

**IN THIS ISSUE**

**Independent Third-Party Evaluations of Pennsylvania Energy CAPs Show Improved Payment Patterns Due to Reduced Energy Burdens**

**NOTE TO READERS**

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**INDEPENDENT THIRD PARTY EVALUATIONS  
OF PENNSYLVANIA CAPS FIND PAYMENTS  
IMPROVE WHEN ENERGY BURDENS ARE  
MADE MORE AFFORDABLE**

The water industry has done very little, if any, work to assess the payment impacts of improving the affordability of water burdens. However, a number of affordability programs adopted by energy (i.e., natural gas and electric) utilities have demonstrated affordable rates can break the cycle of nonpayment.

For more than 30 years, affordability programs have been implemented by Pennsylvania's gas and electric distribution utilities. At the direction of the Pennsylvania Public Utility Commission (PUC), independent third-party firms have evaluated these programs. The independent evaluation results for six Pennsylvania gas and electric distribution utilities are presented in the Table below. The evaluation results span a number of years, indicating that these results are not a function of any particular external factor that may have existed in a particular year. The results include four electric utilities and two natural gas utilities.

The results presented below involve the "payment coverage ratio." This ratio documents the percentage of bills that have been paid. The ratio places the dollars of bills in the denominator and the dollars of payment in the numerator. If the payment coverage ratio is 100%, payments exactly equal the bills. If the payment coverage ratio is less than 100%, customers are incurring arrears. If it is more than 100%, customers are retiring arrears.

**Total Bill Payment Coverage Ratios  
Low-Income Customer Assistance Program (CAP) Participants  
(Pennsylvania)**

	Test Year Enrollees			Net Change Relative to Comparison Group
	Pre-CAP	In CAP	Change	
PGW (2019) <sup>1</sup>	72%	92%	20%	36%
PPL (non-htg) (2020) <sup>2</sup>	84%	98%	15%	21%
PPL (heating) (2020)	83%	104%	21%	26%
Peoples Gas (2017) <sup>3</sup>	85%	123%	39%	36%
First Energy (Met Ed) (non-htg/htg) <sup>4</sup>	NA	91%/93%	NA	NA
First Energy (PN) (Non-htg/htg)	NA	91%/119%	NA	NA
First Energy (PP) (non-htg/htg)	NA	100%/98%	NA	NA
UGI (electric) (2012) <sup>5</sup>	60%	66%	5%	18%
Duquesne Light (non-htg) (2015) <sup>6</sup>	77%	94%	17%	31%
Duquesne Light (htg) (2015)	75%	92%	17%	23%

<sup>1</sup> APPRISE, Inc. (March 2019). Philadelphia Gas Works Universal Service Programs Impact Evaluation, Final Report, available at <https://www.puc.pa.gov/pcdocs/1614503.pdf>.

<sup>2</sup> APPRISE, Inc. (January 2020). PPL Electric Utilities Universal Service Programs, Final Report, available at <https://www.puc.pa.gov/pcdocs/1656535.pdf>.

<sup>3</sup> APPRISE, Inc. (August 2017). Peoples Natural Gas 2017 Universal Service Program, Evaluation, Final Report, available at [https://www.puc.pa.gov/General/pdf/USP\\_Evaluation-Peoples.pdf](https://www.puc.pa.gov/General/pdf/USP_Evaluation-Peoples.pdf).

<sup>4</sup> APPRISE, Inc. (January 2017). FirstEnergy Universal Service Programs, Final Evaluation Report available at [https://www.puc.pa.gov/general/pdf/USP\\_Evaluation-FirstEnergy.pdf](https://www.puc.pa.gov/general/pdf/USP_Evaluation-FirstEnergy.pdf).

<sup>5</sup> APPRISE, Inc. (July 2012). UGI Utilities, Inc. – Gas Division and UGI Penn Natural Gas, Inc. Universal Service Program, Final Evaluation Report available at [https://www.puc.pa.gov/general/pdf/USP\\_Evaluation-UGI.pdf](https://www.puc.pa.gov/general/pdf/USP_Evaluation-UGI.pdf).

<sup>6</sup> APPRISE, Inc. (July 2015). Duquesne Light Universal Service Programs, Final Evaluation Report, available at [https://www.puc.pa.gov/general/pdf/USP\\_Evaluation-Duquesne.pdf](https://www.puc.pa.gov/general/pdf/USP_Evaluation-Duquesne.pdf).

## The Pennsylvania Findings

The results presented in the Table above show the total “bill payment coverage ratio” for participants in the various low-income discount programs of the Pennsylvania utilities, called Customer Assistance Programs (“CAPs”). The bill payment coverage ratio places dollars of payments in the numerator and dollars of bills in the denominator to determine the percentage of bills that have been paid.

The Table makes two comparisons.

- First, the Table shows the bill payment coverage ratio for the year before participants enrolled in CAP and bill payment coverage ratio for the first full year of CAP participation.
- Second, the Table shows the percentage change for CAP participants (pre-CAP vs. in-CAP) compared to the “net change” relative to a low-income comparison group. The net change subtracts the change within the comparison group from the change in the CAP participant group.

If the bill payment coverage ratio for the CAP participants improved by 15%, for example, and the payment coverage ratio for the comparison group improved by 3%, the net change for CAP participants is 12%. In contrast, if the payment coverage ratio for CAP participants improved by 15%, and the payment coverage ratio for the comparison group declined by 3%, the net change for the CAP participants is 18%.

The “net change,” in other words, is the change for CAP participants relative to what their change would have been had they been in the comparison group.

The three First Energy utilities (Metropolitan Edison; Penn Power; Penelec) did not have pre-CAP data or comparison group data presented in their program evaluation. First Energy’s evaluation presented only the in-CAP bill payment coverage ratios.

The Table above shows not only that in-CAP low-income payment performance resulted in payments of consistently between 90% and 100% (or more) of low-income bills, but the Table also shows that the bill payment performance significantly improved once a low-income customer enrolled in the percentage of income-based CAP.

Setting aside UGI (electric) as an outlier (UGI also has a natural gas division, the program for which was not included in UGI’s evaluation),<sup>7</sup> the lowest in-CAP payment coverage ratio was 92% (Duquesne Light heating: up from 75%; Philadelphia Gas Works: up from 72%).

The smallest improvement in payment coverage ratios (considering only the pre- versus post-participation data) was 15% (Penn Power and Light, PPL), and that increase was from 84% prior to CAP participation to 98% during CAP participation.

### Ease of Bill Payment

The Pennsylvania research not only demonstrates that bill payment patterns improved, but also provided insights into the *reason* for the improved payment patterns can be derived from the data presented in Schedule 1 to this Newsletter, derived from the same independent third-party evaluations of the low-income programs. This Schedule reports data on

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<sup>7</sup> For purposes here, UGI (electric) will be referred to simply as “UGI.”

the ease or difficulty of bill payment reported by program participants before enrolling in the discount program and while being enrolled in the discount program. (Not all utility evaluations undertook this data collection and analysis.)

When taking into consideration the performance of each comparison group, even UGI's performance demonstrates the role played by the CAP in improving bill payment. While the improvement within the participant group (pre-participation vs. in-participation) was 5%, UGI (electric)'s net change relative to its comparison group was 18% (meaning that while performance improved within the participant population, payment performance declined by 13% in the comparison group). Amongst all utilities the net improvement in bill payment coverage ratios relative to the comparison groups ranged from roughly 20% to more than 35% amongst the various evaluations.

The difference that the low-income programs make is evident at both ends of the spectrum of bill payment difficulty (ease). The Schedule shows that for each utility, there was a substantial decline in the percentage of program participants who reported finding it "very difficult" to make their bill payments.

In addition, for each utility, there was a substantial increase in the percentage of program participants who reported finding it "not at all difficult" ("very easy") or "not too difficult" ("somewhat easy") to make bill payments during program participation.

- For PPL, while 63% reported finding it very difficult to make bill payments before program participation, only 3% reported it being very difficult after enrolling in CAP. In contrast, while 5% reported it being not at all difficult (very easy) to make bill payments before program participation, 34% reported it

being not at all difficult after enrollment. Similarly, the change in the percentage reporting it being "somewhat easy" ("not too difficult") increased from 10% prior to program participation to 47% after program enrollment.

- For Peoples Gas, while 58% reported finding it very difficult to make bill payments before program participation, only 5% reported it being very difficult after CAP enrollment. While 4% reported it being "very easy" ("not at all difficult") to make bill payments before program participation, and 5% reported it being "somewhat easy" ("not too difficult") before program participation, 34% said it was "very easy," and 47% said it was "somewhat easy" to make bill payments after enrollment.
- For the FirstEnergy utilities, while 56% reported it being very difficult to make bill payments before program participation, 13% reported it being very difficult to make bill payments after enrollment. In contrast, while 3% said it was "very easy" (not at all difficult), and 4% said it was "somewhat easy" (not too difficult) to make bill payments before program participation, those numbers increased to 26% and 36% respectively after program enrollment.

Similar results were found for both UGI (electric) and Duquesne Light. The percentage of low-income customers finding it "very difficult" to pay their bills before program participation dropped from 67% to 7% for UGI (electric), and from 49% to 2% for Duquesne Light. The percentage of low-income customers who reported finding it "very easy" (not at all difficult) to pay their bills increased from 0% to 26% for UGI (electric) and from 1% to 36% for Duquesne Light. The percentage who reported it

being “somewhat easy” (not too difficult) increased from 6% to 33% for UGI (electric) and from 9% to 53% for Duquesne Light.

### **Summary**

Independent third party evaluations of Pennsylvania’s low-income energy affordability programs, implemented by both natural gas and electric distribution utilities, have been documented over the course of many years, indeed decades, of operation that reducing home energy burdens for low-income customers generates improved bill payment patterns.

Persons wanting copies of the evaluations, can write to request such copies to:

roger [at] fsconline.com

Fisher, Sheehan and Colton, Public Finance and General Economics (FSC) provides economic, financial and regulatory consulting. The areas in which *FSC* has worked include energy law and economics, fair housing, affordable housing development, local planning and zoning, energy efficiency planning, community economic development, poverty and telecommunications policy, regulatory economics, and public welfare policy.

Difficulty of Low-Income Customers in Making Bill Payments (Pennsylvania Gas and Electric Distribution Utilities)										
	PPL (2020)		Peoples Gas (2017)		First Energy (2017) (combined, ME, PP, PN)		UGI (electric) (2012)		Duquesne (non-heating & heating) (2015)	
	Before PIP	In PIP	Before PIP	In PIP	Before PIP	In PIP	Before PIP	In PIP	Before CAP	In CAP
Very difficult	63%	3%	58%	5%	56%	13%	67%	7%	49%	2%
Somewhat difficult	19%	16%	30%	25%	35%	23%	22%	35%	38%	8%
Somewhat easy/Not too difficult	10%	47%	5%	35%	4%	36%	6%	33%	9%	53%
Very Easy/Not at all difficult	5%	34%	4%	33%	3%	26%	0%	26%	1%	36%
Don't know	2%	0%	1%	1%	1%	1%	5%	0%	2%	1%
Refused	0%	0%	2%	1%	1%	1%	0%	0%	0%	0%
Total	99%	100%	100%	100%	100%	100%	100%	101%	99%	100%