. A customer survey is sent out upon completion of the weatherization installation to further ensure quality of contractor work.

Finding LIURP-02 Post Inspection Emergencies

Post Inspection audits revealed that when homes were inspected, some of the households had small gas leaks.

Inspectors felt this could have been an oversight of the HVAC contractor during the initial customer visit. Or that the leaks had newly occurred from the time of the audit to the post inspection.

Recommended Action

The Company has already taken action to reduce the lag time between the audit and post inspection visit. Currently, the HVAC contractor checks for gas leaks during the furnace clean and tune. However, the evaluator suggests that whenever repairs are made to the house or heating equipment that the house be checked again for any disruption in gas pipe which may result in small leaks.

⁶⁰ Interview CCI Post Inspections

LIURP Participation

Columbia continues to prioritize CAP customers with high usage for LIURP participation. High usage is defined as the average winter consumption of 170 Therms annually. However, with increased emphasis on reducing shortfall for CAP customers and therefore reducing CAP credits it seems logical to begin prioritizing CAP customers with CAP Credits over \$1,000 annually for weatherization regardless of compliance with the 170 Therm threshold. As identified in the CAP Credits section of this document, there were 1,201 CAP customers exceeding \$1,000 in CAP Credits in 2016.

This pool should be added to the priority list going forward for future weatherization services.

As indicated in the table below, 78.6% of LIURP participants in 2016 were CAP customers. Special needs customers between 150%-200% of FPGL represented 7.4% of total LIURP participants, with expenditures well within the allowable 20% of the annual budget of \$4.750,000.

Table 26 LIURP Demographics⁶¹

	2016	2015	2014	2013
		2000	100245	
Total # Customers Weatherized	515	615	518	571
# of CAP	405	453	364	445
% of CAP	78.6%	74.3%	72%	78%
# of Customers between 150% and 200%	38	102	59	41
% of Customers between 150% and 200%	7.4%	16.7%	11.6%	7.2%
# of Renters	34	48	40	38
% of Renters	6.6%	7.9%	7.9%	6.7%

Finding LIURP-03 LIURP Demographics

The Company prioritizes high usage CAP customers for LIURP with a reported 78.6% or 405 CAP customer receiving weatherization services in 2016.

The Company began prioritizing CAP customers with CAP Credits exceeding \$1,000 as potential LIURP participants in 2017 regardless of the 170 Therm usage threshold criteria.

Recommended Action

Company to measure the impact of LIURP on both CAP Credits and usage on these customers as a sub set of LIURP.

⁶¹ CPA Data Response 1-LIURP-12 Demographics

LIURP Removals

There are significantly more customers who are pre-screened for LIURP than who actually enroll into the program. In most cases, except for being over income, the reasons for customers being removed for further LIURP consideration are often out of their control.

Table 27 LIURP Removals⁶² 2013-2017

	2016 & 2017	2015	2014	2013
Structural Issues	339	83	11	10
No Response/ Cust Request	595	115	176	290
Alrdy Wx	44	4	4	5
Deceased	0	2	0	0
Moving/Foreclosure	26	15	6	5
Low Consumption	395	18	66	88
Landlord Refusal	415	3	40	78
Mobile Home	4	2	2	0
Over Income	80	16	.2	33
Misc/Unknown	88	33	33	73

Of the total customers removed for further LIURP consideration, the evaluator would like to address those being rejected for low consumption and landlord rejection.

Low Consumption

Columbia performs the annual Cold Weather Survey for all customers who are without gas service prior to the start of each winter heating season. For these customers, the Company makes numerous attempts to contact them to determine if other supplemental heat sources are being used for health and safety purposes (e.g. electric space heaters, kerosene heaters, heating oil).

In 2016, Columbia identified 436 heat related premises that were occupied but the gas service was not reconnected. Of those, 218 accounts were using alternative heating sources, the majority of which heated with electric space heaters. This is important to understand ⁶³because customers who might otherwise be eligible for LIURP except for the usage criteria, may be left out of receiving critical services due to non-working furnaces needing repair/replacement and/or they do not have a history of 12 months of heat usage for evaluation purposes.

Included in this discussion are the results of two mini-pilots conducted by electric utilities experiencing similar roadblocks to LIURP participation for usage reduction.

⁶² CPA Data Response1-LIURP -14 Removals

⁶³ CPA 2016 Cold Weather Survey

'De Facto Heat Pilots'64

As part of this evaluation a review was conducted with PPL and PECO who had developed small pilot programs attempting to study their "de facto" heat customers whereby the electric utility was not the primary heating source.

PPL's pilot was very labor intensive in terms of locating eligible customers. They started with the assumption that heat pumps would be provided to "de facto" heating low income homeowners with ranch style houses. They had a lot of difficulty finding the target population which resulted in only 12 participants with most of the homes being row houses. Achieved savings for the 10-month pilot was 3.5 Mhw per year, less than the projection of 7.4 Mhw. Customers received LIURP at the same time with those measures being tracked separately. PPL concluded that the small savings was due in part to the small sample size and the higher cost/per home for row houses vs. ranch houses as originally targeted. The company recommended a mini split heat pump pilot to include de facto heating accounts.

PECO's pilot pre-selected 100 customers who were CAP customers with balances over \$1,000. These had previously received LIURP but could not be helped with usage reduction since their heating systems could not be addressed. Eighty-two (82) customers decreased usage by 11% with eighteen (18) customers increased usage by almost 30%. If the customer's heating services were not available or the system was too expensive to replace, heat pumps were installed. It was determined that heat pumps were not a cost-effective alternative to heating systems. PECO concluded that they must avoid expanding electric usage with new measure installation.

Neither of the pilots was funded by LIURP funds. Both companies recommended studying the feasibility of working with local natural gas utilities for similar pilots.

Finding LIURP-04 De Facto Heat Customers

Customers who might otherwise be eligible for LIURP except for the usage and 12-month history criteria, may be left out of receiving critical services due to non-working furnaces needing repair or replacement.

Since LIURP is a 'savings driven' program focusing on usage reduction, it disallows these vulnerable customers to participate.

Recommended Action

The Company to consider the feasibility of a joint gas and electric utility pilot within overlapping service areas to target 'de facto' heat customers who may have received LIURP measures but have not benefited from usage reduction from their heat source.

These customers would be excluded from the expected usage reduction evaluation associated with a savings-driven program, but treated as a sub-set.

⁶⁴ Telephone interview PECO and PP&L

Landlord Refusals

Landlords refusing weatherization on behalf of their tenants is an ongoing challenge to Columbia's LIURP. In 2016 and 2017, landlord refusals were reported at 415.

Although the Company took action to make improved modifications to the landlord acceptance letter, the evaluator reviewed the legal contract and discovered the language below:⁶⁵

"I further agree that the rent at the address below shall not be increased, nor the tenants residing at said address evicted, during the twelve month period immediately following the completion of said weatherization work by Columbia Gas of Pennsylvania, Inc.; provided that the tenants comply with their ongoing obligations and responsibilities as provided by law."

Finding LIURP-05

The language in Columbia's legal contract for LIURP is very restrictive and may be a barrier to landlord participation with the program.

Recommended Action

Eliminate the restrictive language in the landlord LIURP contract.

⁶⁵ CPA Ad Hoc Data Response Landlord LIURP Contract

LIURP Budget vs Actuals

The BCS guidelines for LIURP spending require .2% of a covered utility's jurisdictional revenues to be spent annually. In 2015, Columbia's jurisdictional revenues at .2% would require spending of \$1,072,605. The Company has significantly increased its spending levels over and above this requirement. Columbia has the second highest LIURP spending as compared to other PA natural gas utilities, but has the highest average savings per heating job. 66

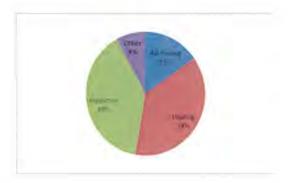
Table 28 LIURP Budget &Total Spend 2013-2016⁶⁷

Year	Budget	Actual Spent	Completions	Avg. Cost per Heating Job ⁶⁸
2016	\$4,906,58169	\$ 5,000,477	515	\$7,076
2015	\$5,003,968	\$ 4,847,387	608	\$6,527
2014	\$4,511,758	\$ 4,266,008	518	\$7,274
2013	\$4,125,076	\$ 4,363,318	574	\$6,792

Costs of Weatherization Measures

In 2010 and 2011, insulation and repair/replacement of heating equipment were the most common measures installed. The "other" cost category includes auditing, installing carbon monoxide detectors, and other miscellaneous repairs.⁷⁰

Figure 2
Total Costs of Measures Installed
2010-2011



^{66 2015} Universal Service Programs & Collections Performance Page 38,40

⁶⁷ CPA Data Response 1-LIURP-04 & 05 LIURP Budget and Spend

⁶⁸ CPA Universal Service Reporting Requirements 2013-2016 Line Item 22

⁶⁹ Includes \$156,581 in unspent 2015 carryover costs

⁷⁰ CPA Annual Report Warm Wise LIURP 2010-2011 Program Year

BCS Requested Analysis for LIURP Program Years 2010-2011 Costs vs. Savings

2010

The 494 customers who received weatherization in 2010 saw an average of **22.9%** reduction of weather normalized energy use as compared to the previous calendar year. The average decrease in consumption was 40.29 Mcf per year. The average pre-usage consumption was 171 Mcf per year.⁷¹

While maintaining their philosophy of installing cost effective measures, Columbia managed LIURP expenditures with a 'soft cap' of \$5,000 per home.

The Company has maintained metrics to show the relationship between costs of measures installed and savings achieved. Overall, it appears that the higher costs receive the highest savings. However, when the metrics are separated out by contractor, we see that the relationship of high costs, high savings is not experienced by all contractors.

□ Total Cost ■% Savings 10% 15% 20% 25% 30% 35% Contractor K Contractor J Contractor I Contractor H Contractor G Contractor F Contractor E Contractor D Contractor C Contractor B Contractor A \$0.00 \$2,000.00 \$4,000.00 \$6,000.00 \$8,000.00

Figure 3 LIURP Costs vs. Savings 2010

Finding LIURP-06 Costs vs Savings 2010

In 2010, The Company experienced a 23% savings on average with some contractors experiencing as high as 29%.

⁷¹ CPA LIURP Annual Report 2010

2011

The 522 customers who received weatherization in 2011 saw an average of **24**% reduction of weather normalized energy usage as compared to the previous calendar year. The average decrease in consumption was 37 Mcf per year. The average pre-usage consumption was 159 Mcf per year.



Figure 4
LIURP Costs vs Savings

Finding LIURP-07 Costs vs Savings 2011

In 2011 the LIURP program achieved an overall savings of 24% on average with one contractor realizing more than 30% savings.

Furnace Replacement

In 2009, Columbia policy was changed to allow for the upgrade of inefficient heating systems rather than just repairing/replacing due to health and safety issues. Those homes that had a furnace replaced saw an average of 26% savings. Those homes without a furnace replaced experienced an average of 19% savings. Columbia reports that it continues to find value in replacing inefficient and unsafe heating systems.

Finding LIURP-08 Costs vs. Savings Summary

Overall, higher LIURP costs equate to higher average savings. However, when segmented by contractor, the savings are not consistent among all contractors.

Recommended Action

The Company to continue to monitor individual contractors to ensure their LIURP expenditures are warranted and meet or exceed the average savings goal of the program.

LIURP Program Years 2010 and 2011

BCS requested that the evaluator conduct a trend analysis for LIURP program years 2010-2011 regarding savers vs non-savers aggregated by % of income level and correlate any impacts if any on arrearage reduction as a direct result of weatherization. See the results in the table below.

Table 29 LIURP Savers vs Non- Savers by FPIG⁷² 2010-2011

			LIURP S	avers vs	Non Sa	vers				
		Savers			Non Savers			Zero		
2010 Completions	Total	No. by	Inc. Level	Total	Total No. by Inc.Level		Total	No. by Inc. Level		
495	452	83	0-50%	37	7	0-50%	6		0-50%	
		158	51-100%		16	51-100%		5	51-100%	
		178	101-150%		13	01-150%		1	101-150%	
		34	>150%		1	>150%				
Avg. MCF Saved	40						0			
Avg. % Saved	23%			.07% inc.			0%			
2011 Completions	Total	No. by Inc. Level		Total	No. by	/ Inc.Level	Total	No. by	y Inc. Level	
524	460	50	0-50%	60	15	0-50%	4	4	0-50%	
		185	51-100%		22	51-100%			51-100%	
		188	101-150%		20	01-150%			101-150%	
		37	>150%		3	>150%				
Avg. MCF Saved	37						0			
Avg. % Saved	24%			15% inc.			0%			

Findings LIURP-09 Savers vs. Non-Savers 2010-2011

Savers-Decrease in Usage

2010

Of the 495 completions, 92% (452) of customers realized annual average savings of 40 Mcf or 23% (12 months post weatherization). The majority of savers (336) were within the 51-100% and 101-150% of income levels.

2011

Of the 524 completions, 88% (459) of customers realized annual average savings of 37 Mcf or 24%. The majority of savers (373) were within the 51-100% and 101-150% of income levels.

⁷² Average LIURP spend in 2010 was \$5,811 per customer compared with \$5,077 in 2011.

Non-Savers-Increase in Usage

2010

Of the 495 completions, .08% or 37 customers were non-savers showing increases in usage averaging .07% (12 months post weatherization). The majority of non-savers (29) were within the 51-100% and 101-150% income levels.

2011

Of the 524 completions, 12% or 60 customers were non-savers showing increases in annual usage averaging 15% (12 months post weatherization). The majority of non-savers (42) were within the 51-100% and 101-150% of income levels.

Zero Changes in Usage

2010

Of the 495 completions, .01% or 6 customers showed zero change in consumption 12 months post weatherization. All of this group fell within the 51-100% and 101-150% of income levels.

2011

Of the 524 completions, .008% or 4 customers showed zero change in consumption 12 months post weatherization. All 4 fell within the 0-50% of income levels.

Usage Monitoring for LIURP

The Company's LIURP management team prepares the annual LIURP report and reviews usage. In 2015, Columbia began querying for non-savers and sharing the non-saver list with the LIURP contractors. This was to increase the understanding of why usage increased for a certain percentage of weatherized customers each program year.

In 2017, Columbia identified and surveyed 72 customers whose usage, once weather normalized, was higher post weatherization than pre- weatherization. The goal was to understand if there were reasonable explanations which caused the increase in household consumption.

Process

- Letters were mailed to each customer explaining their usage increased after weatherization and asking them to complete a short survey. Attachment A
- Each account was researched verifying the following:
 - Whether usage was impacted by service suspensions
 - Was there a change in customer or house occupancy
 - Did income change drastically
 - What measures were installed to consider this a completion
 - Were the dates associated with work installed accurate
- Each customer was called to review the returned survey or survey by phone

LIURP SAVERS vs NON-SAVERS

Demographics

- Twenty-eight (28) customers used a source of supplemental heat in the pre-period
 That number was reduced to nine (9) in the post period
- The average increase in consumption was 13.21 Therms per year ranging between .2 and 86.1 Therms per year
 - 15 homes > 20 Therms per year
 - 16 homes between 10 and 20 Therms per year
 - 21 homes between 5 and 10 Therms per year

Results:

- Nine (9) customers changed their behaviors causing the increased usage including turning up the thermostat
 - Examples: stopped secondary heat use (space heaters, wood burners)
- . Eight (8) customers replaced a broken, unused heat system during the pre-period
- Two (2) jobs had gas or hot water leaks during post period
- Twenty-three (23) jobs were deemed, in hindsight that they should not have been weatherized since usage reduction was not projected and/or remediation needed to occur using health and safety dollars
- Three (3) jobs were erroneously marked as complete, rather than incomplete
- Five (5) customers moved or had inactive service for some time during the post period
- . 19 jobs could not be determined as to why the household increased usage
- Three (3) jobs had usage reported incorrectly that did show a decrease in usage once corrected

Finding LIURP-10 Non-Savers Survey

A recently completed 2017 survey of 72 identified non-savers in LIURP revealed that 39% or 28 customers used a source of supplemental heat prior to LIURP and another eight (8) customers had broken heating systems in the pre-period causing their usage to increase significantly. An additional two (2) households experienced gas or hot water leaks during the post period. All of these were legitimate reasons for usage increases.

Of significance were 23 jobs identified that should have not been weatherized with LIURP dollars but were remediated for health and safety reasons using those dollars.

Recommended Action

Company to review with contractors when to walk away from jobs that clearly will not result in usage reduction and when to refer eligible jobs to health and safety equipment repair/replacement programs.

LIURP IMPACTS ON PAYMENT BEHAVIOR

Does LIURP Impact Customer Payment Behavior?

CAP Customers Program Years 2010 & 2011

After reviewing previous LIURP program years, the evaluator noted that the majority of customers receiving LIURP are also CAP participants. Assessing payment impacts attributable to weatherization only is difficult since CAP plays a major role in offering affordable payments with strict policies for non-payment. It would be almost impossible to differentiate between the two programs and resulting impacts on payment behavior.

However, in collaboration with the CAP Manager, we came up with an approach to compare the Average Annual Bill, Average Bill Reduction and Average Shortfall Reduction for all CAP customers vs CAP+LIURP customers within the same timeframe of 2010-2011. Since a goal of CAP is to reduce CAP shortfall and the resulting costs of CAP to non-participants, this approach was used to demonstrate that most likely, CAP+LIURP customers would overall see a greater decrease in average bill, bill reduction and shortfall.

Table 30 Impact of LIURP on CAP Program 2010-2011⁷³

2010	Avg. Annual Bill 2009	Avg. Bill Reduction 2011*	Avg. Shortfall Reduction 2011
All CAP	\$1356	23%	36%
CAP+LIURP	\$1982	36%	50%
2011	Avg. Annual Bill 2010	Avg. Bill Reduction 2012*	Avg. Shortfall Reduction 2012
All CAP	\$1106	24%	42%
CAP+LIURP	\$1557	41%	64%

^{*}Data is not weather normalized. Weather will impact bill.

Non-CAP Customers Program Year 201474

The Company reviewed 140 non-CAP customers' pre-and post-weatherization payment behaviors. Collectively, these customers paid less often (6.3 vs.5.8 payments), they paid more in the pre-period than the post period (\$936 vs. \$769) but notably their ending arrears after 12 months post were lower than their pre-period (\$288 vs.\$198).

This suggests that their payments went farther to reduce their debt and pay their full bill post weatherization.

⁷³ Compiled from CPA Data 2010-2011 Annual LIURP Reports

⁷⁴ CPA LIURP Annual Report 2014 Program Year

LIURP IMPACTS ON PAYMENT BEHAVIOR

Finding LIURP-11 LIURP Impacts

CAP customers who receive LIURP saw a greater decrease in the average bill reduction and shortfall compared to CAP customers not receiving weatherization services. Although not weather normalized, comparing the two groups during the same time frame does demonstrate impacts of the LIURP.

Non-CAP customers receiving LIURP in 2014 realized a 31% decrease in arrears 12 months post weatherization

Profile of a LIURP Customer

Typically, LIURP is referred to any customer meeting the eligibility guidelines through community action CAP and DEF screening agencies, CPA's Customer Service Representatives as well as self-referrals from information placed on the Company's web site. LIURP links most often with CAP and Hardship Funds.

As discussed in the previous section on payment behavior, the most significant benefits are to customers who participate in both LIURP and CAP.

Table 31 LIURP Participants in Multiple Programs⁷⁵ 2014-2016

	2016	2015	2014
LIURP and CAP	405	385	357
LIURP and CARES	5	5	5
LIURP and Hardship Fund	21	15	26
LIURP, CAP and CARES	2	2	2
LIURP, CAP and Hardship Fund	12	7	12
LIURP, CARES and Hardship Fund	3	0	3
LIURP, CAP, CARES and Hardship Fund	0	0	0

^{75 2014,2015,2016} Universal Service Reporting Requirements

LIURP IMPROVEMENTS

The Columbia LIURP management team has consistently made changes to improve their LIURP program since the last US Evaluation in 2010. Of significance was the Company's attempt at improving contractor communications with a contractor website, increased efforts at soliciting landlord participation in LIURP and implementing a new database, Vision, to improve contract management and quality control. The Company is to be commended for its desire to improve efficiency and effectiveness with LIURP.

Table 32 LIURP Improvements 2011-2017

	2011	2012	2013	2014	2015	2016	2017
	Created Contractor Corner. A website for contractors only that provides helpful hints, all company forms, contact information, procedures and processes.	Formalize Quality Assurance and develop Program Metrics and communicate them to contractors	Began handwriting envelopes to landlords to increase landlord participation	Implemented new formula for soft CAP based on gas costs, contractor historical savings & customer usage. Allows the contractor to better estimate the amount they can spend per home to achieve a 7 to 12 year payback.	Hosted a joint meeting with weatherization contractors and post inspectors to calibrate expectations and responses.	Implemented new database to include contact management and streamline processes	Program Manager invited to represent PA state Gas utilities on the DCED Policy Advisory Council
			Referrals from CAP MAX credit pilot created need to re- weatherize many homes		Increased H & S to \$650.	Prioritized CAP shortfall over \$1,000 for weatherization	
LIURP			Held corporate wide Energy Efficiency week to promote programs internally	Implemented bulk invoicing for larger contractors to reduce invoice processing & check writing	Created new Welcome Packet for all LIURP customers	Hosted a joint Peoples-Columbia contractor meeting toreduce contractor meeting time while still communicating with contractors & share training costs	
			Stamped envelope with red "free benefits enclosed" for customer mailings.	Implemented an electronic LIURP record keeping storage reducing paper, need for file storage & easier access to files. Files can be accessed by LIURP team only	Implemented a new KAIR method for calculating required volume. This reduced the number of homes being red tagged for confined space without risking safety.	Partnered with three new county weatherization agencies	

Finding LIURP-12 LIURP Improvements

The Company has consistently and proactively implemented changes to LIURP to increase efficiency and effectiveness. Notable is the Contractor Corner website for LIURP contractors only for access to forms, processes, procedures; implementation of a contract management database, Vision, to more efficiently manage LIURP workflow, contractors, and customer data, and implementation of more creative ways to solicit landlord participation with rental properties.

LIURP NEEDS ASSESSMENT

The LIURP needs assessment is required to be filed with the USECP plan. The following is the latest filed Needs Assessment.⁷⁶

Number of Customers Who Still Need LIURP Services and the Cost to Serve that Number

Pursuant to BCS's May 9, 2001, document, Columbia identified the number of customers that meet the LIURP eligibility criteria, excluding those customers who have already received weatherization services. According to data from Columbia's customer information system, 22,409 customers meet the LIURP eligibility criteria. Of that total, 12,599 are property owners while the remaining 9,810 are renters. Columbia historically has had difficulty obtaining landlord approvals to weatherize homes. Assuming a 50% success rate, Columbia anticipates that 1/2 of the 9,810 renters in addition to the 12,599 property owners, totaling 17,504 could receive weatherization services. The estimated cost to serve these customers is \$101,960,800 at Columbia's current average expenditure per weatherized household.

In Columbia's 2016 rate case proceeding the Company provided this testimony regarding the LIURP funding level.

Although the needs assessment identified 17,504 customers, the needs assessment cannot identify the number of customers within that group that will not qualify due to structural issues or other barriers. Under Columbia's LIURP, homes must be structurally sound, without mold issues, knob and tube wiring or roof leaks. The owner of the home also must consent to the work. In that regard, a large number of identified households (44%) are rental properties. Furthermore, the needs assessment included customers who previously were denied weatherization benefits for various reasons. The Company does not remove these customers from its needs assessment, as it is possible the reason for the denial will be resolved in the future. Thus, the figure of 17,504 customers identified by CAAP witness overstates the number of residences that can receive cost-effective weatherization services.

⁷⁶ CPA Data Response 1-LIURP-02 Needs Assessment

CARES PROGRAM DESCRIPTION

The CARES program is staffed by social workers providing resource referrals, consumer education, LIHEAP Outreach and affordable payment plans tailored to the customer's ability to pay. CARES is designed to be a short-term program for first time payment-troubled customers who require energy assistance and other necessary resources and referrals.

In addition, CARES assists vulnerable CAP customers who need extra protection and account monitoring. It is also the final step in the Cold Weather Survey intervention process. The Customer/Community Outreach Coordinator makes additional attempts to contact those customers without heat. This intervention is continuous throughout the heating season. In addition, CARES acts as a gatekeeper for victims of domestic abuse in providing one on one support to those customers in compliance with 52 PA Code, Chapter 56.

The CARES program is also the network that informs all customers of available programs and resources through an information and referral call group at the customer contact center. The Customer/Community Outreach Coordinator trains Columbia employees on available resources.

Since 1986, the CARES program has assisted over 45,000 customers.77

Key Objectives

- Safe, sustained energy
- Customer self-sufficiency
- Resource development
- · Successful payment recovery
- Continuous payment frequency
- Reduced credit/collection costs
- Identification and cost avoidance associated with crisis/safety issues
- · Customer satisfaction
- Crisis intervention
- Reduced commission complaints
- Community networking
- Goodwill

Eligibility Criteria

CARES is designed to be a short-term or temporary program for residential-heat customers who <u>must</u> demonstrate one of the following scenarios:

- Payment-troubled customer, evidenced by missed payments or anticipated payment barriers due to a personal crisis that is likely to result in a financial hardship (i.e. situations involving medical, financial, employment, familial or psycho-social issues)
- Special-needs customer, evidenced by the onset of a crisis having a profound impact on an individual or family (e.g. sudden loss of income, divorce, major life-threatening illness, death of the wage earner or, service emergency during harsh weather)

⁷⁷ CPA Data Response CARES-01 CARES Description

CARES PROGRAM DESCRIPTION

- Vulnerable customer, defined as someone whose impaired intellect or mental health, extreme physical disability or, chronic mismanagement of finances has the serious potential to interfere with good payment behavior. These vulnerable customers will have diminished capacity to take care of basic needs, make reasonably sound decisions, take responsibility for their own personal safety or have barriers for communication with the outside world
- Domestic abuse customer, with a valid and active PFA (Protection from Abuse) court order, who is trying to obtain or maintain gas service
- Cold Weather Survey customer, age 62 or older, who is without their regular gas service and using space heaters such as, kerosene, wood, coal or electric

Program Components⁷⁸

- Case management approach to solving individual payment problems
- · Home visit assessment when necessary
- · Protection from termination during program
- Short-term, affordable payment plans based on "ability to pay" and case specific options designed by the coordinators for each specific customer
- Budget counseling
- Referrals and linkage to community, state and federal resources for direct and indirect monetary assistance
- · Information dissemination and referrals
- Crisis intervention
- · Oversight of accounts with active Protection from Abuse orders

Vision Data Base79

The CARES program was also incorporated into the development of the new electronic data base, Vision. With this tool, the Company can track all the status points of CARES customers: referrals, acceptance, defaults, quick fix, deceased, transfers and graduated. Customer letters can also be sent in Vision for CARES contracts, LIHEAP, dismissals from CARES and other exits.

⁷⁸ CPA Universal Service and Energy Conservation Plan 2015-2018

⁷⁹ CPA Data Response 1-CARES-01 Vision Procedures

CARES Referrals vs Acceptance

Most customers who are referred to CARES result in being assisted through a process the Company calls 'quick fixes'. Typically, these customers are referred to a network of programs, community agencies and a myriad of other resources specific to their immediate need. Most times, the customer need is eliminated with this approach. A very small percentage of customers require more of an individual case management approach and are accepted into CARES for monitoring and other assistance. The average length of time a customer remains in CARES is 18 months.⁸⁰

Table 33 CARES Activity⁸¹ 2014-2016

CARES	2016	2015	2014
Referred	911	928	899
Accepted	63	47	66
Transferred to CAP	7	7	12
Graduated	21	21	20
Defaulted	25	19	26
Quick Fix	690	691	716
Deceased	5	0	416
Moved	5	2	4

Table 34 below, shows customer payments, LIHEAP, Hardship Funds and benevolent community donations summed together next to 'Payments'. The 2nd and 3rd sum break out LIHEAP and CRISIS separately.

Table 34 CARES Benefits⁸² 2014-2016

		2016	2015	2014
Payments	\$1	01,245	\$97,318	\$74,057
LIHEAP	\$	6,554	\$ 5,360	\$ 7,181
CRISIS	\$	3,173	\$ 4,316	\$ 4,385

Finding CARES-01 LIHEAP Grants

In 2016, the number of CARES participants increased by 16 customers over the previous year, resulting in increased payments of \$3,927 and increased LIHEAP grants of \$1,194. LIHEAP Crisis grants decreased by \$1,143.

⁸⁰ CPA Data Response 1-CARES-03 Length of CARES Enrollment

⁸¹ CPA Data Response 1-CARES-02 CARES Activity. The answer was derived using a query of all customers that were made active in CARES since 2000 including those that were active prior to 2000 and still active and then calculating their average participation

^{*2} Universal Services Reporting Requirements 2014-2015-2016

CARES IMPROVEMENTS

As with the other US programs, CARES has made continuous improvements since the last US evaluation in 2010. Of note, is the creation of the Heat Wise program where Columbia provides free 'clean and tunes' of heating systems as well as safety checks to eligible homeowners.⁸³

In 2016, the CARES Department implemented low income program refresher training to the Call Center representatives to improve US call handling. The department is always seeking new opportunities for program referrals and outreach. Recognized in the communities they serve as the 'face of Columbia', CARES representatives continue to be true advocates for the payment troubled, low income, and special needs customers.

Table 35
CARES Improvements

	2011	2012	2013	2014	2015	2016	2017
CARES			Began Heat Wise, a program providing free C & T's of heating systems and safety	Began Community partnership where members of the US team station themselves at various agencies to take applications and provide information on a regular basis.	Enhanced Lotus Notes referral system from CSR's to CARES reps to ease navigation fo Coordinators	Implemented new database to include contact management and streamline processes	
			Increased outreach to Construction Services Department which increased referrals and awareness of programs			Implemented new US refresher training at CCC to improve US reps call handling	

⁸³ CPA Ad Hoc Data Response US Program Improvements 2011-2017

LIHEAP Outreach

LIHEAP outreach and networking are vital pieces of Columbia's low-income programs especially when addressing important health and safety concern. Columbia takes a serious approach to promoting and communicating LIHEAP benefits, dates of program opening and closing and providing LIHEAP application information to external and internal audiences.

External Outreach84

- Outbound calls to all previous LIHEAP recipients, CAP customers and all other Income Level 1 customers reminding them to apply for LIHEAP
- Bill inserts in all November bills promoting LIHEAP-Cash program
- Inserts in all Termination notices regarding LIHEAP Crisis during appropriate days in March and April (depending on Department of Human Services-DHS acceptance of termination notices)
- Outbound LIHEAP Crisis calls to Income Level 1 customers with terms which extends from mid-February to close to the end of March
- Staffing of hotline to answer agency calls
- Letters and posters to all Allegheny County Senior centers
- Coordination/ Participation/Sponsor of Be Utility Wise events throughout service territory
- Information on LIHEAP and all programs at many Senior and legislative events
- Universal Service line handles all incoming customer calls
- Opening Day Press Conference announcing LIHEAP is available
- Partnership with Peoples Gas on Media advertising campaign including:
 - toll free number
 - \$30,000 advertising budget for various media outlets. Franco Harris serves as spokesperson promoting LIHEAP

Internal Outreach Promotions85

- LIHEAP Kick Off Day includes dissemination of T-Shirts to all employees,
 Breakfast, contest & prizes, information tables at the Columbia Call Center
- "LIHEAP Wednesday" reminder message to appear on call center monitors on Tuesdays. TV monitors are checked for timely displays and reminder messages
- 1st week of November Distribute CSR Kleenex boxes with LIHEAP information
- · Update and maintain electronic bulletin board
- . Weekly winners of a VIP LIHEAP Parking space in the front of the building
- Weekly LIHEAP Trivia questions
- 'Frog' will visit on Wednesdays and will distribute a ticket to those wearing their THINK LIHEAP T-shirt or displays a THINK LIHEAP fan. During November through March, there will be two nominal prizes awarded each month then, one significant grand prize at the end of heating season. Tickets will be held throughout the LIHEAP season to be used in the final grand prize drawing
- Conduct Customer Programs update and LIHEAP season meetings at all service areas in PA and MD
- THINK LIHEAP fans will be distributed to new employees hired after the T-shirts have been distributed.

⁸⁴ CPA Data Response 1-LIHEAP-02 LIHEAP Outreach

⁸⁵ Ibid

LIHEAP Distribution

Despite the extraordinary outreach efforts for LIHEAP, the Company saw a decline in the number of customers who received the LIHEAP Cash and LIHEAP Crisis grants for the fourth year in a row.

Table 36 LIHEAP Distribution

LIHEAP	2015/2016	2014/2015	2013/2014	2012-2013
# Cash Customers	19,559	22,000	22,319	23,286
Avg. Cash Grant	\$308	\$214	\$206	\$222
# of Crisis Customers	5,385	5,672	4,642	4,687
Avg. Crisis Grant	\$251	\$284	\$291	\$253

LIHEAP Crisis 'Turn on Program' Supplemental Grants⁸⁶

This program was announced on July 21, 2016 for utility customers who were currently terminated as of May 21-July 21 or had a pending termination notice. This was an additional program to assist customers whose emergency could be resolved by \$500 or less. See statistics below.

- 24,944 2015-2016 LHEAP Cash and Crisis recipients
- 5,936 households identified as potentially eligible because gas service was off or had
 a term notice during the designated time frame. Each was manually reviewed to
 ensure eligibility
- 740 letters mailed out
- Columbia reported that more customers would have been eligible for the 'Turn on Program', however, the Department of Human Services (DHS) specified a timeframe for termination notices which made some households ineligible. Unfortunately, the Company did not track the number of affected households.
- . 486 Turn on Program grants were received
 - 375 to prevent termination
 - 111 to restore service
- \$125,473.07 Total Grant

The Company stated that DHS's timeline was aggressive (3.5 weeks) to complete the entire process from determining eligible households, obtaining permission/mailing letters and gathering the data to submit to DHS by August 12, 2016.

Finding LIHEAP- 01 LIHEAP Trends 2015/2016

Within the last four years, the Company has experienced a decrease of 16% (3,727) in the number of customers receiving a LIHEAP Cash grant. With fewer LIHEAP Cash recipients, the average grant amount of \$308 in 2015/2016 has increased by \$94 compared to the previous year.

The number of customers receiving a LIHEAP Crisis grant has decreased by .05%(287). The average LIHEAP Crisis grant has decreased slightly by \$33.

⁸⁶ CPA Ad Hoc Data Response LIHEAP Crisis Turn on Program 2016

LIHEAP IMPACT ON CAP CUSTOMERS

In 2010, Columbia was required to begin posting LIHEAP as a customer payment rather than to the shortfall when CAP customers received a LIHEAP grant. At the same time, Columbia initiated a new component of CAP that had been proposed by Office of Consumer Advocate (OCA) in order to reduce the impact of this change to non- CAP ratepayers.⁸⁷

CAP Plus, as it is named, considers the amount of LIHEAP the company received on CAP accounts in the prior program year and divides that equally by the number of customers currently in CAP as of September. Each customer's CAP payment is then billed an additional 1/12th of that amount. In Columbia's 2011 base rate case, a consumer advocacy group called Pennsylvania Communities Organizing for Change, challenged CAP Plus. When the Commission rejected that challenge, PCOC appealed to the Pennsylvania Commonwealth Court to overturn the Commission's decision. In April 2015, the Court issued an order denying PCOC's appeal.

Employing the Commission-approved formula for determining the CAP Plus amount, the CAP Plus amounts since 2010 have been as follows:

2010 - \$17

2011 - \$18

2012 - \$13

2013 - \$9

2014 - \$6

2015 - \$6

2016 - \$3

Finding LIHEAP 02 LIHEAP Impact on CAP Customers

Since 2010, the Company began posting LIHEAP as a customer payment rather than to reduce shortfall when CAP customers received a LIHEAP grant. A formula proposed by OCA initiated a new component of CAP called CAP Plus, to reduce the impact of this change to non-CAP ratepayers.

The 'plus' amount currently is an additional \$3, a significant decrease by 82% or \$14 since 2010 resulting in lower monthly customers' CAP payments.

⁸⁷ CPA Data Response 1-LIHEAP-03 DHS Impact

LIHEAP CHANGES

Columbia has made continuous changes, internal to the company, in order to effectively manage the coordination of LIHEAP.⁸⁸

- Additional resources were hired to handle the multiple supplemental programs as well as the new Federal reporting requirements
- The US Call Group took back the task of LIHEAP customer mailings to reduce errors and decrease mail time
- Due to Federal government legislation, utilities were required to provide usage and billing information to all LIHEAP recipients. The process to automate this began in 2015

Table 37 LIHEAP Changes

	2011	2012	2013	2014	2015	2016	2017
LIHEAP	Allowed LIHEAP grants to go to CAP amt asked to pay and future payments	Began posting LIHEAP to marketer charges when Columbia purchased gas supply.	Ordered wireless headsets for Hotline team increasing safety & efficiency		Federal govt passed legislation requiring usage and billing information for all LIHEAP recipients.		Hired a second LIHEAP clerk to handle increased workload created by multiple supplemental programs and new federal reporting requirements
					or with a term notice.	Took back mailing of LIHEAP applications from central mailing center to internal US group to reduce errors & decrease mail time.	Prevented the use of LIHEAP funds going toward previously billed LPC's

⁸⁸ CPA Ad Hoc Data Response US Program Changes 2011-2017

Columbia's hardship fund is a partnership with the Dollar Energy Fund, Inc.(DEF), an independent non-profit organization that provides utility financial assistance to customers who are on a low or fixed income.

Funding Mechanism

DEF is funded through donations from utility shareholders, customers and employees. Columbia contributes one dollar of shareholder money for every dollar contributed to DEF by its customers up to \$150,000.

Approximately 10% of awarded grant dollars are designated for administration of the program. DEF acts as the administrator for the outreach and application process in the community. Currently, 164 CBOs take applications for Columbia customers within their service territory.

Table 3889 Columbia Hardship Funding

Year	Shareholder Funds	Customer Contributions	tombut policitate to the	RiderUSP	to Turbolic to 12	Pipeline	Total Calendar Year
2016	5150,000.00	\$150,000.00	\$0.00	\$375,000.00			\$675,000.00
2015	\$150,000.00	\$150,000.00	\$0.00	\$375,000.00	\$0.00	\$0.00	\$675,000.00
2014	\$175,000.00	\$175,000.00	\$0.00	\$375,000.00	\$0.00	\$0.00	\$725,000.00
2013	\$195,000.00	\$195,000.00	\$375,000.00	\$0.00	\$600,000.00	\$228,305.00	\$1,593,305.00
2012	\$161,000.00	\$150,000.00	\$375,000.00	\$0.00	\$133,339.04	\$553,424.00	\$1,372,763.04
2011	\$150,000.00	\$150,000.00	\$375,000.00	\$0.00	\$0.00	\$648,776.00	\$1,323,776.00

In explanation:

- Matching Dollars funded by Shareholder Funds
 - \$150,000 is matched with \$150,000 in Customer Contributions
- Dollars for Grant Making funded by Pipeline Refunds / Credits
 - \$375,000 annually for grant making through 2018
 - Money for grant making has come from multiple sources throughout the years
 - Until recently, this money was included with the USP Rider as a charge funded by non-CAP residential customers
 - An agreement through the Company's 2016 rate case settlement was made to remove Hardship Funding from the USP Rider and fund it through pipeline penalty credits. The Company also agreed to increase fundraising efforts to fund the Hardship Fund. The penalty credit proceeds will adequately fund the Hardship Fund for at least 3 years (2017-2019)⁹⁰

Finding DEF-01 Funding Mechanism

The Company's agreement to fund DEF (\$375,000) through pipeline penalty credits will most likely deplete the credits by 2019.

Recommended Action

The Company to explore and implement efforts to identify funding mechanisms for DEF grantmaking beyond 2019.

⁸⁹ CPA Data Response 1-DEF-03 Contributions

⁹⁰ CPA Data Response CAAP 1-002 R-2016-2529660

Company Support and Promotion

In addition to providing annual funding for DEF grantmaking, Columbia also supports and promotes DEF through bill inserts, messages on the bill, electronic promotions and social media. All of Columbia's shareholder funds of \$150,000 have been matched each year.

Table 39 DEF Promotions

2015/2016	Total Raised	\$ per Customer	Bill Insert?	Participate in DEF sponsored Event		PERSONAL PROPERTY OF THE PARTY	Targeted Event or Campaign	Social Media
Columbia Gas	\$ 150,000	0.39	X	X	X	X	X	X

DEF Fundraising Events⁹¹

The Company has also participated in the DEF fundraising events listed below (held annually for the past three years):

Dollar Energy Fund's Warmathon

Staffed volunteers for the phone bank

Sponsorship Cost: \$25,000

Dollar Energy Fund's Golf Outing

Sponsorship Cost: \$25,000

Cool Down for Warmth Fundraiser

- Provided CPA Executive to sit in the Ice House until adequate funds were acquired for his release
- Donations totaled \$14,800 over the three year period

Columbia Sponsored Fundraising Event

TransSiberian Orchestra Concert

Sponsorship Cost \$15,000 (Benefit Range \$11,000-\$12,000)

Finding DEF-02 Company Fundraising

The Company ranks third highest in its contribution per customer revenues at 0.39 compared with 12 PA gas and electric utilities in 2015. They also are one of two companies in the state who offer electronic options for customers to donate to DEF and one of two companies who utilize social media for promoting DEF events and fundraisers.⁹²

⁹¹ CPA Data Response 1-DEF-Fundraising

⁹² CPA Data Response CAUSE 3-003 BCS Report on PA Utility DEF Fundraising

Customer Eligibility Requirements for DEF Grant

DEF is a fund of last resort

- Opening and closing dates for the program are established annually based on funding
- Households where gas service is off and are eligible for LIHEAP and LIHEAP Crisis benefits must first apply for those funds when available
- . The household income must be at, or below 200% of FPIG
- Customer must have a minimum average balance; and recently made a utility payment
- CAP customers are eligible if they are without service for non-pay during the months
 of October, November, or December, or if the customer has been out of CAP for
 more than one year
- For CAP reinstatements, Columbia will allow the Harship Fund grant to substitute as a customer payment
- Maximum grant amount is \$500
- Grants do not assist with security deposits or reconnection fees since all fees are waived for Hardship Fund recipients

Table 40 Dollar Energy Grants

Dollar Energy Fund	2015/2016	2014/2015	2013/2014	2012/2013
# of Customers	1,491	1,565	3,051	3,205
Average Grant Amt.	\$401	\$407	\$402	\$379

Finding DEF-03 DEF Grants

The average number of customers as well as the average grant amount has decreased over the past four year period. The Company reports that this decrease is attributable to customers who are in Income Level 1 who have never been on CAP and are not required to apply for DEF. More dollars are left for those customers who have no other avenues for funding.

HARDSHIP FUNDS CHANGES

Since 2012, the Company has undergone many changes to its Hardship Fund.

Significant changes included the use of supplier refunds to increase funding, elimination of the Citizen's Energy contract as part of the USP Rider, and changes to the processes in order to extend the benefits to non-CAP customers.⁹³

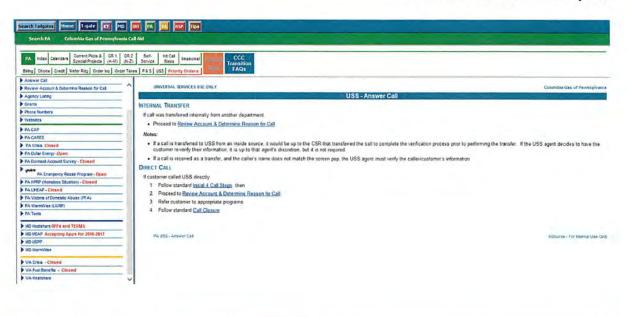
Table 41 Hardship Fund Changes

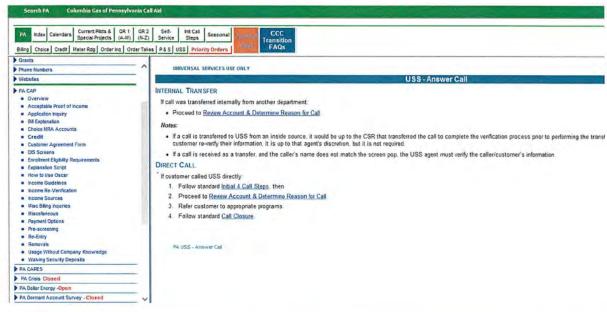
	2011	2012	2013	2014	2015	2016	2017
Hardship Funds		Requested supplier refunds/credits to fund Hardship Funds Increased funding substantially		Ended contract with Citizen's Energy and filed in rate case to have the \$375,000 as	prior to entering CAP.	Lost the option to use USP Rider funds as settlement of rate case.	Exploring Fundraising options to increase customer contributions
					Ipartner updated to improve Dashboards and provide agency enhancements		

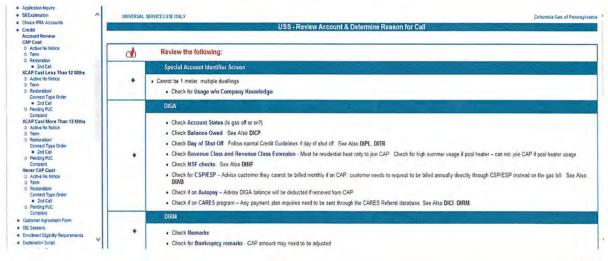
 $^{^{93}}$ CPA Ad Hoc Data Response US Program Changes 2011-2017

APPENDIXES

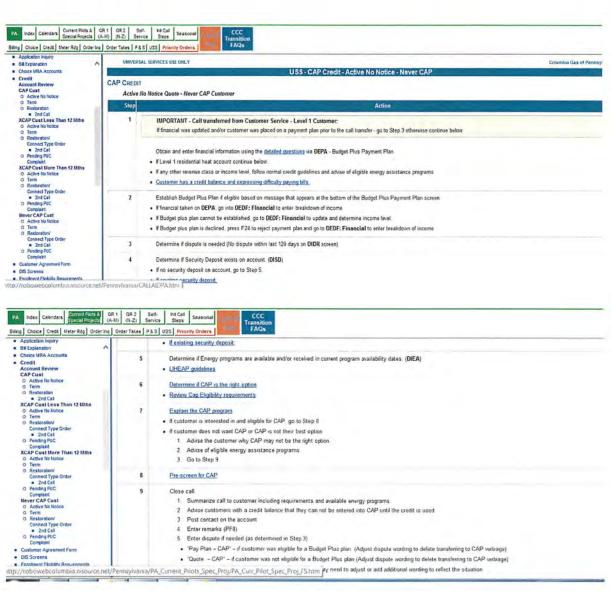
Appendix A Call Aid Screen Examples











Payment Plan Options

1. Percent of Income

0% - 110% of poverty guidelines pay 7% of income 110% - 150% of poverty guidelines pay 9% of income

2. Average payment

Average of payments for the last 12 months prior to joining CAP. Total customer payments divided by the number of months in service up to 12 months (i.e., customer makes seven payments in 12 months for a total of \$360. Divide \$360 by 12 = \$30.)

3. Percent of Bill

The May Promoted Budget multiplied by 50%. This will be recalculated every May

4. Minimum Payment

The lowest payment available is \$25

**This is a default payment plan. It is not given as a quote.

5. Senior CAP

75% of budget amount

- All above payment plans will have an additional \$5 toward co-pay if a pre-program balance exists.
- All above payment plans will have a CAP Plus amount added. See CAP Plus section for more details

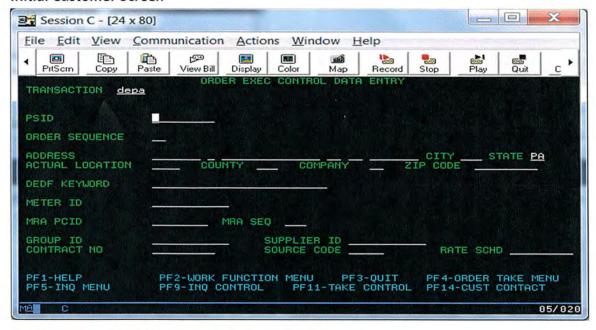
Guidelines for Selection

Columbia DIS mainframe will calculate and suggest the best option based on the following criteria:

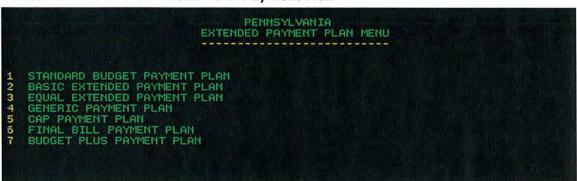
- 1. The minimum payment will be selected if the minimum payment is the highest option available.
- 2. Option #2 will be selected if option #2 (average payment) is the highest.
- Average options 1, 2 & 3. The option closest to the average will be selected. If two are equidistant, the higher option will be selected.
- If extenuating circumstances exist which would make a higher payment not affordable for a customer, another option may be suggested by the screening agency subject to approval by Dollar Energy CAP or Universal Services.
- Senior CAP is not factored into payment schedule.

If Option #1 is less than \$25, the minimum payment will be

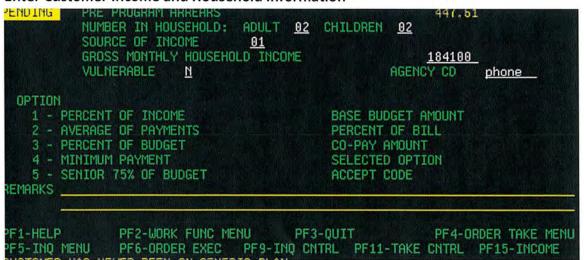
Initial Customer Screen



Select # 5 from the Plan Menu - CAP Payment Plan



Enter Customer Income and Household Information



DIS system selects lowest plan

VULNERABLE <u>M</u>		AGENCY CD	1.110112
- PERCENT OF INCOME	132	BASE BUDGET AMOUNT	92
- AVERAGE OF PAYMENTS		PERCENT OF BILL	42.39
- PERCENT OF BUDGET	42	CO-PAY AMOUNT	5
- MINIMUM PAYMENT	28	SELECTED OPTION	
- SENIOR 75% OF BUDGET	62	ACCEPT CODE	
(S	Market Market		A STATE OF

Once income is verified,

Option #3 is entered in the example below & Accept Code 01

```
PRE PROGRAM ARKEN
                                ADULT 02 CHILDREN
          NUMBER IN HOUSEHOLD:
          SOURCE OF INCOME
                                 01 WAGES
          GROSS MONTHLY HOUSEHOLD INCOME
                                                                      90%
                                                         1841.00
          VULNERABLE
                                                    AGENCY CD
                                                                  PHONE
                        N
          CRP #
                                 MAIL #
                                          SELF #
                  COL # AG X
                                                   TLMK #
 OPTION
   1 - PERCENT OF INCOME
                               132
                                            BASE BUDGET AMOUNT
                                                                      92
   2 - AVERAGE OF PAYMENTS
                                                                   42.39
                                28
                                            PERCENT OF BILL
   3 - PERCENT OF BUDGET
                                 42
                                                                       5
                                            CO-PAY AMOUNT
   4 - MINIMUM PAYMENT
                                 28
                                            SELECTED OPTION
                                                                3
01
   5 - SENIOR 75% OF BUDGET
                                62
                                            ACCEPT CODE
REMARKS ** enter @ pp3
                          ecipri
PF1-HELP
               PF2-WORK FUNC MENU
                                       PF3-QUIT
                                                          PF4-ORDER TAKE MENU
PF5-INQ MENU
               PF6-ORDER EXEC PF9-INQ CNTRL PF11-TAKE CNTRL PF15-INCOME
PLEASE ETLL IN ACCEPT CODE
```

Initial CAP Account Set Up

```
ANTWERHRIF W
JOIN DATE
               - 08/28/2017
                               CURR SOURCE OF INCOME

    WAGES

CURR START DATE - 08/28/2017
                               CURR NUMBER IN HOUSEHOLD
                                                                     4
               - 08/28/2018
                               CURR MONTHLY INCOME
CURR END DATE
                                                              1,841.00
RECENT REM DATE -
                               CURR PERCENT
                                                                 39.00
REVERIF DATE
                               CURR MONTH INSTALL\CO-PAY -
                                                                            5.00
ETTER DATE
                               CURR MONTH FLAT FEE
                                                                  3.00
CURR PILOT CODE -
                               ORIGINAL PRE PLAN BALANCE -
                                                                447.61
CAP PLAN STATUS
                  INITIAL
                               AGENCY CODE
                                                             PHONE
                            INSTALL CO-PAY
CAP CURR BILL DUE
                              0.00
                                       0 00
                                               PERCENT OF INCOME
TOTAL CAP BILLING AMT
                              0.00
                                               AVERAGE OF PAYMENTS -
CAP ARREARS AMT
                              0.00
                                       0 00
                                               PERCENT OF BUDGET
                                                                          42.00
TOTAL CAP REMOVED AMT
                              0 00
                                               MINIMUM PAYMENT
TOTAL CAP AMOUNT OWED
                              0.00
                                               EA INSTALL CREDIT
                                                                          0.00
   F2=WRK-FUN
                             F4=ORD-TAK
                  F3=QUIT
                                            F5=INO
                                                      F6=ORD-EX
                                                                    F8=FWD
9=INQ-CTL F10=EX-CTL
                          F11=TAK-CTL
                                         F14=CONTACT
                                                       PF15=INCOME
                                                                      PF24=CASH
CAP ACCOUNT - NO SUMMARY AVAILABLE
```

Supplement No. 235 to Tariff Gas – Pa. P.U.C. No. 9 Ninth Revised Page No. 139 Columbia Gas of Pennsylvania, Inc. Canceling Eighth Revised Page No. 139 Issued: August 7, 2015 M. R. Kempic Effective: July 8, 2015 President

RATE CAP - CUSTOMER ASSISTANCE PLAN

APPLICABILITY

Throughout the territory served under this Tariff.

AVAILABILITY

Available to any residential customer at one location using natural gas as their main heating source and meeting the following requirements:

- 1. This rate will serve 100% of the total requirements.
- 2. The total household income is equal to or less than 150% of the Federal Poverty Level.
- 3. The customer does not take service under any other rate schedule.
- 4. The customer is either over sixty years old or is payment-troubled (i.e., has at least one failed payment arrangement with the Company within the past 12 months, has received a termination notice from the Company within the past 12 months, has been verified as a current participant in another utility's CAP, or is unable to establish creditworthiness through the use of generally accepted credit scoring methodology).
- 5. The meter at the premise must serve only the customer's dwelling space.
- The customer must agree with the terms specified in the Company's CAP Customer Agreement Form.

CAP CUSTOMER APPLICATION AND RESPONSIBILITIES

In order to gain acceptance in CAP and to maintain participation in CAP after acceptance into the Program, a customer must agree to, and comply with, the following:

- 1. Verify gross monthly income for all adult household members at time of application.
- Reverify gross monthly household income annually. This requirement shall be waived in any year that the customer applies for, and receives, an Energy Assistance Grant that is posted to the Company.
- Notify the Company's Universal Services representative of any changes in income, household size, or residence.
- 4. Make timely monthly CAP payments, including a \$5.00 co-payment on arrears.
- (C)
 5. Apply for federal Low-Income Home Energy Assistance Program (LIHEAP) benefits, and direct the payment of LIHEAP to the Company.
- (C)
 6. Apply for any free weatherization service, including the Company's Warm Wise Program, as well as local county weatherization programs if the customer meets eligibility requirements.
 - 7. Release the Company from any liability associated with the customer's participation in CAP.
- (C) Indicates Change

Supplement No. 235 to Tariff Gas – Pa. P.U.C. No. 9 Eighth Revised Page No. 140 Columbia Gas of Pennsylvania, Inc. Canceling Seventh Revised Page No. 140 Issued: August 7, 2015 M. R. Kempic Effective: July 8, 2015 President

Rate CAP - CUSTOMER ASSISTANCE PLAN (Continued)

- 8. Agree not to use any non-essential gas appliance, such as a pool heater.
- 9. Allow the Company to purchase gas on the customer's behalf.

10. In the case of a CAP applicant who is currently without service, and who has a balance from a prior account, make an upfront payment in satisfaction of the prior balance up to, but no more than, \$150.

MONTHLY PAYMENT OPTIONS

The most affordable payment option for the eligible CAP customer shall be selected from the Options below. The monthly payment will not be less than the average payment received from the customer in the previous twelve (12) months. A minimum payment amount of twenty-five dollars (\$25.00) is required.

Option #1: Percentage of Income.

0 - 110% of Poverty = 7%

110 - 150% of Poverty = 9%

(C)

Option #2: Average of last 12 months of customer payments prior to joining CAP. (Available for customers with at least six months of uninterrupted service.)

Option #3: Flat rate of 50% of budget billing (adjusted annually)

Senior CAP Option: Flat rate of 75% of budget billing for all customers over 60 years of age with no arrears or payment arrangement default.

In addition to the monthly payment established under either Option #1, #2, #3, or Senior CAP Option, the CAP customer is required to pay a five-dollar (\$5.00) co-payment towards pre-program arrears, as well as an additional amount calculated each year based on the previous year's LIHEAP grants applied to CAP accounts ("plus amount"). The "plus amount" is determined by dividing the total LIHEAP cash dollars received on CAP accounts in the prior heating season by the number of current CAP customers. The monthly plus amount will be one-twelfth (1/12) of the final total. This amount will be calculated yearly and effective with the October billing cycle.

A CAP customer's monthly payment shall not exceed the non-CAP budget payment applicable to the customer's account, exclusive of the \$5.00 co-payment towards pre-program arrears. In the event that a CAP customer's monthly payment is determined to exceed the non-CAP budget payment applicable to the customer's account, the applicable information is reviewed to determine if the CAP payment should be lowered or if the customer should be removed from CAP.

SECURITY DEPOSITS

CAP customers will not be charged security deposits.

Any paid security deposits on accounts with an approved CAP application will be credited to the arrears prior to CAP enrollment.

Unpaid security deposits for customers entering into the CAP will be waived after income verification is complete.

(C) Indicates Change

Supplement No. 200 to Tariff Gas – Pa. P.U.C. No. 9 Fourth Revised Page No. 141 Columbia Gas of Pennsylvania, Inc. Canceling Second and Third Revised Page No. 141 Issued: June 13, 2013 M. R. Kempic Effective: July 1, 2013 President

RATE CAP - CUSTOMER ASSISTANCE PLAN (Continued)

(C)

REVERIFICATION

CAP Customers are required to reverify their income annually.

CAP customers 60 years and older who are also on Social Security or Disability Assistance are exempt from annual re-verification.

A customer who has been removed from CAP for failure to reverify will be re-entered into CAP immediately, once eligible proof of income is received.

DEFAULT PROVISIONS

Nonpayment of CAP During the Period April 1 through November 30

A CAP customer shall be considered to be in default after two-missed CAP payments, whether consecutive or not, and will be eligible for termination of service in compliance with the Termination of Service provisions of this tariff and all laws and regulations regarding termination of service. The termination notice will reflect all missed CAP payments.

In order to avoid termination of service, a CAP customer who has received a termination notice shall furnish a make-up payment as set forth in the termination notice prior to the scheduled termination date. The Company may, in its sole discretion, delay termination, but such delay shall not be deemed a waiver of the right to terminate service.

Nonpayment of CAP During the Period November 1 through March 31

During the period November 1 through March 31, a CAP customer will neither be removed from CAP nor receive a termination notice for failing to make monthly CAP payments.

Starting with the April 1th termination date, Columbia will issue termination notices to CAP customers who failed to pay CAP budget payments during the November to March period. The amount on the termination notice shall be for all missed CAP payments.

In order to avoid termination of service, a CAP customer who has received a termination notice shall furnish a make-up payment as set forth in the termination notice prior to the scheduled termination date. The Company may, in its sole discretion, delay termination, but such delay shall not be deemed a waiver of the right to terminate service.

Customers Requesting Removal

A customer requesting removal from CAP in writing shall be removed from CAP immediately upon the Company's receipt of such request. The customer may not reenter the CAP for one year after the time of requested removal.

(C) Indicates Change

Supplement No. 235 to Tariff Gas – Pa. P.U.C. No. 9 Sixth Revised Page No. 142 Columbia Gas of Pennsylvania, Inc. Canceling Fifth Revised Page No. 142

Issued: August 7, 2015 M. R. Kempic Effective: July 8, 2015 President

RATE CAP - CUSTOMER ASSISTANCE PLAN - (Continued)

Noncompliance with Weatherization Measures

The Company may, at its discretion, remove from CAP, or increase the monthly CAP payment for, a customer:

- Refusing a referral for weatherization services.
- 2. Who has received weatherization services, but who has not reduced monthly consumption.

Failure to Reverify Income

The Company will issue a letter to the customer 30 days prior to the customer's CAP participation anniversary date, notifying the customer of the requirement to reverify household income in order to remain in CAP. The Company shall remove from CAP any customer failing to reverify household income within 30 days after the anniversary date and 60 days after the initial notification that reverification of income is required.

RE-INSTATEMENT PRODECURES

The Company will re-instate to CAP customers who have been removed from CAP as follows:

- The customer must pay the entire balance of missed CAP payments including the five-dollar copay to the pre-program arrears.
- Any payments made by the customer after removal are deducted from the amount needed for program re-entry.
- 3. The pre-program arrearage will be the same at the time of reinstatement as at the time of default.
- Any charges incurred after default, which are not paid by the customer, are treated as current bill shortfall.
- This process also applies to CAP customers who move to a new service address with no interruption of service due to termination.

ARREARAGE RETIREMENT

(C)

A CAP customer will have their entire pre-program arrears forgiven in equal monthly installments over a three year period. Each installment will be forgiven upon receipt of a full monthly CAP payment. (C) Indicates Change Supplement No. to Tariff Gas – Pa. P.U.C. No. 9 Eighth Revised Page No. 143 Columbia Gas of Pennsylvania, Inc. Canceling Sixth and Seventh Revised Page No. 143 Issued: June 13, 2013 M. R. Kempic Effective: July 1, 2013 President

RATE CAP - CUSTOMER ASSISTANCE PLAN - (Continued)

(C) CAP AGGREGATION

A CAP customer is required to agree in writing to allow Columbia to act as an agent, on their behalf to contract for the purchase of gas supplies from a licensed natural gas supplier (NGS). At least quarterly, the Company will solicit Commission licensed NGSs to provide the CAP gas supply service at a discount in relation to the Company's applicable Purchased Gas Cost rates.

(C) RIDER PGC

The Pass-through Charge includes recovery of purchased gas costs pursuant to the Purchased Gas Cost Rider of this Tariff.

In the event that no licensed NGS responds to a quarterly solicitation to provide CAP gas supply service, the Company will provide natural gas supply to the CAP program participants, and the Gas Supply Charge to be used to determine current bill shortfall will include recovery of purchased gas costs pursuant to the Purchased Gas Cost Rider of this Tariff.

TERMS OF PAYMENT

The CAP monthly payment must be paid by the due date. Any customer found stealing gas will be charged separately from their CAP payment or billed separately for CAP prior to reconnection for the amount of the theft.

RULES AND REGULATIONS

The Rules and Regulations Governing the Distribution and Sale of Gas of this Tariff, which are not inconsistent with the provisions of this rate schedule, shall govern, where applicable, the supply of gas service under this rate schedule.

(C) Indicates Change

Supplement No. 238 to Tariff Gas – Pa. P.U.C. No. 9 Twenty-seventh Revised Page No. 146 Canceling Twenty-fifth and Columbia Gas of Pennsylvania, Inc. Twenty-sixth Revised Page No. 146

Issued: December 15, 2015 Mark Kempic Effective: December 18, 2015 President

RIDER USP - UNIVERSAL SERVICE PLAN

APPLICABILITY

Throughout the territory served under this Tariff.

AVAILABILITY

This Rider shall be applicable to all residential customers except customers in the Company's Customer Assistance Plan ("CAP").

CHARACTER OF RATE

This Rider has been established to recover costs related to the Company's Universal Service and Conservation Programs.

RATE

The Rider USP rate shall be included in the Pass-through Charges on the customer's bill for Rate Schedules RSS, and RDS. The Rider USP shall not be billed to customers being served on Rate CAP. The rate information is detailed in the Rate Summary pages of this Tariff.

CALCULATION OF RATE

The Rider USP rate shall be calculated to recover costs for the following programs: Low Income Usage Reduction Program (LIURP); Customer Assistance Program (CAP); and the WarmWise® Audits and Rebates program; and the Emergency Repair Program (ERP).

(C)

LIURP costs will be calculated based on the projected number of Level 1 income homes to be weatherized. WarmWise® Audits and Rebates program costs will be calculated on the projected number of Level 2 income homes provided with an energy audit, programmable thermostat and/or rebates.

(C)

CAP costs will be calculated to include the projected CAP Shortfall (the difference between the total calculated RSS bill excluding Rider CC and Rider USP and the CAP bill) based upon the current discounts at normalized annual quantities of the then-current CAP participants, the projected CAP Shortfall for projected customer additions to CAP during the period that the USP Rider rate will be in effect at the average discount of current CAP participants at normalized annual quantities, the projected CAP customer application and administration costs, the projected CAP pre-program arrearages to be forgiven and written off during the next 12 months.

If the Company is successful in obtaining a CAP gas supply aggregator as provided in Rate CAP-Customer Assistance Plan, then the shortfall will be adjusted to reflect the RDS rate plus the gas costs resulting from the aggregation service.

The costs shall be divided by the total annual projected throughput quantities of all residential non-CAP customers as established in the Company's most recent Purchased Gas Cost proceeding to determine the rate per thm for this Rider.

(C) Indicates Change

Supplement No. 251 to Tariff Gas - Pa. P.U.C. No. 9 Twenty-fifth Revised Page No. 147 Columbia Gas of Pennsylvania, Inc. Canceling Twenty-fourth Revised Page No. 147 Issued: December 14, 2016 Mark Kempic Effective: December 19, 2016 President RIDER USP - UNIVERSAL SERVICE PLAN - Continued

QUARTERLY ADJUSTMENT

Each quarter, and at any time that the Company makes a change in base rates or Purchased Gas Cost rates affecting residential customers, the Company shall recalculate the Rider USP rate pursuant to the calculation described above to reflect the Company's current data for the components used in the USP rate calculation. The Company shall file the updated rate with the Commission to be effective one (1) day after filing.

ANNUAL RECONCILIATION

On or before April 1 each year, the Company shall file with the Commission data showing the reconciliation of actual revenues received under this Rider and actual recoverable costs incurred for the preceding twelve months ended December. The resulting over/undercollection (plus interest calculated at 6% annually) will be reflected in the CAP quarterly rate adjustment to be effective April 1. Actual recoverable costs shall reflect actual application costs, actual LIURP costs, and actual WarmWise® Audits and Rebates program costs. Actual recoverable costs shall also reflect actual shortfall costs and actual pre-program arrearages, provided that CAP participation on an average annual basis for the preceding year did not exceed 23,000 participants. In the event that CAP participation in the preceding year exceeded 23,000 on an average annual basis, actual recoverable costs shall reflect actual shortfall cost and actual pre-program arrearages for all customers up to the 23,000 participation level. For any and all CAP customers exceeding the 23,000 participation level on an average annual basis, Columbia shall offset the actual shortfall and actual pre-program arrearages by 7.5%. Except for the offset that is applied when CAP participation exceeds 23,000 on an average annual basis, actual CAP shortfall costs shall be based upon actual numbers of CAP customers, actual CAP throughput quantities, actual CAP payments received.