

**STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION**

**In the Matter of the Application by))
CenterPoint Energy Resources Corp. d/b/a) PUC Docket No. G-008/GR-19-524
CenterPoint Energy Minnesota Gas for))
Authority to Increase Natural Gas Rates))
in Minnesota))**

**DIRECT TESTIMONY OF
TAMMY AGARD
ON BEHALF OF
THE CITY OF MINNEAPOLIS**

JULY 15, 2020

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1 **I. INTRODUCTION**

2 **Q: Please state your name, occupation, and business address.**

3 **A:** My name is Tammy Agard. I am the President and Chief Executive Officer of EEtility, Inc.
4 and I am testifying on behalf of the City of Minneapolis as an expert witness in this docket.
5 My business address is 2220 South Arch Street, Little Rock, Arkansas 72206.

6 **Q: Please summarize your professional experience.**

7 **A:** I co-founded EEtility, a Benefits Corporation,¹ in 2014. Prior to founding EEtility, I was
8 the Manager of Operations for the Clinton Climate Initiative’s Home Energy Affordability
9 Loan (HEAL) Program, an energy efficiency on-bill loan type program created in Arkansas
10 in 2008. In late 2015, EEtility had its first experience operating the Pay As You Save®
11 (PAYS®) system for the Ouachita Electric Cooperative Corporation in the Southern
12 Arkansas’ Delta region. The success of PAYS® system in this cooperative, discussed in
13 detail below, spurred EEtility to expand this program to some of the poorest communities
14 across the Southeast United States. With no credit checks, no personal debt, and no
15 homeowner requirement, EEtility now operates all-inclusive PAYS® based programs for
16 three Rural Electric Cooperatives in three states: Arkansas, Tennessee and North Carolina.
17 By mid-September of 2020, EEtility will launch a \$5 million PAYS® program for Georgia
18 Power in the cities of Athens and Atlanta. Pending expected final Commission approval,
19 EEtility will launch a \$15 million PAYS program for Ameren Missouri, , an electric and
20 gas investor owned utility, in January of 2021 in the City of St. Louis. EEtility is actively

¹ A definition for “Benefit Corporations” can be found at B-Lab Benefit Corporation FAQ (2020) <https://benefitcorp.net/faq>.

1 in discussions with six additional investor-owned utilities and two large municipalities
2 representing five additional states. EEtility is the only Program Operator licensed to operate
3 programs in multiple states using the PAYS® intellectual property developed by the
4 system's creators, the Energy Efficiency Institute, Inc.

5 Additionally, I received national recognition in 2018 from ACEEE as a Champion of
6 Energy Efficiency in Buildings to expand the access of energy efficiency financing to
7 underserved populations. I currently serve on the Southeast Energy Efficiency Alliance's
8 (SEEA) board and I am a frequent speaker on the topic of tariffed on-bill programs with a
9 particular expertise on service delivery of the PAYS® system. I am a frequent and recurring
10 speaker at the Department of Energy's annual Better Buildings conference having
11 presented as a subject matter expert on PAYS® several times.

12 **Q: Have you ever served as an expert witness before any commission? If so, please**
13 **provide additional information about said experience (i.e., the docket #, purpose of**
14 **docket, subject matter, and result)?**

15 **A:** No, I have never been an expert witness in any previous commission matter.

16 **Q: Was your testimony, including associated schedules and exhibits, prepared by you**
17 **or under your control and direction?**

18 **A:** Yes. I prepared this written testimony with the assistance of City of Minneapolis
19 Attorneys' Office to ensure it met and was submitted in compliance with the procedural
20 rules of the ALJ; however, everything prepared herein was done under my control and
21 direction as an expert witness.

22 The attached schedules are as follows:

- 23 • **Schedule B1:** CV of Tammy Agard, CEO EEtility, Inc.

- 1 • **Schedule B2:** PAYS Essential Elements and Minimum Program Requirements
- 2 • **Schedule B3:** Energy Efficiency Institute, Inc. 2019 Program Status Update

3 **Q: What is the purpose of your testimony?**

4 **A:** The purpose of my testimony is to provide support for the City of Minneapolis’s proposed
5 Inclusive Financing Tariff using the PAYS® model. Specifically, I will (1) discuss the
6 significant impact the PAYS® model has made in each of the three programs EEtility has
7 operated, focusing on the demonstrated results of these programs; (2) review the
8 importance of the PAYS® model to our implementation of these successful programs; and
9 (3) describe how the successful application of the PAYS® model has thus far proven that
10 post-upgrade energy savings realized have exceeded the annual PAYS charges.

11 **II. THE PAYS® SYSTEM**

12 **Q: Please describe your assessment of the PAYS® system.**

13 **A:** As noted above, in late 2015, EEtility had its first experience operating the PAYS® system
14 for Ouachita Electric Cooperative Corporation, a small cooperative located in the Southern
15 Arkansas Delta region. The cooperative has approximately 4,000 residential meters and
16 EEtility had been operating their on-bill loan program for the previous two years. After
17 changing the mechanism of the program from a loan to the PAYS® tariff, the results were
18 staggering. Participation rates tripled in half the program time and the average size of each
19 job in terms of cost and resulting savings doubled. Single-family renters and multifamily
20 tenants can now participate. Because PAYS relies on future savings to pay for current work,

1 and because PAYS® requires estimated savings follow the PAYS® 80% Rule,² enrollees
2 with the most energy intense homes rarely have upfront copays required for upgrades
3 costing thousands of dollars. Participants start saving money the moment energy efficiency
4 measures are installed.

5 For example, in the Ouachita Electric Cooperative service territory, we upgraded
6 an 85-unit multifamily complex where the average rent is \$375 a month. All 85 tenants
7 were offered access to the PAYS® program where, in exchange for accepting an added
8 fixed tariff charge typically in the range of \$45 to \$50 monthly (\$540 to \$600 annually),
9 they would avoid having to pay approximately \$720 in annual energy charges based on
10 current rates. All participants accepted the offer. All tenants accepted the offer. Within the
11 first year, more than one quarter of the tenants in the complex had moved, and the successor
12 customers in those units have continued to enjoy the benefits of lower bills and more
13 comfortable homes. All units received cost-effective air sealing, duct sealing and
14 insulation, LED light bulbs and highly efficient HVAC units that were bulk purchased by
15 installation contractors at twenty percent off below the manufacturer's suggested retail
16 price (MSRP). The average upgrade per unit investment made by Ouachita Electric was
17 just over \$5,500. In addition to recovering its cost for upgrades, including its cost of capital,
18 Ouachita Electric continues to enjoy a program wide range of 1.5 to 2 KW reduction in
19 peak demand per meter, which adds value to the utility during periods of high demand
20 driven by extreme weather. Today, over ten percent of its customers are participating in the

² The PAYS® 80% Rule states that participants only pay up to 80% of the annual energy savings in program service charges over 80% of the estimated life of the improvement or a maximum of 12 years as proposed in this tariff.

1 HELP PAYS® program. There have been no disconnections for failure to pay any tariff
2 charge to date in any PAYS program that EEtility operates.

3 Since late 2017, EEtility has also overseen upgrades to more than nine percent of the
4 households served by Roanoke Electric Cooperative in North Carolina. EEtility launched
5 another PAYS program with Appalachian Electric Cooperative in Tennessee late last year.
6 So far, out of 90 offers to upgrade, 63 had already been completed before COVID-19
7 caused the program to be temporarily halted, and at least seven more are waiting for their
8 upgrades as soon as restrictions are lifted. Conversion rates between the three programs are
9 consistently 83% to 86% when EEtility is able to identify a bundle of cost-effective
10 upgrades and make an offer with no customer copayment required.

11 As a consumer protection, the PAYS® model also requires the utility, or the utility's
12 Program Operator, such as EEtility, to investigate if a participant is not saving at least what
13 the participant is paying on an annual basis. EEtility requires 100% quality control
14 inspection of contractors' work for every job we assign but even then, a failure of an
15 upgrade can show itself sometime later. That is why EEtility requires utilities working with
16 our firm to provide us with post-installation billing data of upgraded homes. We use this
17 data to look for anomalies, or homes which are not receiving sufficient savings to cover
18 their charges. After we investigate and determine the cause of the lower than estimated
19 savings, and if the problem is contractor-related, our protocol is to require the contractor
20 return and fix the problem at no charge. The PAYS® system requires the contractor to agree
21 to accept our determination ahead of time as a term of their contract with us. If we
22 determine the failure is participant-related or based on a behavior change then we educate
23 the participant about the reasons for the lower than expected savings caused by the failure

1 or change in usage. If the behavior change is a result of a customer using more energy
2 services to accommodate more occupants in the household or a new small business
3 operating out of their home, that is their free choice to make, and we help show that those
4 choices have not damaged the upgrades or their energy saving performance compared to
5 the inefficient equipment that was replaced. The PAYS® system requires participants, as a
6 condition of their contract with a Program Operator, to agree to accept our determination
7 of the cause. Nevertheless, grievance pathways remain open through binding arbitration or
8 complaints filed with the state utility commission, neither of which have ever been sought.
9 In any case, if a participant is not receiving sufficient savings to cover PAYS charges
10 through no fault of their own, then the charges at that location must stop until the upgrade
11 can be repaired or replaced. If the failure cannot be repaired or replaced, then the charges
12 must end. Out of all of the homes EEtility has overseen to date, only five or six have needed
13 to be investigated. Of that number, I believe only one problem was contractor-related and
14 that problem was quickly fixed; the others were related to participant-education issues,
15 which were addressed.

16 The PAYS® system has transformed lives in some of the poorest communities in
17 the country by improving energy efficiency of homes (thereby improving housing stock),
18 creating jobs in local economies, and lowering energy burden for those most vulnerable. It
19 is my professional opinion that there is not another all-inclusive product, system, or
20 program in the country that is capable of coming close to its potential at scale. The PAYS®
21 system, with all of its essential elements is sustainable, equitable, socially just, does no
22 harm, helps local economies, adds to consumer choice, creates jobs, It makes it possible to

1 capitalize upgrades to homes and buildings to develop the cleanest and most cost effective
2 energy resource we have.

3 **Q: Please explain the relevance of the PAYS® tariff to your successful operation of**
4 **PAYS® programs.**

5 **A:** It should be emphasized that, although the opportunities PAYS® offers to customers are
6 simple to understand and so attractive that at first they may sound too good to be true,
7 PAYS® itself is an integrated system. Each element of the PAYS® tariff is a component in
8 that system. A copy of the essential elements and minimum program requirements is
9 attached as Schedule 2.

10 Each element of the tariff is critical to scaling up a successful operation for
11 participants, ratepayers, and the implementing utility. Though I know all elements are
12 essential, I will focus on four specific items from the City's filed tariff in my Testimony
13 that may help to illustrate the importance of each item.

14 Item 1 in the City's tariff may appear simple:

15 *Eligibility: Eligible on an optional and voluntary basis to any residential customer*
16 *who takes service under any rate schedule for energy efficiency improvements (upgrades)*
17 *where the utility provides gas service to the structure. The utility must ensure that customers*
18 *who are interested in participating are notified that if they are income qualified, they may*
19 *also be eligible for free energy improvements through other programs and provide contact*
20 *information.*

21 This tariff requirement emphasizes two things: first, all residential customers can
22 and are eligible to participate. Secondly, it makes the implementing utility responsible for
23 connecting customers are notified before they even receive a site visit that they can seek

1 free or lower cost weatherization services if they are income-eligible and the contact
2 information for those programs is provided. This second element is a modification to the
3 PAYS® model tariff that the City of Minneapolis requests based on stakeholder input.

4 Items 3 and 3.2 in the City's tariff address some of the key ways the system assures
5 participants save more than they pay. They are foundational to what makes PAYS®
6 successful.

7 *Item 3: Energy Efficiency Plans: The utility will have its Program Operator*
8 *perform a cost-effectiveness analysis and prepare an Energy Efficiency Plan (Plan)*
9 *identifying recommended upgrades to improve energy efficiency and lower energy costs.*

10 *Item 3.2: Net Savings: Recommended upgrades shall be limited to those where the*
11 *annual Program Service Charges (Service Charges), including program fees and the*
12 *utility's charges for capital, are no greater than 80% of the estimated annual savings to a*
13 *participating customer based on current retail rates for gas and electricity.*

14 In answer 4 of my testimony, I described some of the details of the Energy
15 Efficiency Plans we present to customers. Each plan must be based on an on-site
16 engineering analysis of potential upgrades, using an analysis tool produced by OptiMiser
17 Energy. EEtility has worked with OptiMiser Energy to customize their software to our
18 specifications. The PAYS® 80% rule provides sufficient margin of error that minor changes
19 in weather, behavior or variation in a specific structure's performance do not prevent
20 participants from saving more than they pay on an annual basis.

21 Item 7.9 addresses a major consideration with the PAYS® system: *Disconnection*
22 *for Non-Payment: Without regard to any other Commission or utility rules or policies, the*
23 *Service Charges shall be considered an essential part of the customer's bill for gas service,*

1 *and the utility may disconnect the metered structure for non-payment of Service Charges*
2 *under the same provisions as for any other service. If service is disconnected for customers*
3 *on pre-paid payment plans, Service Charges will be pro-rated by the day.*

4 Consumer advocates have good cause to be alert and sensitive to any utility policy
5 that relates to disconnection for non-payment. PAYS charges are treated the same as any
6 other utility charge for essential services for which non-payment ultimately can result in
7 disconnection. The PAYS® programs that EETility operates have produced even better
8 than 99.9% cost recovery rates reported by other PAYS® programs, which is better than
9 all our implementing utilities' typical cost recovery for their other charges, as shown in
10 Schedule 3. Some participants ask early on if they really have to pay the charges; will they
11 be disconnected if they do not pay? When we answer yes, they must pay (what will then
12 be a *lower* bill) or they will be disconnected, customers understand payment of PAYS
13 charges is not optional because it is part of the utility services being provided to that
14 location, so it will be treated the same as all other utility charges for essential services.

15 As noted above, no participant in EETility's operated- PAYS® programs has been
16 disconnected for failure to pay. The discipline of disconnection for non-payment that is the
17 primary security of virtually all utility tariffs threat ensures that utility cost recovery
18 benefits the utility and all ratepayers. However, the PAYS® 80% rule, our careful
19 assessment of energy savings, and our ongoing quality control have ensured that all
20 participants can pay lower bills; and they have done so.

21 Finally, Item 8 illustrates how the PAYS® system apportions risk where it belongs.

22 *Repairs: Should, at any future time during the billing of Service Charges, the*
23 *utility [or the Program Operator] determine that the installed upgrades are no longer*

1 *functioning as intended and that the occupant, or building owner if different, did not*
2 *damage or fail to maintain the upgrades in place, the utility shall reduce or suspend*
3 *the Service Charges until such time as the utility and/or its contractor can repair the*
4 *upgrades. If the upgrades cannot be repaired or replaced cost effectively, the utility will*
5 *waive remaining charges.*

6 *If the utility [or the Program Operator] determines the occupant, or building*
7 *owner if different, did damage or failed to maintain the upgrades in place as described*
8 *in Section 7.4, it will seek to recover all costs associated with the installation, including*
9 *any fees and legal fees, and it may seek to recover incentives paid to lower project*
10 *costs. The Service Charges will continue until utility cost recovery is complete as long*
11 *as the upgrades continue to function.*

12 If customers, through no fault of their own, fail to realize sufficient savings to cover
13 their annual PAYS charges, EUtility investigates. Charges stop if upgrades have failed and
14 are not quickly repaired. If the upgrade can be repaired, it is. Charges are restarted,
15 lowering program costs for utilities and all ratepayers. If the contractor is responsible, they
16 are required to fix the problem at their cost, lowering program costs for utilities and all
17 ratepayers. If the upgrade has failed during its warranty period or due to a design defect,
18 the manufacturer must fix or replace it, lowering program costs for utilities and all
19 ratepayers. And if the owner, participant, or occupants removed, damaged, or failed to
20 maintain the upgrade, they will be held responsible, lowering program costs for utilities
21 and all ratepayers.

1 **Q: Please explain why EEtility’s service delivery protocols and process will result in**
2 **installation of more upgrades for lower costs than those cited in the Cadmus**
3 **Group’s Tariffed On Bill Financing study.³**

4 **A:** First, the air sealing prices indicated in the Cadmus study seem to suggest whole house air
5 sealing as the only presumed strategy. In EEtility-operated PAYS programs, we use a
6 different strategy because participants, many of them low- moderate-income customers and
7 renters, will be charged for the cost of upgrades. We consider cost an important variable in
8 our determination of air and duct sealing.

9 EEtility’s air and duct sealing strategies include only the amount of cubic feet per
10 minute (CFM) leakage reduction and tasks that are considered cost effective following the
11 PAYS 80% rule. EEtility does not try to achieve the structures minimum ventilation rate
12 (MVR) unless doing so is sufficiently cost effective based on the 80% rule. Identifying
13 areas that require as little time to seal and result in the largest amount of air leakage is
14 EEtility’s goal, not meeting MVR.

15 The second reason that more upgrades for lower costs will be achieved than
16 predicted by the Cadmus study is quite simply that the study does not include a lot of low-
17 cost upgrades that can result in significant savings, helping other upgrades to qualify under
18 the 80% rule. For example, adding water heater insulation and up to 8 feet of pipe insulation
19 can also reduce significant energy waste. Installing a low-flow showerhead and sink
20 aerators can reduce water and hot water bills. For example, in California, a single shower

³ The Cadmus Group, *Tariffed On-Bill Financing Feasibility: Assessment of Innovative Financing Structures for Minnesota* (Aug. 2019) available at http://energytransition.umn.edu/wp-content/uploads/2019/08/Minnesota-TOB-Financing-FINAL_AH-1.pdf.

1 head with a low flow model used for six minutes a day can produce enough savings to
2 justify replacing a toilet that meets code with a highly efficient one. Combined, in our
3 experience, including these low-cost upgrades can lower or eliminate copayments that
4 would otherwise be needed in many instances.

5 The third reason we expect higher savings than estimated in the Cadmus analysis
6 results from its treatment of heat pump retrofits. The Cadmus study drew upon data that
7 assumed efficiency in existing equipment is based on current code. In EEtility's experience,
8 units in high energy intense homes are often at least 10 years old. All of the units we replace
9 are operating at efficiency levels far less than posted rating tags imply. As for the new units,
10 the prices used in Cadmus' study seem to be full retail, but in practice, do not reflect volume
11 pricing discounts that we have seen achieved where PAYS® programs are available.

12 In summary, our experience has shown that having all of the cost effective tools in
13 our tool box to choose from, identifying specific cost-effective contractor installation
14 strategies and incorporating volume pricing all go a very long way towards minimizing if
15 not removing the requirement of a customer copayment in most instances. I see no reason
16 why this would be different in Minneapolis.

17 **Q: Are you confident that if the Commission approves the proposed tariff and budget**
18 **that there are enough opportunities and sufficient demand for energy efficiency**
19 **upgrades that your organization could run a PAYS® program that invested the**
20 **proposed budget in three years?**

21 **A:** Yes, once EEtility ramps up the program to scale, absolutely.

22 **Q: Is there anything else you want to say?**

1 **A:** I am very impressed with the amount of effort the City and many other concerned
2 stakeholders have expended to get to this point. Thank you in advance for your
3 consideration.

4 **Q:** **Does this conclude your direct testimony?**

5 **A:** Yes.

Schedule B1

Schedule B1

Tammy Agard, President/CEO

Email: tagard@eetility.com



Tammy is CEO and Co-Founder of EEtility, a national energy efficiency program operations firm based out of Arkansas that specializes in the operations of tariff on-bill financed programs. With a footprint in 3 states and growing rapidly, EEtility's present partners include rural electric cooperatives in Arkansas, North Carolina, and Tennessee. Tammy received national recognition in 2018 from ACEEE as a Champion of Energy Efficiency in Buildings for her leadership of EEtility's work to expand the access of energy efficiency financing to underserved populations. She currently serves on the Southeast Energy Efficiency Alliance's (SEEA) board and is a frequent national speaker on the topic of non-subsidized all-inclusive financing for energy efficiency and renewable energy upgrades. Tammy believes that in order to truly utilize energy efficiency as the cleanest and least costly resource that there is, we must overcome the financial barriers that currently prevent its rapid and sustained deployment at scale. Before designing and implementing residential energy efficiency upgrade programs, Tammy led a career as a contractor.

Professional Experience

EEtility, Little Rock, Arkansas (2014 – Present)

President and CEO (2014- Present)

- Supervises program operation and control all strategic and business aspects of EEtility
- Collaborates and liaisons with Federal, State and Local community partners including Utilities, State Energy Offices, Public Service Commission, Statewide Cooperative Corporations, DOE, USDA etc. in regard to tariff on bill financed energy efficiency program implementation using the Pay As You Save® system
- Analyzes performance and participant survey data to identify program inefficiencies and/or areas that need improvement in each market
- Share progress with all stakeholders on program goals and objectives
- Oversees and/or develop budgets, work plans, administrative plans, program strategies and related documents
- Creates new and/or modify existing energy efficiency programs alongside Utility partners
- Advocates for on bill financing efforts (with a preference for PAYS) to scale industry wide; attend / speak at key industry conferences
- Maintains a deep knowledge of energy efficiency markets and industry

William J Clinton Foundation, Little Rock, Arkansas (2008 – 2014)

Clinton Climate Initiative HEAL Operations Manager, Little Rock, AR. (2012-2014)

- Co- created CCI's Home Energy Affordability Loan Program (HEAL)
- Oversaw the operations of the HEAL Program including the management of Arkansas field staff
- Directed the development of all Client Care components of the HEAL Program

Clinton Climate Initiative HEAL AmeriCorps Program Director, Little Rock, AR. (2008-2012)

- Directed a team consisting of 24 AmeriCorps Service members and 6 Volunteers in Service to America under the rules and regulations of the AmeriCorps Umbrella
- Managed day to day activities of all service members, accounting for their time, and reporting on their quantitative and qualitative deliverables to all stakeholders

Schedule B2

Schedule B2

Schedule Two

PAYS® ESSENTIAL ELEMENTS & MINIMUM PROGRAM REQUIREMENTS

A. A program based on PAYS® has these essential elements:

1. A tariffed charge assigned to a location, not to an individual customer;
2. Billing and payment on the utility bill with disconnection for non-payment; and
3. Independent certification that products are appropriate and savings estimates exceed payments in both the near and long terms.

B. A program based on PAYS® has these minimum program requirements:

1. The offer to the customer will not be burdened with customer risk, which undermines the offer's attractiveness, results in fewer projects being completed, and reduces the program's effectiveness in achieving its goals.
2. The utility doing billing and collection of PAYS charges agrees to pay the capital provider(s) each month the amount billed to PAYS customers that month, regardless of the utility's collections, and to treat any bad debt for PAYS measures the same way that it treats all other bad debt.
3. PAYS offers will not be forced to compete with other rebate options. Any utility offering rebates and implementing a program using the PAYS system will offer the same rebates to all participants. Utilities can reduce the costs for rebates if rebates available to all customers are limited to the amount required to qualify an upgrade for the PAYS tariff.

Key design tips to ensure PAYS® programs meet these essential elements and minimum requirements

Upgrades

- PAYS upgrades use proven technologies to ensure reliable savings.
- Upgrades do not entail new debt obligation for participating customers.
- At the conclusion of utility cost recovery, upgrades belong to building owner.
- Upgrades do not have end-of-lease charges or transfer-of-ownership financial obligations.

On-bill charges

- Participants receive immediate net annual savings of at least 20 percent above program services charges (80 percent rule).
- Duration of payments is not more than 80 percent of the estimated life of the shortest-life component or a full parts and labor warranty/insurance policy.
- The program services charge is a fixed amount that may not be increased mid-payment-term.
- Pre-payment of unbilled charges is not permitted (i.e., no payment without savings).
- Utilities may disconnect customers for non-payment (DNP) in accordance with current policies, but upgrades may not be repossessed.

Repairs

- Charges stop if upgrades stop working until they are repaired and working again. Charges are also suspended for vacancy if meter is shut off.
- Repairs or vacancy may extend the duration of charges but not increase the monthly payment amount.

Cost-effectiveness analysis

- Savings analysis is onsite and building specific, and it includes no energy inflation or adders. It uses the amount of savings expected at the end of cost recovery for upgrades whose savings degrade over time, and it should be reported in units of energy not dollars.
- Savings estimates used in a cost-effectiveness analysis may be for monthly, bi-monthly, or annual periods.
- The exact cost of installed upgrades must be known at the time of assessment to avoid the cost and customer hassle of a second assessment because a vendor's installation price is different from the one used for the original assessment.
- Programs that set contractors' prices based on negotiated or bid averages reduce the assessment cost and simplify program marketing and communications.
- Utility subsidies and state and federal credits may only be included in cost-effectiveness analyses if they can be used to lower the upgrades' cost used in the assessment (no post-installation rebates paid to participants).

Schedule B3

Schedule B3

2019 PAYS® Status Update

Sorted by "Offer Acceptance Rate (%)"

Program	Utility	State	Number of Customers	Inception (yr)	Active (Y/N)	Source of Capital	Program Operator	Project Type	Projects Completed	Percent of Customers	Investment Total (\$)	Offer Acceptance Rate (%)	Avg. Project Size (\$)	Projected Payment Term (yrs)	Uncollectables (%)	Status Date
HELP PAYS®	Ouachita Electric	AR	6,920	2016	Y	CFC	EEility	Total	283		\$2,031,095					
								MF	81		\$465,410	90%	\$5,746	12	NA	1/1/18
								SF	197	4%	\$913,918		\$4,639	12		
							Commercial	5			\$651,767		\$130,353	7		
Upgrade to \$ave	Roanoke Electric	NC	14,510	2015	Y	USDA EECLP	EEility	Residential	446	3%	\$640K ≅\$3,120,000 Coprvs ≅ \$132K	85%	\$8,726	Varied (4-12)	<.1%	3/1/18
	Big Sandy RECC		12,500					SF		0.22%	\$2,341,312			Varied		
	Grayson Electric Co-op		15,000					Renters		Recovered from Tariff	\$1,565,972			During Pilot	2%	
	Fleming-Mason Energy Jackson	KY	23,730	2011	Y	Various	MACED	Commercial	312			78%	\$7,504	Post Pilot	0.40%	1/31/18
	Energy Co-op Farmers RECC		51,000													
	Licking Valley RECC		20,000													
			17,000													
HowSmart®	Midwest Energy	KS	≅ 50,000	2008	Y	Various	Utility	Residential	2,081	4% Recovered from Tariff	≅ \$15,921,717	≅ 70%	\$7,651	10-15	<0.1%	12/31/18
											\$11,938,577		\$5,736	24%		
Windsor Efficiency PAYS®	Town of Windsor Water Utility	CA	7,846 SF 615 MF	2012	Suspended for Redesign	Utility Operations	Sonoma Cnty Energy Independence	SF, MF	242 SF 233 MF	3% SF 38% MF	\$561,704	NA	\$460 SF \$19,220 MF	10-15	<0.1%	SF 2014 MF 2016
Green Hayward PAYS®	City of Hayward	CA	13,439 MF	2015	Y	Utility Operations	Frontier Energy	MF	162 MF	1.20%	\$173,115	23%	\$28,852	3-10	NA	3/9/18
EBMUD WaterSmart Pilot	East Bay Municipal Utility District	CA				Utility Operations	Utility	MF	53 MF	<1%	\$22,634	NA	\$7,545	3-5	NA	11/2/17
Smart Start	Eversource	NH	513,304	2002	Y	Conservation Budget & Repayments	Utility	Municipal	269	NA	≅ \$10,800,000	NA	NA	≅ 8	<0.0%	12/31/18
	Hawaiian Electric		304,261													
Solar Saver Pilot	Hawaii Electric Light Maui Electric	HI	85,029	2007	N	Conservation Budget	Utility	SF	484	NA	≅ \$2,900,000	NA		≅ 10	<0.1%	12/31/08
			70,872													
PAYS Pilot	Hampshire Electric Co-op	NH	84,000	2002	N	Conservation Budget & NRECA	Utility	Commercial, Retail	21 (does not include retail CFLs)	NA	\$157,000	NA	NA	5-10	<0.1%	12/31/04
U-Save Advantage	Appalachian Electric Co-op	TN	40,233	2019	Y	USDA RESP	EEility	Residential								5/21/19

Source: Utility reports to Energy Efficiency Institute, Inc.