November 2016

Opening Opportunities with Inclusive Financing for Energy Efficiency:

Preliminary Results of the Ouachita Electric HELP PAYS® Program

Ouachita Electric Cooperative

EEtility
EFFICIENCY IS POWER

Clean Energy WORKS

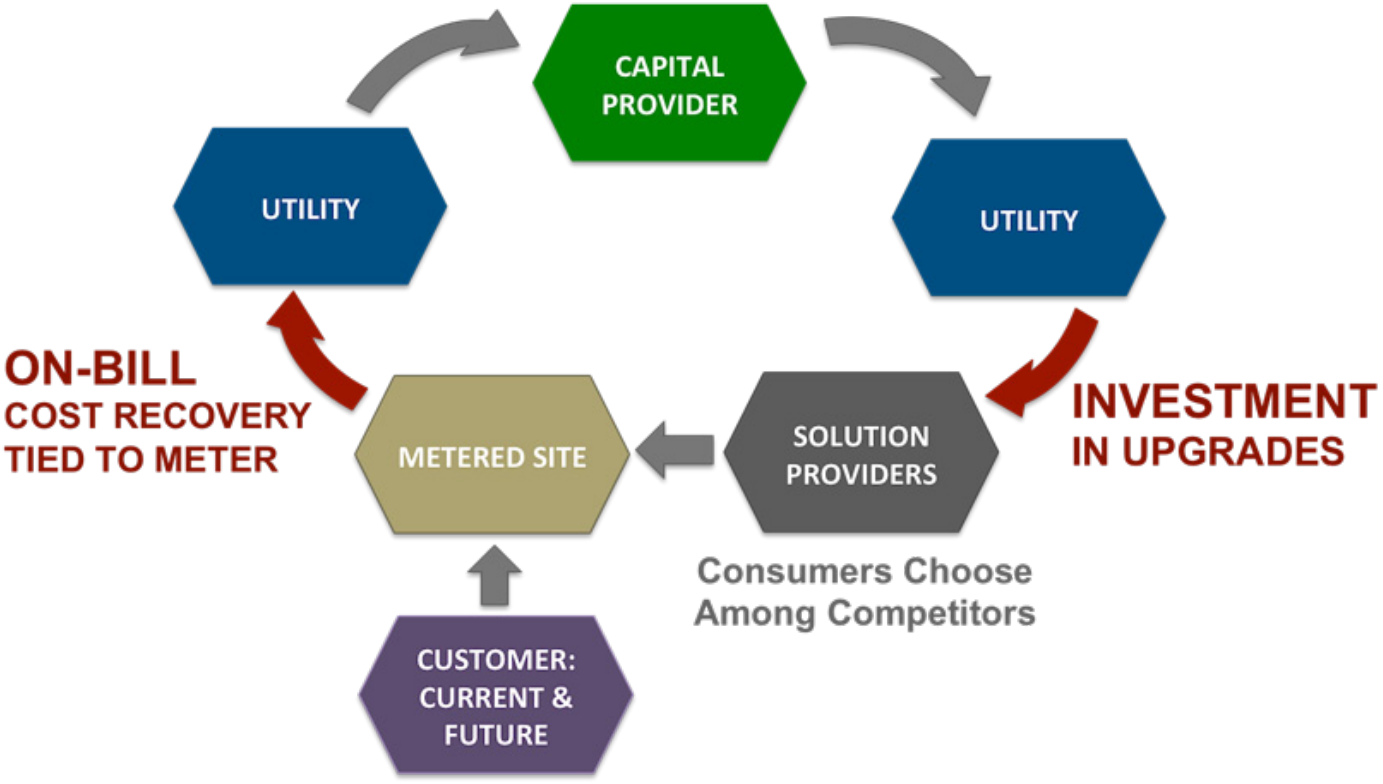
Making a Best Practice Program Even Better

Mark Cayce, General Manager
Ouachita Electric Cooperative

Earlier this year, the Arkansas Public Service Commission voted unanimously to approve our opt-in tariff for cost effective energy efficiency investments at the request of Ouachita Electric Cooperative.[1] Within 90 days, our utility switched from offering loans for energy efficiency upgrades (our HELP program) to offering inclusive financing through HELP PAYS®, a tariffed on-bill program based on the Pay As You Save® (PAYS®) system.

With HELP PAYS, our utility can serve all customers, regardless of income, credit score, and renter status. The tariffed terms provide immediate net savings for the customer with no new debt obligation, and it assures the utility a low risk path to cost recovery through a charge on the bill that is less than the estimated savings from the upgrades. Our utility assures the upgrades continue to function throughout the period of cost recovery, and once cost recovery is complete, all upgrades belong to the owner.

PAYS offers all utility customers the option to access cost effective energy upgrades using a proven investment and cost recovery model that benefits both the customer and utility.



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1 Commissions in Kansas, Kentucky, Hawaii, and New Hampshire along with utility oversight boards in California and North Carolina have approved similar tariffs also based on the Pay As You Save® (PAYS®) system.

Key Findings:
HELP PAYS® Inclusive Financing vs. HELP Loan

Ouachita Electric Cooperative transitioned from its previous, nationally recognized HELP loan program to its HELP PAYS® tariffed on-bill investment program in order to benefit more of its members, and to increase the benefits it could deliver to participants. With this preliminary analysis of data for the first four months of the program, some of those benefits are being validated immediately by the market response compared to the same four months of the prior year with the HELP program in Ouachita Electric Cooperative's service area.

1. Participation tripled:

During the period April 1, 2015 – July 31, 2015, the HELP program in the same utility's service area served 46 members, all owners of single family homes. Over the same period during 2016, HELP PAYS® served 69 single family homes, 62 units of multifamily housing, and two commercial customers – approximately triple the number of participants.

2. Immediate net savings:

All HELP PAYS® participants benefit from immediate positive cash flow by keeping at least 20% of the estimated savings – compared to an average of zero immediate net savings in HELP, a bill neutral loan program.

3. Renters say yes:

In the HELP PAYS® program, renters accounted for nearly half of the participants in its first quarter, customers who were ineligible to participate in the HELP loan program. Their landlords readily supported the program, agreeing to pay copayments required to qualify upgrades if needed. 100% of the renters accepted the offers they received by opting into the tariff.

4. Average investment doubled:

In the same period during 2015, the average size of the 46 single family HELP loan project was near $2,500. In the same period, the average investment through the HELP PAYS® program more than doubled.

5. Total investment grows by 10x:

During the same period in 2015, the HELP loan program in the utility's service area produced investments in energy efficiency of $116,538. With the HELP PAYS program, investment surged by more than a factor of 10 to exceed $1.5 million.

Ouachita Electric HELP PAYS® Program

Summary of Investment Activity

April 1 – July 31, 2016

Executive Summary

Ouachita Electric worked with its program operator, EEtility, to field interest in program participation from 149 customers, all of whom are member-owners of the cooperative. Ouachita Electric serves areas of persistent poverty in southern Arkansas, yet the design of this program does not depend upon income verification of participants. Through the HELP PAYS® investment program, Ouachita Electric was able to finance upgrades in multi-family housing for the first time, and renters accounted for nearly half of the participants.

EEtility identified investment opportunities in 93% of the sites, and 95% of those customers accepted the offer of investment, including the 24% of those customers for whom the investment was conditional on a copayment. Among the renters in multi-family housing, 100% of those receiving HELP PAYS® offers accepted the investment on the terms of the opt-in tariff, and the landlords agreed to pay for 100% of the copayments associated with those units where copays were required.

The total investment exceeded $1.5 million in the first four months of the program, and the cost of capital applied by the utility was 4.5%. Two commercial projects (at a municipal building and a college campus) accounted for one third of the portfolio, and the rest was split between single family and multi-family residential. The average investment in efficiency upgrades to participating single-family housing was $6,387, and the average for multi-family housing units was $6,023.

Ouachita Electric serves an area where many people are living in homes built nearly 50 years ago that have not been previously upgraded for energy efficiency. This housing stock includes very energy inefficient homes or apartments. The estimated average annual energy savings are based on engineering calculations informed by direct site measurements and calibrated for each site with historical bill data. For single family upgrades, the estimated annual energy savings was above 30% and for multi-family housing, the average was more than 35%.

HELP PAYS® assures cost recovery for the utility through a fixed charge on a participant's bill called a Program Service Charge, which is capped at 80% of the estimated savings within 80% of the useful life of the upgrades, assuming no escalation in rates. As a result, the portion of the estimated monthly net savings that a participant keeps as immediate net savings is 20% or higher, and the HELP PAYS portfolio developed in the first four months of the program exceeded that target.

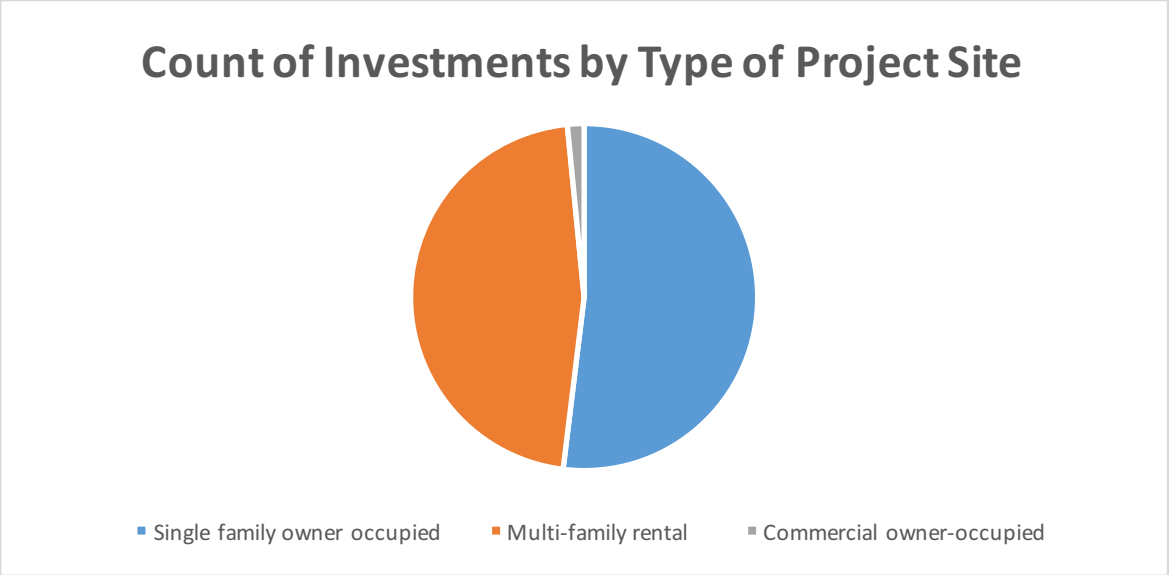
All of these program performance figures substantially exceeded similar metrics for the HELP loan program during the same period for the prior year.

1. Distribution of Interested Participants by Type of Project Site

The HELP PAYS® program completed 149 assessments of cost effective energy efficiency upgrade opportunities in buildings served by the utility.

Of the 149 assessments, 85 (57%) were for-single family properties, 62 (42%) were multi-family properties and 2 (1%) were commercial properties. All 62 multi-family units were either in buildings with 4 units or were adjoining single-story units sharing one roof.

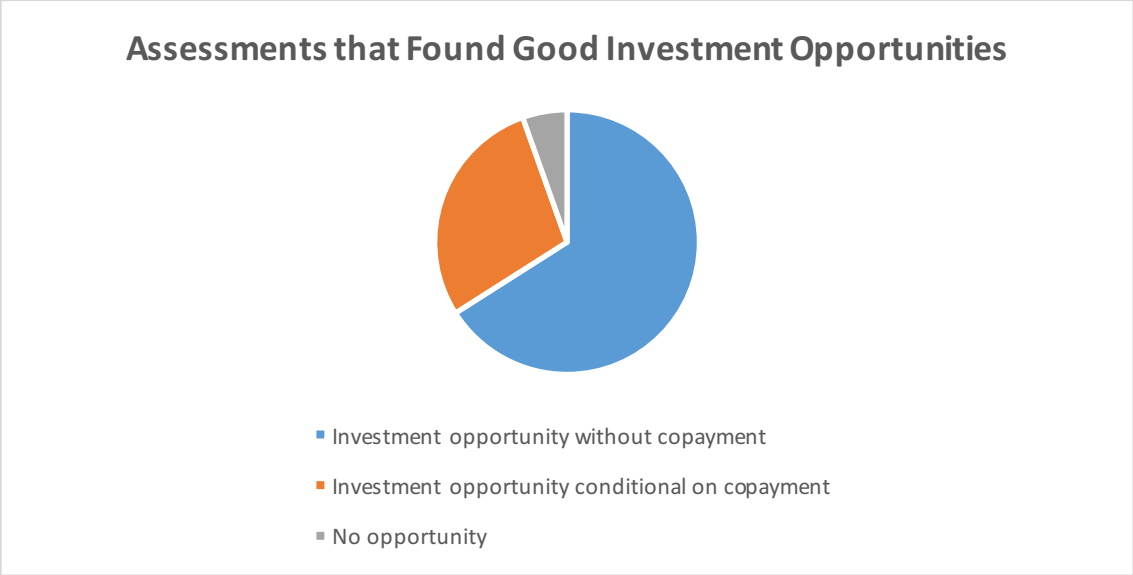
Among the single family properties, 100% were owner occupied. Among the multi-family properties, 100% were rental units. Both commercial properties were owner occupied.



2. Results of Assessments of Sites for Cost Effective Upgrades

The PAYS system requires that upgrades be cost effective even after capping the cost recovery charge to 80% of the estimated savings (based on current rates) within 80% of the useful life of the upgrades, assuming no escalation in rates. This assurance provides an assurance of net savings to the program participant. If the upgrades would not meet that threshold, the PAYS system provides an option for a customer to make a copayment upfront in order to assure that the investment will meet the PAYS standard for consumer protection, immediately providing the customer with 20% of the estimated savings.

Out of the 149 assessments, EEtility identified investment opportunities at 139 sites, including 103 (69%) that met the requirements of the PAYS® system for cost effectiveness (no copayment) and 36 (24%) that were conditional upon a copayment. Ten (7%) sites did not have suitable investment opportunities.



Results of Assessments Summarized by Market Segment

Out of the assessments at 85 single family properties, EEtility did not recommend investing at 10 sites due to multiple factors.[2] Investment opportunities were identified at 75 of the 85 sites (88%), including 54 (63%) that met the offer requirements of the PAYS system for cost effectiveness and 21 (25%) that were conditional on copayments.

Investment opportunities were identified at all 62 of the multi-family housing units at two properties, including 49 investments (79%) that met the offer requirements of the PAYS system for cost effectiveness and 13 (21%) that were conditional on copayments by the property owners (landlords).

Investment opportunities were identified at both of the commercial properties, a school and a municipal building. The investment package at one of those sites was conditional on a copayment.

[2] One person died, one moved. These sites can be revisited in the future. One person was only interested in geothermal, which had approximately a 45 year payback. At the remaining 7 sites, the assessment found that the homes already had good energy performance, with only minor upgrades penciling out with minimal savings that would not justify professional installation. The program operator encouraged those customers to undertake these projects independently.

3. Acceptance of HELP PAYS® Offers to Invest in Efficiency Upgrades

Overall, 133 of 139 (96%) HELP PAYS® offers were accepted.

Offer Responses Summarized by Market Segment

Of the offers to invest at 75 single family projects, 69 (92%) accepted the HELP PAYS® offer, including 48 of the 51 (94%) offers with no copayment needed and 21 of the 24 offers (87%) that were conditional on copays.[3]

Out of the offers to invest in upgrades to 62 units in two multifamily properties, 62 (100%) accepted the HELP PAYS® offer. Both property owners approved all of the upgrades, and they agreed to make the copayments needed for upgrades at 12 units so that these units would meet the requirements of the PAYS system for cost effectiveness.

Of the two commercial customers that received HELP PAYS® offers, both (100%) accepted, including the one that was conditional on a copayment.

Out of the 102 sites across all property types that received a bona fide PAYS offer (no copayment), 99 (97%) were accepted. Out of 36 offers to invest that were conditional on copayments, 33 (92%) were accepted.

[3] Of the 6 single family customers who declined the offer, 2 stated they were skeptical and 4 indicated they preferred to install the upgrades themselves.

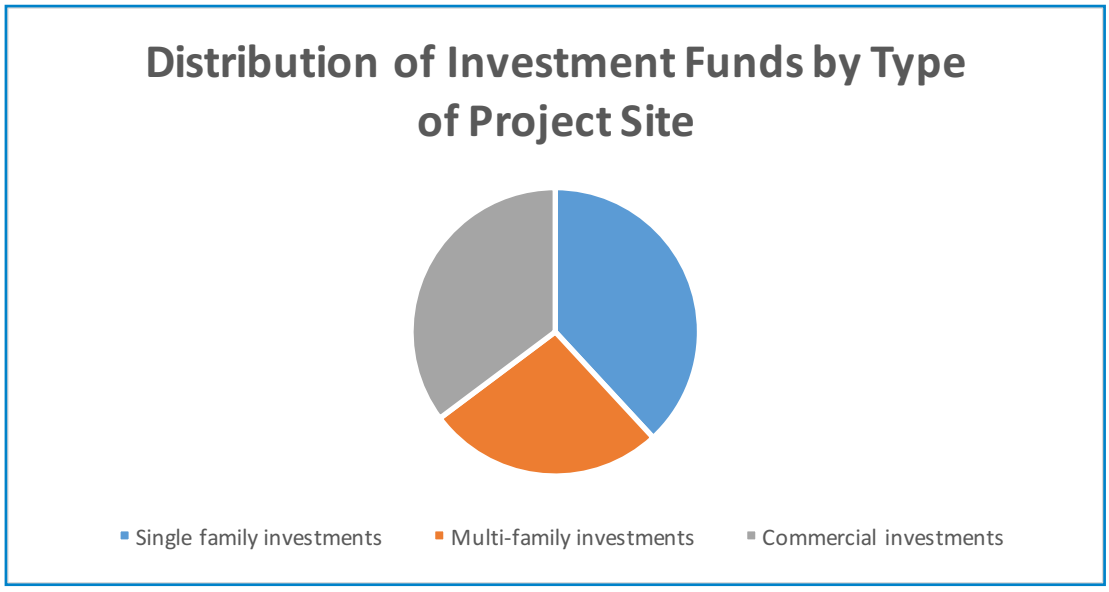
4. HELP PAYS® Total Investments to Date

a. Distribution of Investments by Type of Project Site

Of the 133 offers accepted, 69 were single family, 62 were multi-family, and 2 were commercial.

The cost of capital the applied to all investments in the program was 4.5%.
Approximately one third of the total dollar amounts went to each type of project site.

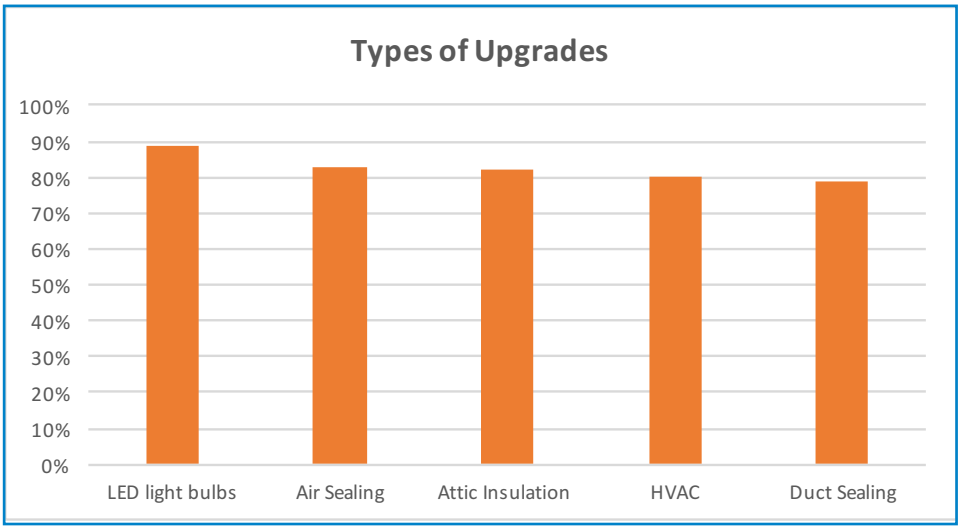
Single Family	$596,912
Multi Family	$418,289
Commercial	$552,981
Total	$1,568,182



5. Types of Upgrades, across all locations

The HELP PAYS® program evaluates five common types of building energy efficiency upgrades, and each of them was included in the majority of the investment packages. The most common upgrade type was installation of LED light bulbs, occurring in 89% of sites where upgrades occurred. Air sealing was the next most common upgrade, occurring at 83% of sites where upgrades occurred.

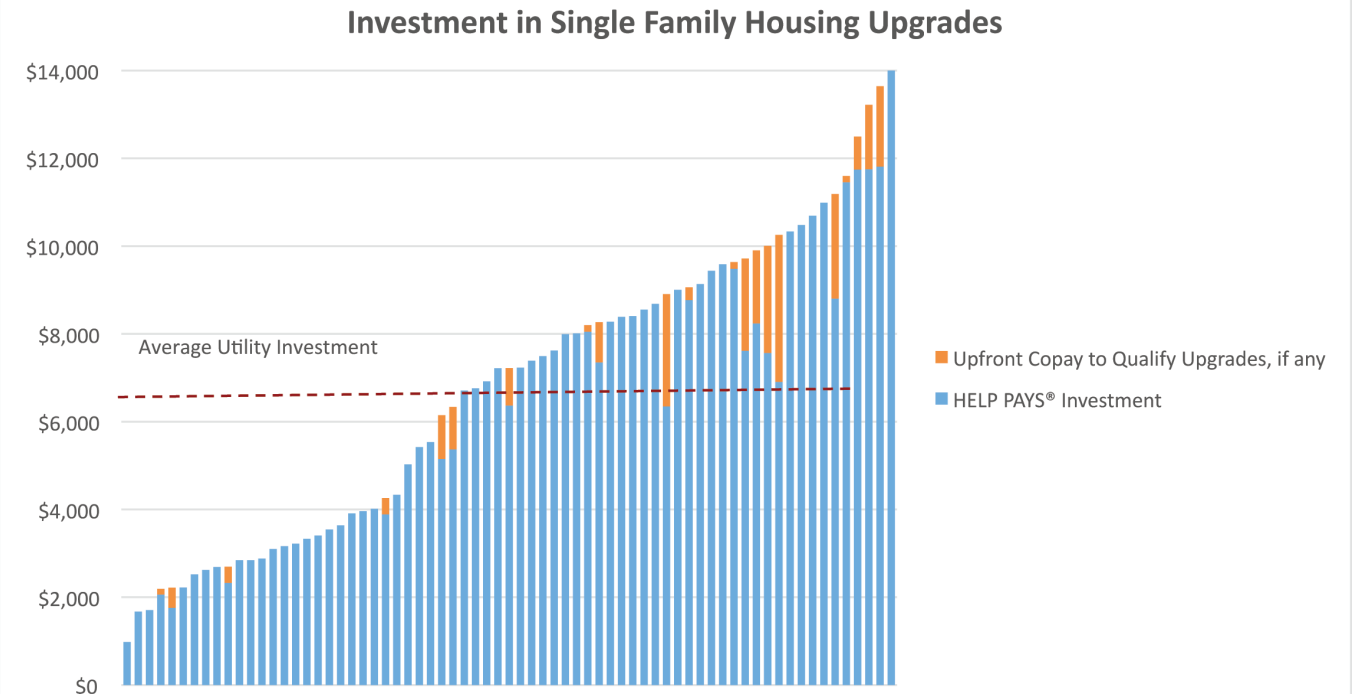
LED light bulbs	89%
Air Sealing	83%
Attic Insulation	82%
HVAC	80%
Duct Sealing	79%



6. Project Size and Utility Investment

a. Single Family

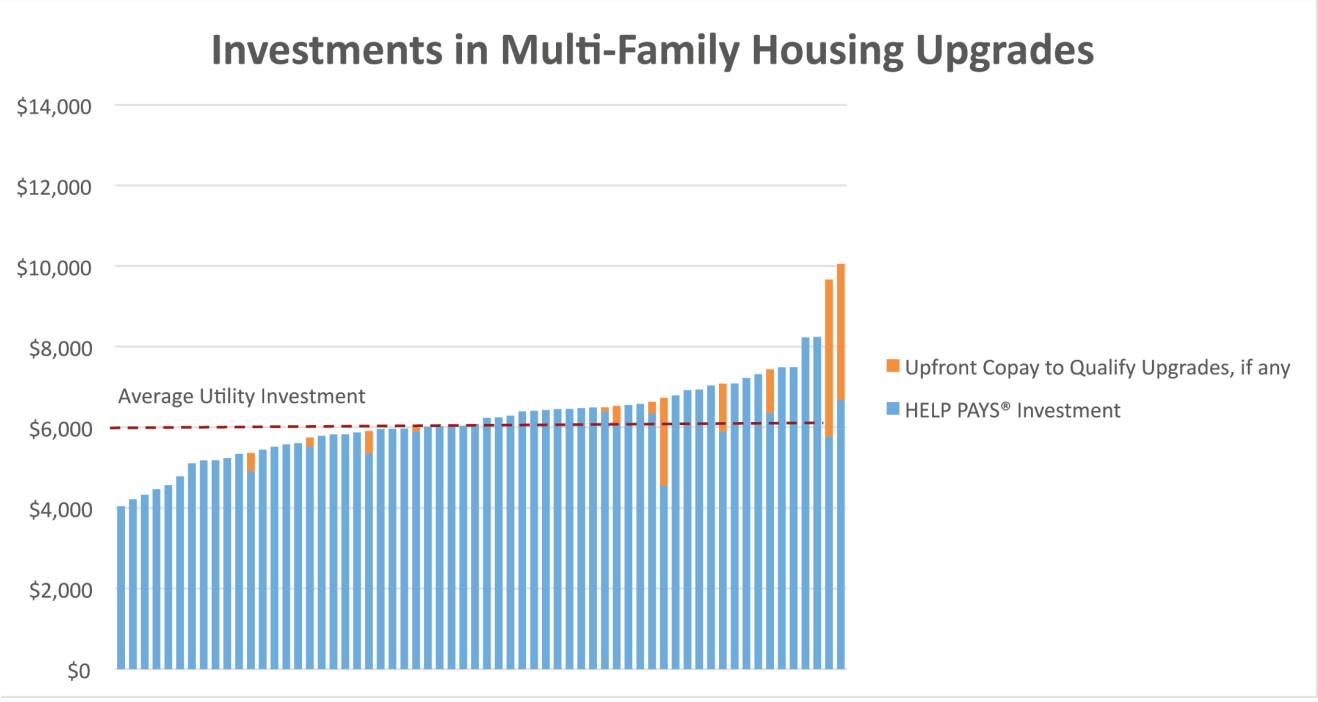
Number of Investments:	69
Average Utility Investment:	$6,387
Sites requiring a Copayment:	20
Percent with a Copayment:	30%
Average Copay, for 21 homes with a copay:	$1,158



b. Multi Family

Number of Investments:	62
Average Utility Investment:	$6023
Apartments requiring copayment (paid by landlord):	12
Percent apartments with a copayment:	19%
Average Copay for 12 apartments requiring copays	$1,155

** All Copays paid for by landlords*



c. Commercial

One municipal project:

City of Hampton
Project investment: above $20,000
Copayment: above $2,000
Upgrades included: All five upgrade types

One university campus project:

Southern Arkansas Technical University
Project investment: above $500,000
Upgrades included: Lighting only

7. Estimated Energy Savings

The HELP PAYS® program is primarily serving Ouachita members living in homes built nearly 50 years ago that have not been previously upgraded for energy efficiency. In general, the housing stock is characterized by very energy inefficient homes/apartments, and the results of the program reflect those conditions.

Annual savings are estimated based on the engineering calculations from individual on-site building analyses. These savings are recalibrated after each project is "tested out" using post upgrade air and duct sealing test results and visual insulation and HVAC Quality Control inspections. Ouachita Electric further verifies each project's performance using weather normalized smart meter data.

The average estimated annual savings for both single-family and multi-family participants was above 30%, with a wide range that reflects variation in the quality of the housing stock. Two commercial customers participated: The City of Hampton and Southern Arkansas Technical University. Both projects have average estimated annual energy savings above 25% for the projects scoped. For the university, the project scope was lighting only.

8. Estimated Monthly Savings and Cost Recovery

For the customers that are dual fuel, the estimated monthly savings include both gas and electric savings. The estimated monthly savings are based on current rates over the useful life of the upgrades, a condition that is specified in the HELP PAYS® tariff.

As defined in the HELP PAYS® tariff established by Ouachita Electric, the Program Service Charge is the cost recovery charge included on the monthly utility bill until the utility's costs are recovered. The charge is capped at 80% of the average estimated monthly savings based on current rates and a cost recovery period that is capped at 80% of the useful life of the upgrade package.

a. Single Family

Average Estimated Monthly Energy Bill Savings	$71.34
Average Monthly Program Service Charge	$56.26
Average Monthly Estimated Net Savings	$15.07
Average Monthly Estimated Net Savings (%)	21%
Average Cost Recovery Period	12 years

b. Multi Family

Average Estimated Monthly Savings	$65.48
Average Monthly Program Service Charge	$51.88
Average Monthly Estimated Net Savings	$13.91
Average Monthly Estimated Net Savings (%)	21%
Average Cost Recovery Period	12 years

c. Commercial

Average statistics for a sample size of two will not yield meaningful results. The estimated annual savings for the municipal building project is above $2,000. The estimated annual energy savings for the lighting upgrade on the college campus is above $90,000. The cost recovery period for the municipal building is 12 years, whereas the lighting project at the university campus has a cost recovery period of 10 years.

9. Looking Ahead

Even with more than a million dollars invested, we have only just begun. We are already considering ways to expand the application of our program. For example, our market conditions reward investments in demand response capabilities, so we will study the data from our smart meters to better understand the benefits of demand savings we are achieving with our investments. We are also exploring our opportunity to finance deployment of smart thermostats to add flexibility to our system.

We will seek opportunities to share our experiences and to gain insight from other utilities with similar programs. We have called on the assistance of cooperatives with similar programs, including Roanoke Electric in North Carolina, and we have benefited from the expertise of our own generation and transmission cooperative, Arkansas Electric. With that same spirit, we look forward to engaging more cooperatives interested in offering an inclusive financing solution to their members as well.

We are continuing to learn as we gain experience with program implementation. Some aspects of our program will require a full year of data to begin assessing, and we will continue to make adjustments. In the meanwhile, we are proud to be among the contenders for the national Georgetown University Energy Prize: Our partner, Calhoun County, is the only rural community among the finalists, and we will update this report to close out our quest over the last two years to chart a path that achieves deep savings while also fueling local economic development.

Contractors that participate in the HELP PAYS program are expanding their workforce as the scale of investment grows. Future reports will include information on the jobs supported by the program as well as the program's approach to continuous workforce development to support quality assurance and opportunities for advancement.

For more information and updates about our work, please visit us online at:
www.oecc.com/help

Acknowledgements

We thank Resource Media for developing the graphic design for this report. Cover photos were taken by staff at Ouachita Electric and Arkansas Electric Cooperative Corporation, which also produced a video that has helped us share the experience of offering inclusive financing to our members.