



S E E A

SOUTHEAST ENERGY EFFICIENCY ALLIANCE

WEBINAR SERIES

CONSUMER PROTECTIONS IN INCLUSIVE FINANCING FOR ENERGY EFFICIENCY

Part 3 of the SEEA Learning Circle Series

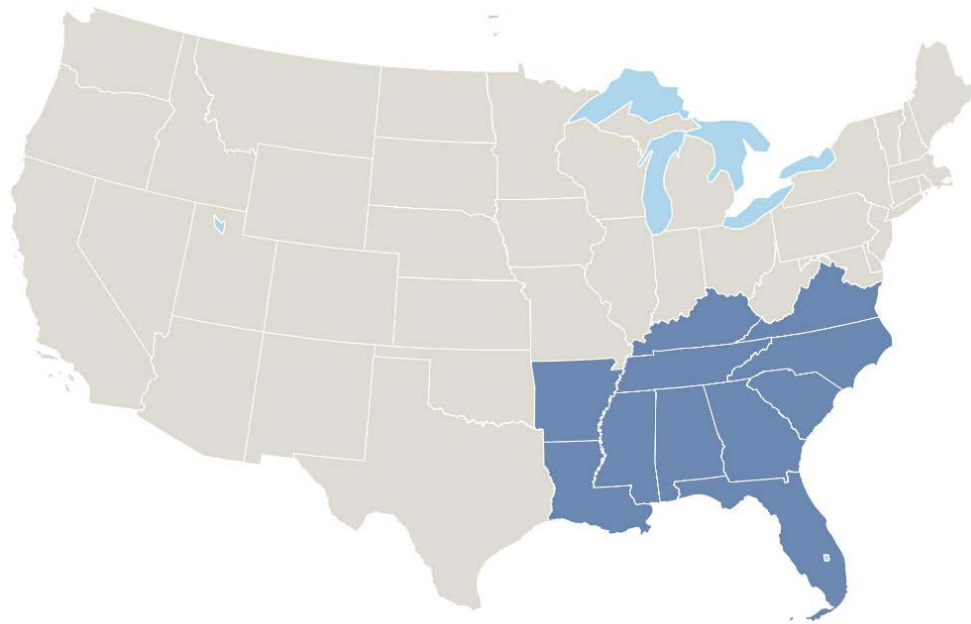
SEEA Serves the Southeast

Mission

The **Southeast Energy Efficiency Alliance (SEEA)** works to ensure people in the Southeast have the knowledge, resources, and opportunities to optimize energy use.

Vision

Energy efficiency is a primary driver of a prosperous, healthy and sustainable Southeast.



Work Areas:

Built Environment

State, Local & Utility Policy

Energy Equity

Energy Efficiency Finance



SEEA & Energy Efficiency Finance

EE Finance Activities

Work Area Goal

Expand the availability and accessibility of capital to make energy efficiency investments

- 2014 Arkansas Energy Office Statewide Financing Options Study
- 2014 Southeast Energy Efficiency Fund
- 2014 North Carolina On-Bill Working Group
- 2015 SEEA webinar with CEO of Roanoke Electric
- 2015 SEEA conference highlight: The Roanoke Center
- 2016 SEEA conference highlight: Ouachita Electric
- 2017 SEEA Learning Circle for Inclusive Financing

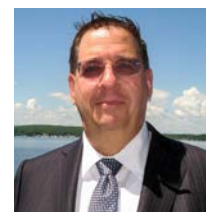
Solutions that works for *anyone* – regardless of income, credit score, or renter status – are better for *everyone*.

Welcome to the Learning Circle!

- Participants moving beyond “101” level have:
 1. Joined the first two sessions
 2. Identified an application of tariffed on-bill financing for energy efficiency that they want to pursue or explore
- Sessions will feature more direct dialogue and reserve more time for exchange to delve deeper on specific topics
- Questions related to your project can benefit from follow-up attention so *be active in entering your questions throughout.*

Drawing on Experience

- ✓ **D. Maurice Kreis**, Consumer Advocate for the Public Utilities Commission of New Hampshire; counsel to Commission when it first approved tariffed on-bill programs
- ✓ **Harlan Lachman**, Principal of Energy Efficiency Institute and one of the creators of Pay As You Save® (PAYS®)
- ✓ **David Neal**, Staff Attorney for Southern Environmental Law Center
- ✓ **Holmes Hummel, PhD.**, founder of Clean Energy Works to mobilize more investment in the clean energy economy, open to all through inclusive financing;



Why focus on Consumer Interests within the Learning Circle Series?

- **Consumer advocates** and community based organizations often represent public interests in utility proceedings.
- The interests of **low-income customers** are typically prioritized because they are most vulnerable to the impacts of rate increases and other rule changes.
- Understanding lines of inquiry commonly raised by consumer advocates is important, as is providing **responsive answers**.

Why focus on Consumer Interests within the Learning Circle Series?

- First session: Showed how inclusive financing through tariffed on-bill programs removes barriers to EE for consumers.
- Most offering tariffed on-bill programs have chosen to use the PAYS[®] system for program design – as did all 3 in the second session.
- Field results reported by utilities in multiple states indicate a majority of consumers receiving an offer of investment say, “Yes.”
 - Consumer protections are an essential part of program designs that yield high rates of “Yes”

Consumer Protections in Inclusive Financing for Energy Efficiency

- Terms in the Pay As You Save[®] (PAYS[®]) system
- Tariffed terms binding on successor customers
- Disconnection for non-payment
- Quality Assurance and Measurement & Verification
- Q & A

Field experience shows this is an Offer That Works

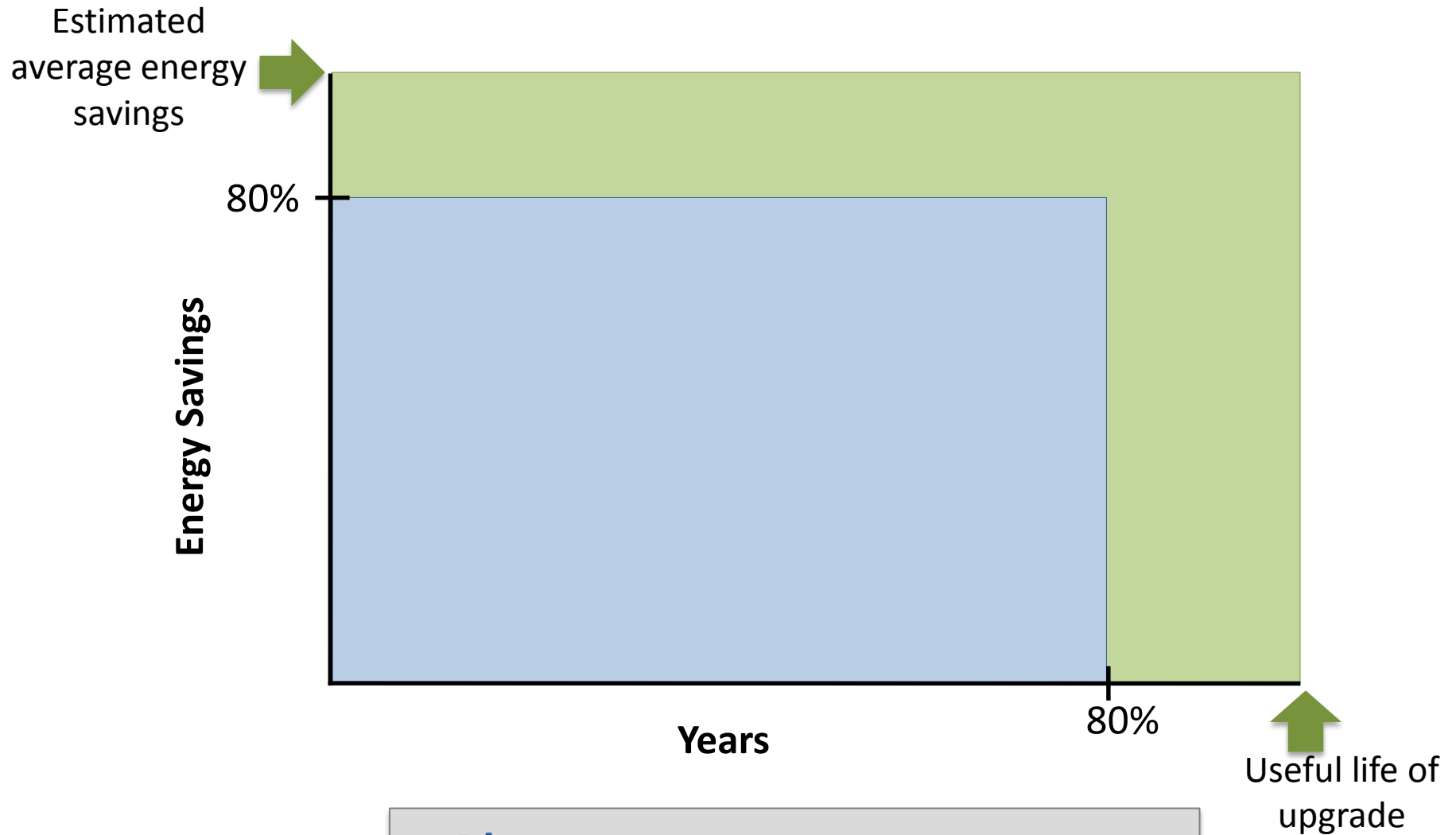
- “Energy saving upgrades are installed in your building and you pay nothing upfront.
- Your utility pays for the installation. A charge that is significantly less than the estimated savings is added to your bill.
- You have no loan, no lien, and no debt with this transaction; just lower bills.
- If an upgrade fails and is not repaired or if you move, the program charges end, if you have maintained the upgrades.”

**Among customers who receive this offer,
the majority say “Yes.”**

PAYS® Assurance of Net Savings

- **Savings are not guaranteed:**
 - Specific savings depend on occupant behavior
 - Savings analysis has inherent margin of error
- **PAYS® promise:**
 - Estimated annual savings significantly exceed annual on-bill charges
 - **80% rule:** Customer's estimated savings equals or exceed their charges by 25%
 - Better than “bill neutral” offers: Fewer upgrades may qualify, but many more customers participate

PAYS® Assurance of Net Savings



$$\frac{\text{Blue}}{\text{Green}} = \frac{0.8 * 0.8}{1.0} = \frac{0.64}{1.00} = \frac{2}{3}$$

More Consumer Assurances with PAYS®

- **Contractors:** Training programs, certification requirements, bonding, penalties for failed inspections
- **Open competition:** Contractors and suppliers bid to participate in the utility program
 - Program buying power ensures best products installed at low prices
 - Contractors assume liability for subcontractors
- **Disputes:** Binding arbitration quickly resolves problems outside of court; no reported instances of its use

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Southern Environmental Law Center

SouthernEnvironment.org

Members Save Money While Saving Power:

Roanoke Electric Cooperative
Leads the Way with a Debt-Free
On-Bill Program for Energy Efficiency

On-Bill Financing: Opportunity and Innovation

Energy efficiency is one of the least expensive and most under-utilized resources available to meet our energy needs. Efficiency measures also help us save money on our electric bills and contribute to cleaner air and a healthier environment. Over the last twenty years, on-bill financing ("OBF") programs have increasingly been used to pay for upgrades that allow customers to realize these benefits.

Most commonly, OBF programs have worked like a loan: the utility or private lender loans the customer money for upgrades—such as improved insulation, more efficient heating and cooling systems, and duct sealing. Participating customers repay the loan for those upgrades with an added monthly charge on their power bill. But these traditional OBF programs are not accessible to those who could most benefit. It is difficult for these programs to serve: (1) low or moderate-income customers who pay the highest percentage of their income on electricity and have the least capacity to take on new debt; (2) renters who have split incentives with their landlord; and/or (3) customers who do not have good credit. Roanoke

Electric Cooperative ("Roanoke") has eliminated these barriers with its Upgrade to Save program.

Under Upgrade to Save, Roanoke members can opt in to a voluntary tariff that (1) allows the utility to pay for energy efficiency upgrades that provide immediate savings on the member's electric bill, and (2) allows the utility to recover its costs through a fixed charge on the bill that is less than the total estimated savings. Roanoke's program is modeled on the trademarked Pay As You Save® ("PAYS®") program that has been successfully implemented in other states.¹ To pay for its investments in energy efficiency, Roanoke is drawing upon low cost financing available through the Energy Efficiency & Conservation Loan Program ("EEOLP") launched last year by USDA's Rural Utilities Service.

Program Structure

Upgrade to Save is a tariff-based program. Because it is structured as a tariff, no personal loans are made to members. Participation does not depend on the members' credit scores. Members in good standing² with Roanoke are eligible to opt in to the tariff. With that agreement, the utility can invest in cost-effective energy efficiency upgrades and recover its costs while the participating members can anticipate saving money on their electric bills.³ The tariff is tied to the meter where the upgrades are installed. No obligation to repay Roanoke for the upgrades follows the member if he or she moves out of the building. Instead, the tariff would apply to any subsequent tenant or occupant until the costs of the upgrades have been recouped.

Upgrade to Save does not incentivize Roanoke's members to purchase more electricity from the Electric Membership Cooperative ("EMC") or to install new equipment that will use additional electricity from Roanoke. In fact, the goal of the program is for members to purchase less electricity and pay decreased electric bills, without increasing costs for members who have not opted in to the program.⁴ This reduced consumption also helps Roanoke by

SELC has fielded stakeholder inquiries about tariffed on-bill programs that require legal expertise, and the findings are included in three memos:

1. [Members Save Money While Saving Power](#)
2. [Tariffed on-bill programs have met with approval by Public Utility Commissions](#)
3. [Coops have the authority to offer a PAYS tariff](#)



Utility Authority to Apply Tariffed Terms to Successor Customers

- Tariffed on-bill programs are subject to the same rules as any other utility tariff
- Tariffs must be “just and reasonable” and cannot be unreasonably discriminatory
 - These criteria apply whether a utility is regulated by a state utility commission or an elected board.
- A PAYS tariff is reasonable and does not result in undue discrimination:
 - The costs for upgrades are paid by those who most directly benefit
 - Tariff is designed to result in lower bills
 - Estimated savings exceed tariffed cost recovery charge

Utility Authority to Apply Tariffed Terms to Successor Customers

Four key points in the consideration of successor customers:

- Commissions in NH, HI, KS, KY and AR have accepted the position that utilities are entitled to full cost recovery for their demand-side investments just as they are for investments in supply.
- Because there is no assignment of debt to a customer in a tariffed on-bill program, there is no obligation to transfer from one customer to another.
- The terms of the tariff apply to the meter until all costs are recovered, and tariffed charges survive foreclosure proceedings, changes in tenancy, and periods of vacancy.
- Building owners are obligated to disclose to prospective buyers or renters that the utility has invested in upgrades and is recovering its costs at the site with a charge less than the estimated savings.

Consumer Protections in Inclusive Financing for Energy Efficiency

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Disconnection for Non-Payment

- Commissions in NH, HI, KS, KY, and AR have agreed that tariffed on-bill investments are essential utility services and that participation benefits customers.
- Just like all other essential utility services, the utility's existing rules for disconnection apply to the initial and successor customers at a location at which upgrades have been installed through a tariffed on-bill program.
- None of the utilities offering a tariffed on-bill program have reported exercising disconnection due to non-payment from a program participant.


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Best Practices in Quality Assurance

- Workforce development
 - Professional training and qualifications)
 - Mentorship and other ongoing professional education opportunities
- Photos support visual inspection
- Site inspections for a sample set of sites (3-10%)
- Preference for products with warranties; offer service contracts for mechanical equipment to qualify for extended warranties
- Actively solicit customer feedback at multiple points

Measurement & Verification: Uniform Method Protocols

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UNIFORM METHODS PROJECT FOR DETERMINING ENERGY EFFICIENCY PROGRAM SAVINGS

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Under the Uniform Methods Project, DOE is developing a set of protocols for determining savings from energy efficiency measures and programs. The protocols provide a straightforward method for evaluating gross energy savings for residential, commercial, and industrial measures commonly offered in ratepayer-funded programs in the United States. The measure protocols are based on a particular International Performance Verification and Measurement Protocol (IPMVP) option, but provide a more detailed approach to implementing that option. Each chapter has been written by technical experts in collaboration with their peers, reviewed by industry experts, and subject to public review and comment.

ABOUT THE UNIFORM METHODS PROJECT

Learn more about the protocols, benefits, and structure of the Uniform Methods Project.

PROTOCOLS

You can read the individual protocols or all of them combined into a single report titled *[The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures.](#)*



The Uniform Methods Project protocols help determine the energy savings from specific energy efficiency measures and programs.

UMP CONTACTS

Michael Li

Measurement & Verification: Uniform Method Protocols



COMBINED COMMERCIAL AND RESIDENTIAL

[Small Commercial and Residential Unitary and Split System HVAC Cooling Equipment-Efficiency Upgrade Evaluation Protocol](#) (April 2013)

[Whole-Building Retrofit with Consumption Data Analysis Evaluation Protocol](#) (April 2013)

CROSS-CUTTING

These crosscutting topics are referenced in measure-specific protocols and are not efficiency measures. These supplemental discussions help extend the measure-specific method for determination of savings to evaluating whole programs.

[Metering Cross-Cutting Protocols](#) (April 2013)

[Peak Demand and Time-Differentiated Energy Savings Cross-Cutting Protocols](#) (April 2013)

[Sample Design Cross-Cutting Protocols](#) (April 2013)

[Survey Design and Implementation Cross-Cutting Protocols for Estimating Gross Savings](#) (April 2013)

[Assessing Persistence and Other Evaluation Issues Cross-Cutting Protocols](#) (April 2013)

[Estimating Net Savings: Common Practices](#) (September 2014)



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Measurement & Verification: Uniform Method Protocols



Chapter 8: Whole-Building Retrofit with Consumption Data Analysis Evaluation Protocol

The Uniform Methods Project: Methods for Determining
Energy Efficiency Savings for Specific Measures

Consumer Protections in Inclusive Financing for Energy Efficiency

- Terms in the Pay As You Save[®] (PAYS[®]) system
- Applying the tariffed terms to successor customers
- Disconnection for non-payment
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- Q & A

Questions?

Next Session:

Thursday, April 20, 2:00 p.m. - 3:00 p.m. EST

Decision Tool for Utility Managers:

Key considerations before investing in resource efficiency and rooftop solar through a tariffed on-bill program

Downloading this guide and reading through it in advance will help participants get the most out of the session.

Have a colleague or contact who would benefit from this Learning Circle? Invite them to apply! Email Wesley Holmes (wholmes@seealliance.org) for a link to the Registration Form.

Beyond the Basics:

Learning Circle on Inclusive Financing

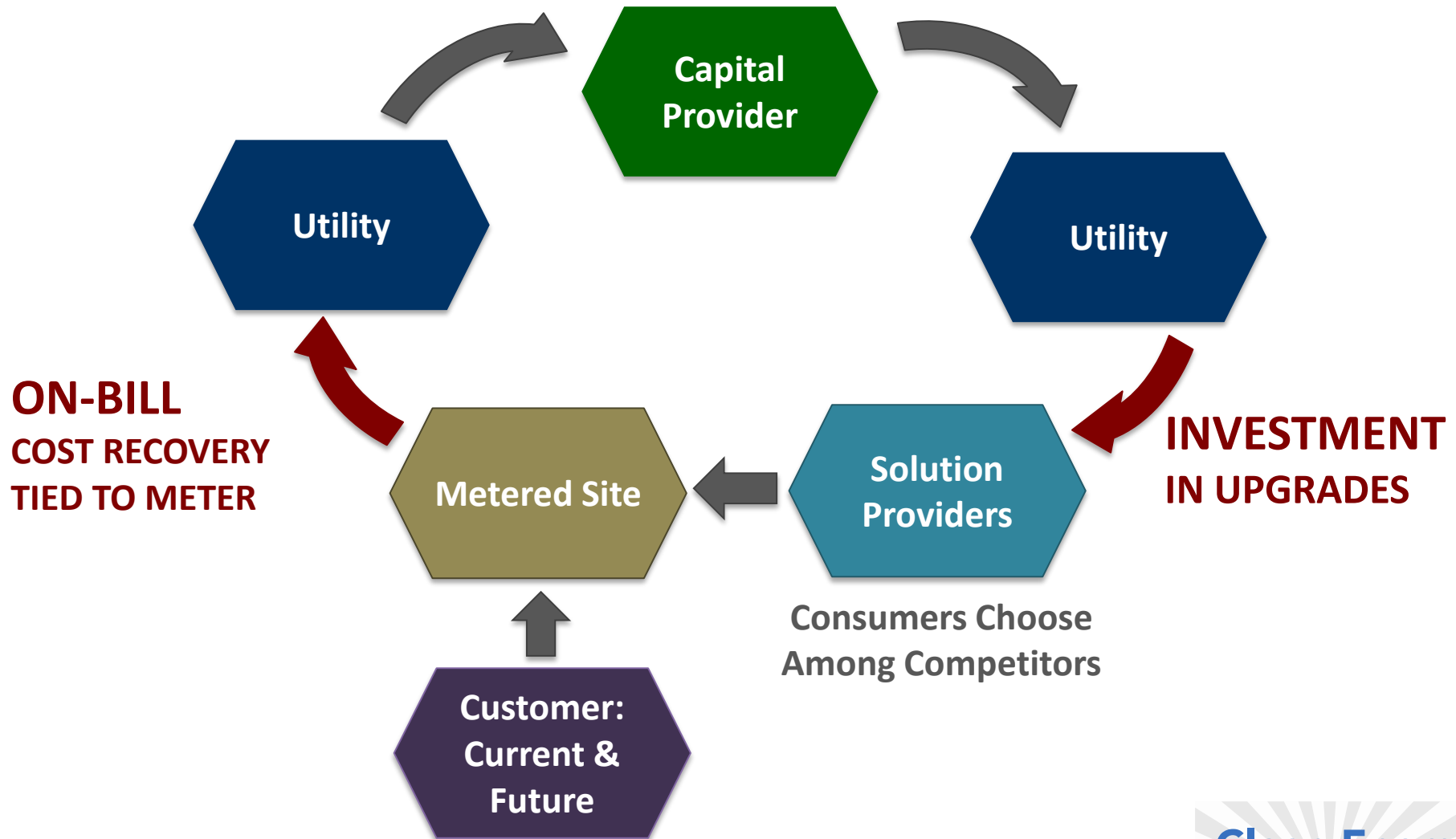
1. Introduction to Inclusive Financing for Energy Efficiency
2. Update on Existing Programs
3. Consumer Protections in Inclusive Financing for Energy Efficiency
4. Due diligence with the *Decision Tool for Utility Managers*
5. Exploring Program Operator models
6. Establishing a Reserve Fund for tariffed on-bill EE programs
7. Sourcing capital for a Tariffed On-Bill investment program
8. Jobs: Workforce development in rapidly expanding EE markets

A large, light blue circular logo is centered on the page. It features several concentric, wavy lines that create a sense of motion or a stylized globe. The lines are of varying thickness and are arranged in a way that suggests a spiral or a series of overlapping waves.

www.SEEALLIANCE.org

PAY AS YOU SAVE[®] (PAYS[®])

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.



Opt-in Tariff for On-Bill Energy Efficiency: Approved by Utility Commissions in Kansas, Kentucky, and Arkansas

PAY AS YOU SAVE® (PAYS®) ON-BILL PROGRAM MODEL TARIFF

- 1 **Engineering:** Subject to an optional and voluntary terms to any cooperative member who takes service under any rate schedule for energy efficiency improvements (upgrades) where the cooperative provides electric service to the structure. It shall not be a requirement that the structure be all-electric.
- 2 **Participation:** To participate in the Program, a member must: 1) request from the cooperative an analysis of cost effective upgrades, 2) agree to the terms of the cost effectiveness analysis fee as described in Section 2.2, and 3) review the Purchase Agreement that defines member benefits and obligations, and implement any project that does not require an upfront payment from the member as described in Section 3.3.
- 3 **Energy Efficiency Plans:** The cooperative will have its Program Operator or approved energy efficiency contractor perform a cost effectiveness analysis and prepare an Energy Efficiency Plan (Plan), identifying recommended upgrades to improve energy efficiency and lower power costs.
- 3.1 **Incentive Payment:** The cooperative may make an incentive payment for program participation that is less than or equal to the value of the upgrades to the cooperative.
- 3.2 **Net Savings:** Recommended upgrades shall be limited to those where the annual Program Service Charges (Service Charges), including program fees and the cooperative's cost for capital are no greater than 80% of the estimated annual benefit from reduction to members' annual utility charges based on current rates in electricity and/or gas costs.
- 3.3 **Copy Option:** In order to qualify a project for the Program that is not cost effective, Members may agree to pay the portion of a project's cost that prevents it from qualifying for the program as an upfront payment to the contractor. The cooperative will assume no responsibility for such upfront payments to the contractor.
- 3.4 **Cost Effectiveness Analysis Fee:** If the cost of the cost effectiveness analysis exceeds the value to the cooperative of upgrades accepted by members for installation, the cooperative will recover from participants the portion of the cost for the analysis that is greater than the value of the upgrades to the cooperative. The utility will not recover costs for the analysis if the Energy Efficiency Plan concludes that proposed upgrades are cost effective only with a copy. The cooperative will recover all of its costs for the analysis at a location from a member who declines to install upgrades identified in an Energy Efficiency Plan that does not require a copy.
- 3.5 **Existing Buildings:** Projects that address upgrades to existing buildings deemed unlikely to be habitable or to serve their intended purpose for duration of service charges will not be approved unless other funding can effect necessary repairs.
- 4 **Approved Contractor:** Should the member determine to proceed with implementing The Plan, the cooperative shall determine the appropriate monthly Program Charge as described below. The member shall sign the Agreement and select a contractor from the cooperative's list of approved contractors.
- 5 **Quality Assurance:** When the energy efficiency upgrades are completed, the contractor shall be paid by the cooperative, following on-site or telephone inspection and approval of the installation by the cooperative or its Program Operator.

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- 6 **Program Service Charge:** The cooperative will recover the costs for its investments including any fees as allowed in this tariff through monthly Service Charges assigned to the meter at the location where upgrades are installed and paid by members occupying that location until all cooperative costs have been recovered. Service Charges will also be set for a duration not to exceed 80% of estimated life of the upgrades or the length of a full parts and labor warranty, whichever is less and in no case longer than twelve years. The Service Charges and duration of payments will be included in the Purchase Agreement.
 - 6.1 **Cost Recovery:** No sooner than 45 days after approval by the cooperative or its Program Operator, the member shall be billed the monthly Program Charge as determined by the cooperative. The cooperative will bill and collect Service Charges until cost recovery is complete except in cases discussed in Section 7.
 - 6.2 **Termination of Program Charge:** Once the cooperative's costs for Upgrades at a location have been recovered, the monthly Program Charge shall no longer be billed, except as described in Section 7.
 - 6.3 **Extension of Program Charge:** As described in Section 6 or for any other reason, if the monthly Service Charge is reduced or suspended, once repairs have been successfully effected or service reconnected, the number of total monthly payments shall be extended until the Service Charges collected equal the cooperative's cost for installation as described in Section 5. The duration of Service Charges will also be extended if there are missed payments and the current occupant is still benefitting from the upgrades in order for the cooperative to recover its costs to install upgrades at a location.
 - 6.4 **Tied to the Meter:** Until cost recovery for upgrades at a location is complete or the upgrades fail as described in Section 7, the terms of this tariff shall be binding on the metered structure and any future member who shall receive service at that location.
 - 6.5 **Disconnection for Non-Payment:** Without regard to any other Commission or cooperative rules or policies, the Service Charges shall be considered as an essential part of the customer's bill for electric service, and the cooperative may disconnect the metered structure for non-payment of Service Charges under the same provisions as for any other electric service.
 - 7 **Repairs:** Should, at any future time during the billing of Service Charges, the cooperative determine that the installed Upgrades are no longer functioning as intended and that the occupant, or building owner if different, did not damage or fail to maintain the upgrades in place, the cooperative shall reduce or suspend the Program Service Charges until such time as the cooperative and/or its contractor can repair the upgrade. If the upgrade cannot be repaired or replaced cost effectively, the cooperative will waive remaining charges.
- If the cooperative determines the occupant, or building owner if different, did damage or fail to maintain the upgrades in place, it will seek to recover all costs associated with the installation, including any fees, incentives paid to lower project costs, and legal fees.
- The Service Charges will continue until cost recovery is complete.

The model tariff here is based on the most recent filing, unanimously approved in Arkansas.

**Clean Energy
WORKS**

Pay As You Save® and PAYS® are trademarks of Energy Efficiency Institute, Inc.

Attributes	Home Energy Lending Program (HELP)	HELP PAYS®
• Residential participants are eligible	✓	✓
• Renters are eligible		✓
• No credit score check or no debt to income ratios	✓	✓
• No upfront participant cost	✓	✓
• Estimated savings <u>must exceed</u> cost recovery charges by 20%		✓
• Participant signs a loan or promissory note for a debt obligation	✓	
• Participant accepts an opt-in utility tariff (NOT a debt) tied to meter		✓
• Cost recovery is through a fixed charge on the utility bill	✓	✓
• Participant accepts tariff with disconnection for non-payment		✓
• Payments end if upgrade fails and is not repaired		✓
• Tariff runs with the meter and remains in effect for subsequent customer at that location until cost recovery is complete		✓