WEBINAR SERIES

INTRODUCTION TO INCLUSIVE FINANCING FOR ENERGY EFFICIENCY

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
- Innovative Finance
SEEA’s Leadership in the Southeast

- 2014 Arkansas Energy Office Statewide Financing Options Study
- 2014 North Carolina On-Bill Working Group
- 2015 SEEA webinar with CEO of Roanoke Electric
- 2015 SEEA conference in 2015: The Roanoke Center
- 2016 SEEA conference in 2016: 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.
As interest grows, you are in good company:

- Utility managers
- Consumer advocates
- Utility commission staff
- State energy offices
- Community-based organizers
- Solution providers
Holmes Hummel, PhD
Principal, Clean Energy Works

- Founded Clean Energy Works to mobilize more investment in the clean energy economy, open to all through inclusive financing
- Former Senior Policy Advisor in the Department of Energy’s policy office (2009-2013)
- Winner of FiRe Award at the Bloomberg “Future of Energy Summit” for championing PAYS® as a high-impact innovation in finance
- Advisor to utilities on business plan development for investments in cost effective distributed energy solutions
Introduction to Inclusive Financing for Energy Efficiency

• Making the case for more inclusive solutions

• Overview of tariffed on-bill programs

• Comparison to other on-bill financing approaches

• Precedents in the field

• More opportunities to learn
Addressing first-cost barriers:
Addressing first-cost barriers:

Rebate

Upfront Cost

SAVINGS

Year 10
Paying for cost effective efficiency upgrades

After all rebates and public funds are applied, customers face these options for the balance:

- Pay Cash
- Pay with Credit
- Decline the upgrades

Rate-payer or Public funds

$ Hundreds

Customers

$ Thousands in upgrades per participant
Addressing first-cost barriers:

- Rebate
- Upfront Cost

Year 10
Addressing first-cost barriers with funding **and** financing:
Addressing first-cost barriers with funding and financing:

Year 10

Rebate
Common qualifying criteria for financing:

“Are you a homeowner?”

“Do you have a good credit score?”

“Do you have solid income?”
Barriers to Financing in the Clean Energy Economy: Example - Property Ownership

More than $\frac{1}{3}$ of all U.S. households are in homes they don’t own.

Source: U.S. Census Bureau, 2015
Estimated Percent of Population in Poverty
All ages by County, 2011

Note: Alaska and Hawaii not shown to scale.
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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.

ON-BILL COST RECOVERY TIED TO METER

INVESTMENT IN UPGRADES

Pay As You Save® and PAYS® are trademarks of Energy Efficiency Institute, Inc.
A Program Operator can aid implementation

ON-BILL COST RECOVERY TIED TO METER

INVESTMENT IN UPGRADES

Pay As You Save® and PAYS® are trademarks of Energy Efficiency Institute, Inc.
Example: Roanoke Electric’s Pay As You Save® and PAYS® are trademarks of Energy Efficiency Institute, Inc.
PAYSA® Offer –
Here’s how it works:

- Energy saving upgrades are installed in your home or building, and you pay nothing upfront. The utility pays for the installed energy solution.

- To recover its costs, the utility puts a fixed charge on your electric bill that is significantly less than the estimated energy savings from these upgrades.

- You have no loan, no lien, and no debt associated with this transaction; just lower utility bills and a more comfortable home.

- When the utility recovers its costs, your obligation to pay ends.

- If you leave this location sooner, or if an upgrade fails and is not repaired, your obligation to pay ends if you have followed your responsibilities.
Opt-in Tariff for On-Bill Energy Efficiency: Approved by Utility Commissions in Kansas, Kentucky, and Arkansas

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

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Example Transaction:  

Single story home, upgraded with insulation, air sealing, and heat pump

- **Investment:** $10,000
- **Cost Recovery Period:** 15 years
- **Cost of Capital:** 3%
- **Estimated Savings:** $100 / month
- **Charge:** -$70 / month
- **Net Savings to Customer:** $30 / month, ~30% of savings
- **Energy Savings:** 8,000 kWh / year

Source: Briefing by MACED, the program operator for the HowSmart KY program. This sample has conveniently round numbers; average investment size is ~$7500.
<table>
<thead>
<tr>
<th>Attributes</th>
<th>Home Energy Lending Program (HELP)</th>
<th>HELP PAYS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Residential participants are eligible</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• Renters are eligible</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• No credit score check or no debt to income ratios</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• No upfront participant cost</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• Estimated savings <strong>must exceed</strong> cost recovery charges by 20%</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Participant signs a loan or promissory note for a debt obligation</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>• Participant accepts an opt-in utility tariff (NOT a debt) tied to meter</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Cost recovery is through a fixed charge on the utility bill</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• Participant accepts tariff with disconnection for non-payment</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Payments end if upgrade fails and is not repaired</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Tariff runs with the meter and remains in effect for subsequent customer at that location until cost recovery is complete</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Paying for cost effective efficiency upgrades

After all rebates and public funds are applied, the remaining balance yields these options:

- Pay Cash
- Pay on Credit
- Decline the upgrades

Rate-payer or Public funds

Rebates

$ Hundreds

Customers

$ Thousands in upgrades per participant

Clean Energy WORKS
Paying for cost effective efficiency upgrades

After all rebates and public funds are applied, the remaining balance yields these options:

- Pay Cash
- Pay on Credit
- Decline the upgrades
- **PAYS Offer**

**Capital Markets**

- $Billions of low cost capital available

**Utility**

- $Millions Investment annually

**Rate-payer or Public funds**

- Rebates
- $Hundreds

**Customers**

- $Thousands in upgrades per participant

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$Billions of low cost capital available
**PAY AS YOU SAVE® (PAYS®)**

*Comparison for building efficiency upgrades*

- **Loans**
  - Customer Eligibility: 50%
  - Offer Accepted: 2X
  - Deal Size: $3300
  - Default Rate: 0.3%

- **PAYS®**
  - Customer Eligibility: ~10%
  - Offer Accepted: 5X
  - Deal Size: 2X
  - Default Rate: 10X

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**Investment acceleration is a product of these multiples.**

- ✓ No consumer loan, lien, or debt
- ✓ Reaches renters and low-income
- ✓ Higher uptake rates
- ✓ Deeper energy & carbon savings

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Result: Surge in Investment

Comparing last (and best) 4 months of HELP (Loan) with first 4 months of HELP PAYS® (Tariff):

- **Doubled** customers seeking assessments, and *more than a third* were multi-family (compared to 0 previously).

- Among customers receiving assessments, **100% opt-in for multi-family rental units**, and >80% for single family.

- **Doubled** the scale of capital improvements from an average of $3000 to above $6000 to get deeper energy savings (~30%).

\[
\text{Double customers} \times \text{Double project size} =
\]

- **Quadrupled** investment, soaring from $225k to $1 million.

Example Investment Program:

• **2,400+** efficiency assessments with offers to invest
• **1,400+** investments: More than half of customers say “Yes!”

• ~**$5,700** per building, with co-payment from customer
• **$8+ million** invested
• Less than **0.1%** charge off

• **Annual Savings:**
  – **3.2 million kWh**
  – **386,000** therms
  – **5,200** tons carbon

Source: Midwest Energy, reporting results through August 2015
Cooperative Leadership Matters

More than 90% of persistent poverty counties in the U.S. are served by electric cooperatives.
More than 90% of persistent poverty counties in the U.S. are served by electric cooperatives. Rural communities are leading the way on inclusive financing, and are offering assistance.
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More Introductory Information Online

- **CleanEnergyWorks.org**
  - *Introduction to PAYS®*
  - *Top 20 Questions & Answers*

- **Clean Energy Solutions Center (U.S. DOE)**
  - *Inclusive Financing for Distributed Energy Solutions*

And, join us for the following sessions in this series...
Next Session:
Update on Inclusive Financing Programs in the South
Thursday, February 16th, 2:00 p.m. - 3:00 p.m. EST

Learn from leading program operators who are managing multi-million dollar efficiency investment portfolios in areas of the South that are affected by persistent poverty.
Beyond the Basics:
Learning Circle on Inclusive Financing

1. Introduction to Inclusive Financing for Energy Efficiency (today)
2. Update on Existing Programs (Feb 16th)
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

Learning Circle Series
SEEA Learning Circle for Inclusive Financing

Eligibility:
• Participants in the introductory sessions
• Articulation of a project that furthers your interests

Benefits:
• Opportunity to participate in advanced sessions
• Access to other Learning Circle participants
• Assistance with advancing your project

Contact:  Wesley Holmes, wholmes@seealliance.org
Questions?