



State Approaches to Pay As You Save Programs

On March 7, 2022, NARUC facilitated a state commission staff “surge” call on Pay As You Save (PAYS) programs. Inclusive utility financing programs enable customers who may otherwise be limited by financial barriers such as poor credit, debt, and renter status to access home energy efficiency upgrades. These inclusive financing programs include tariffed on-bill loan and rebate programs, which cover the upfront costs of energy savings improvements and allow customers to pay down the investment costs through monthly payments on their electric bill. Various on-bill financing models have been adopted by utilities across the country, including PAYS which is the most common tariffed on-bill program for energy efficiency. PAYS is a market-based system developed by the Energy Efficiency Institute where the customer and utility can both benefit if the efficiency investment exceeds the cost recovery charges. On this call, commission staff from Arkansas, Georgia, and Missouri provided an overview of PAYS programs in their states as well as challenges and opportunities for other state public utility commissions to consider.

[View the accompanying presentation slides.](#)

Arkansas

In 2016, the first PAYS program was proposed in Arkansas by Ouachita Electric Cooperative, a small cooperative in South Arkansas with about 9,000 customers. Within a few months, the Arkansas Public Service Commissioner (APSC) approved the program, called [HELP PAYS](#). Originally, the program was called the Home Energy Loan Program (HELP) and was limited to on-bill financing, but when the PAYS model became available, the utility switched from the on-bill financing approach to PAYS. Under the PAYS model, the co-op takes out a low-cost loan, typically around 2-4% interest, and the co-op owns the energy efficiency measures on the customer’s side of the meter. The average loan amount is between \$4,500 and \$8,000 and financing costs are recovered on the bill via a PAYS tariff, which takes an average of 10-12 years to pay off. In this financing model, the customer has no out-of-pocket costs unless they select copay options for additional energy efficiency upgrades or, in the case of Ouachita, if the customer also enrolls in rooftop solar. In Arkansas, eligibility also depends on the nature of the home energy audit. Homes may be ineligible if they are not the right age or have already been weatherized.

This program does not require any loan, debt, credit check, or means testing for eligibility and low-income households and renters are eligible to participate with the landlord’s consent. Additionally, there is no lien on the property, no risk of default, no bank involvement, and no foreclosure risk. These are all fundamental aspects of the PAYS model that make it an inclusive approach to efficiency upgrades. The owner or the tenant remains liable for the utility bill and can be disconnected for nonpayment. The PAYS model is designed such that the unpaid bill should be lower than it would have been in the absence of upgrades, because around 20 percent of the energy savings are dedicated to reducing the bill for the customer. The co-ops that implement this approach engage an implementation contractor who performs a pre- and post-installation measurement of energy and demand savings using the co-op’s smart meters. They conduct an energy assessment and audit and deal with the contractor that installs the measures. They engage and pay the installers, arrange for repairs or replacement on non-performing measures, and enforce warranties.

In the early years of the program, Ouachita reported demand savings ranging from 1 to 2 kW per house. The customers in this low-income area of the state have high usage, in the range of 2,000 kWh per month,



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which is about twice that observed by investor-owned utility customers in the rest of Arkansas. The energy savings are in the 20 percent range and the installed measures include HVAC tune-ups or replacement, weatherization measures, and LED lights. The demand savings are important because they provide benefits to all cooperative members through reductions in payments from the co-op to the generation and transmission cooperative energy suppliers that Ouachita uses. The obligation to pay the fixed monthly charge rides with the meter, a key feature of PAYS, and is paid by the existing customer or the successor tenant or owner. The benefits continue to flow to the property occupants. When the measure costs are paid off, ownership transfers to the property owner. APSC has a pending docket involving another larger cooperative that is proposing the PAYS model for residential solar.

Georgia

In Georgia, the PAYS-based program is known as Residential Investment Saving Energy (RISE). RISE was initially requested as a pilot program by Georgia Power in their 2019 Integrated Resource Plan. It was not approved at the time, but the Georgia Public Service Commission (GPSC) required Georgia Power to work with commission staff to try to reduce the administrative costs and propose a revised program. The updated pilot plan was approved in June 2020. Due to COVID, however, implementation was delayed.

This was the first program of its type for Georgia Power. The GPSC ultimately approved a \$7 million budget to support efficiency measures at 500 homes in the highest energy burdened areas of Atlanta and Athens. Energy burden refers to the share of household income spend on energy costs. The average spending per home for the program was \$7,500 and limited to a maximum of \$10,000 per home. The RISE program differs from the PAYS program in Arkansas in that RISE is limited to income-qualified customers, at up to 200 percent of the federal poverty level, who self-report. Single and multi-family premises are eligible and rented properties can participate as long as the property owner agrees to upgrades. Like in Arkansas, the tariff is tied to the property and not the owner or occupant. The program was designed to overcome participation barriers to low-income customers who typically do not have the capital to cover upfront costs of energy efficiency upgrades and are often underserved in standard energy efficiency programs. RISE aims to save 25 percent of the customer's baseline household electric usage. Eligible measures include HVAC, insulation, smart thermostats, and air sealing.

Like in Arkansas, the term of payment is the lesser of the estimated average life of the measure or ten years from the first charge to the electric service bill. Additionally, the immediate bill savings include 80 percent payback of the upgrade costs and a 20 percent reduction in current bills. Even after paying back the tariff charge, the customer should still see a bill reduction. In July 2021, Georgia Power came to the commission staff and asked if they could add gas savings as part of their savings calculations. Up until this point, the utility could only count electric savings, so they were having a difficult time finding customers that qualified. Staff agreed to include gas savings as part of the savings calculations going forward.

Currently, there are only 17 completed tariffed installations. The main measures that have been installed to date are attic insulation, duct and air sealing, and smart thermostats. Georgia Power has contacted over 250 potential participants. As a part of the pilot, when the utility does its assessment, they can install certain measures (i.e., LEDs, smart-strips, shower heads, water heater insulation) for free even if the customer decides not to proceed with the tariffed on-bill financing. The challenge with the current program is that the tariff is not available to all customers due to the income requirement, and it has been difficult finding



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qualified participants. Georgia Power is seeing that high energy burden does not necessarily equate to high electricity bills. The metro-Atlanta region has mostly gas heating, which is why gas savings were later included in savings calculation at Georgia Power's request.

In Georgia Power's 2022 IRP and Demand Side Management filing, the utility requested a continuation of the pilot with a potential expansion into the Savannah area. Some intervenors have asked for the program to be more geographically widespread and available to more customers. Right now, Georgia Power is focused on getting the program to 500 houses in Atlanta and Athens.

Missouri

In Missouri, all IOUs have energy efficiency programs under the Missouri Energy Efficiency Investment Act (MEEIA) which was enacted in 2009. The history of PAYS goes back to the 2016 rate case for Kansas City Power & Light, now Evergy. The Missouri Public Service Commission (MPSC) expressed interest in PAYS but had specific questions for parties and staff. This led to parties agreeing to PAYS-specific feasibility studies. As of 2022, a PAYS program is included in all the electric utility energy efficiency portfolios. Two gas utilities have PAYS programs as well.

PAYS programs in Missouri are available to all residential customers, not just those who are income-eligible. In August 2020, Ameren Missouri came to an agreement to launch a PAYS program starting on January 1, 2021. In the agreement, there was a spending floor of \$750,000 for costs including marketing, advertising, and administration. For program year 2021, there was a \$1.82 million administrative budget with \$5 million in financing to eligible customers. In program year 2022, there was a \$3.18 million administrative budget and \$10 million in financing to customers. There was a 4 percent financing cost for program participants, which was rolled into the rate base as a regulatory asset. Ameren also agreed to develop a PAYS-specific potential study to inform their next MEEIA filing as well as conduct a process and impact evaluation. There was an anticipated 4,367 MWh of savings in 2021 and 8,735 MWh of savings in 2022. In 2021, Ameren asked for an extension for program year 2023. The agreement for 2023 was for a \$3.06 million administrative budget, \$10 million in financing to customers, and at least \$1 million to be spent marketing the PAYS program. The financing costs charged to customers were reduced from 4 percent to 3 percent. As part of its 2021 evaluation, measurement & verification (EM&V), Ameren agreed to conduct additional research on why participants choose not to enroll or accept a qualifying PAYS offer to identify barriers to enrollment. Initially, Ameren had low participation numbers, due to COVID and the learning curve of marketing the program. As issues are being worked out, participation has steadily increased.

When Evergy Missouri Metro & West proposed their MEEIA cycle 2 portfolio, they did not include a PAYS program. This was a contentious filing that led to a hearing, but in the end, the MPSC approved Evergy's MEEIA cycle under the condition that they include a PAYS program for cycle 3. The company was ordered to file a 1-year pilot. In 2021, Evergy proposed their PAYS program, which allowed owners of multifamily units in participating buildings to use the program to install upgrades in common areas. The commission also required an appropriate earnings opportunity, which is included but varies for all PAYS programs. The commission also included customer protections by capping administrative costs for each individual customer project to a portion of the finance cost. The agreed-upon budget was \$3.17 million for



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administration and \$7 million in financing to customers. The anticipated savings for the one-year pilot were 6,007 MWh. The pilot started in September 2021.

Empire was the last electric utility to have a MEEIA portfolio. Their agreement was for a residential whole home energy PAYS program with an approximately \$500,000 administrative budget and another \$500,000 for customer financing. The anticipated savings for 2022 were 1,102 MWh. Empire is a smaller electric utility than the Evergy companies, so the program is comparatively smaller.

Two gas utilities recently initiated PAYS programs: Spire and Ameren Gas. Spire's program includes a \$1 million budget for administration, marketing, and other costs associated with the implementation and installation of program measures. There is a 3 percent financing cost, and program costs are tracked and deferred into a regulatory asset until the next rate case. There are not estimates of participation or savings at this point. Ameren Gas, as part of their most recent gas case, transitioned their energy efficiency program to a full PAYS program. The current annual budget of \$700,000 was maintained, with \$450,000 allocated to administration of PAYS and \$250,000 allocated to weatherization. The PAYS budget is expected to finance up to \$2.1 million worth of energy efficiency upgrades.

Discussion

One question asked about types of measures or plans that can indicate success. In Georgia, the number of customers who sign up for the program and amount of energy saved indicate success. A lot of this is related to customer outreach and education. Georgia Power has recently had more ambitious enrollment targets, but customers have backed out for various reasons. In Missouri, energy use is used to measure success. Since the programs are still in the early stages, there is uncertainty as to whether they are successful, but program savings are steadily increasing. In Arkansas, participation is also considered a measure of success and enrollment has been high.

A staff member from Arkansas mentioned a potential barrier that may need to be addressed in future iterations of the program. Specifically, they were concerned with whether there were any income barriers to using smart thermostats or other connected devices that require wireless Internet connections to function, as well as what happens when the customer moves. In this staffer's experience, landlords have been reluctant to enroll in the program because they believed tenants would not maintain smart thermostats, requiring the landlords to reinstall the device for new tenants. The staffer also questioned whether there should be a separate landlord program that overcame the challenge of the thermostat moving with the tenant.

Participants on the call also discussed that the best practices were to identify and refer income-qualified customers to PAYS or energy waste reduction (EWR) programs. In Michigan, staff discovered that there is a level of distrust between customers and utilities. Customers relate EWR outreach to utility shutoffs. They also found it difficult to get landlords to consent to upgrades as well as to convince low-income customers to schedule their home energy audits as they are more focused on resolving their billing crises. Nevada staff shared that they found success with the utility conducting outreach through community-based organizations. Customers have more trust in community and faith leaders who can help recruit program participants. Similarly in Georgia and Missouri, community organizations have had a role in customer outreach. In Arkansas, all customers who are eligible for LIHEAP or are 65 years or older are eligible for any of the low-income programs the commission might adopt.



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The final question asked about the extent to which these programs are open market. Are there processes for ensuring that the utilities are providing a fair opportunity for every kind of measure? In Arkansas, the program is implemented by Etility, a public benefit corporation. They were able to bring measures and jobs in that did not previously exist in the area, such as installation of mini split air conditioners. In Georgia, the measures are part of a program that Georgia Power had already certified for home energy improvement. In Missouri, like Georgia, measures from other energy efficiency programs were made available for the PAYS program.

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