

South Carolina Rural Electric Co-ops On-Bill Financing Pilot Program

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NASEO Annual Meeting



Environmental and Energy Study Institute

*Carol Werner,
Executive Director*



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- Founded in 1984 by a bipartisan Congressional caucus, today EESI is an independent 501 (c) 3 non-profit organization that receives no Congressional funding.
- EESI serves as a trusted source of non-partisan information on energy and environment policy development for Congress, businesses, foundations and the general public.
- Visit our website: www.eesi.org to find out more!

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On-Bill Financing for Home Energy Loans

- Provides low-interest loans for residential energy improvements, eliminating upfront costs for the homeowner
- Loan repayment added to homeowner's monthly utility bill
- Payment history used in lieu of credit checks
- Positive cash flow for the homeowner: Payments structured to be smaller than the projected energy savings

Pilot Partners

- EESI, with support from the Doris Duke Charitable Foundation
- Electric Cooperatives of South Carolina
- Central Electric Power Cooperative
- Ecova



Shape Up Your Home for Energy Savings

South Carolina Electric Cooperatives

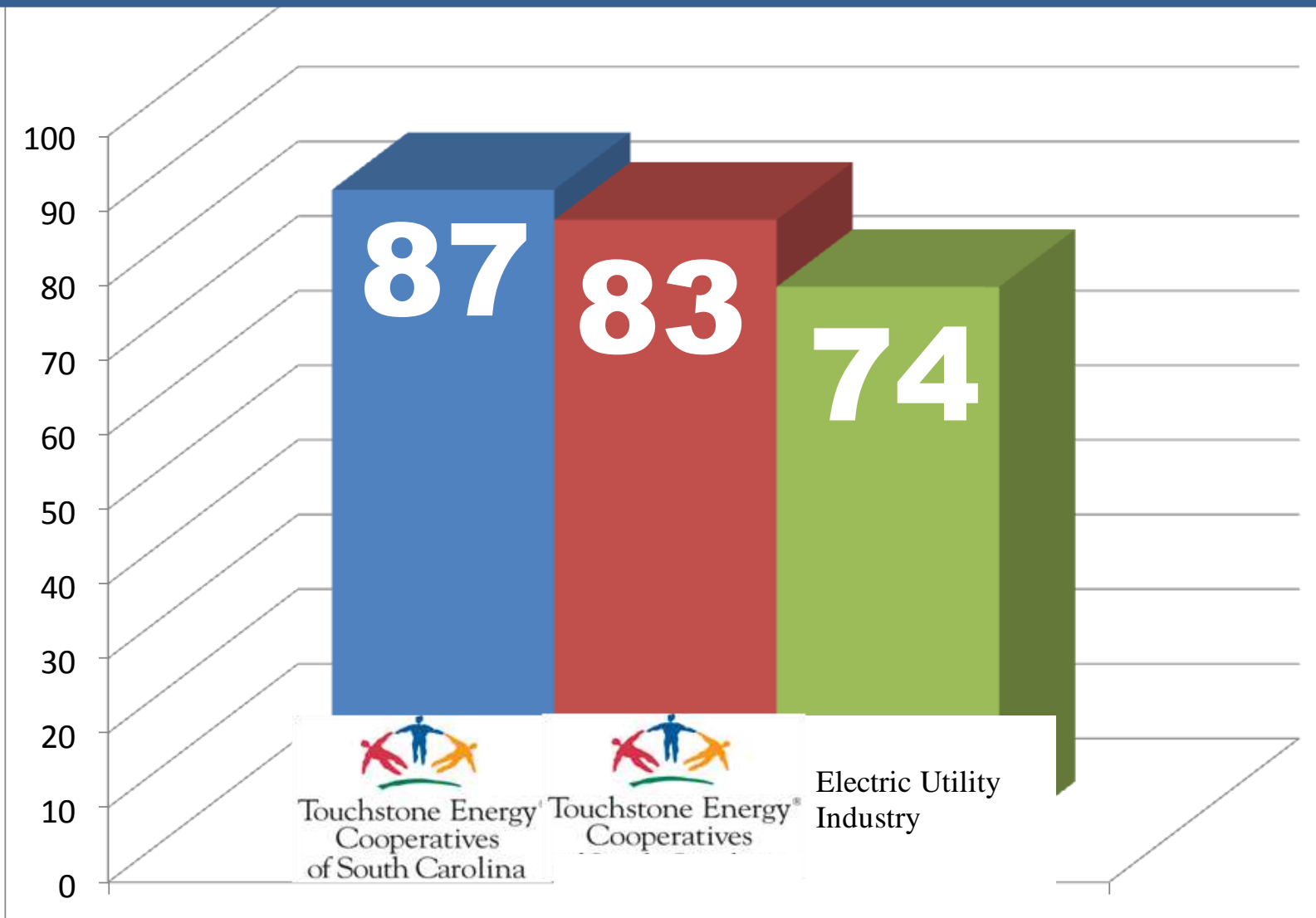
- 20 electric distribution cooperatives
- Serve more than 1.5 million individuals in all 46 counties
- Contribute \$1.4 billion per year to the state economy



South Carolina Cooperative Members

- 24% live in manufactured housing (three times the national average)
- 50% more likely to live below the poverty line
- In some months, many may spend 60-80% of income on energy
- 26% of SC counties (12 out of 46) qualify as Persistent Poverty Counties*
 - *(Defined as any county with a poverty rate of 20% or higher in every census 1970-2010)

Customer Satisfaction: Co-ops vs. IOUs



Source: American Customer Satisfaction Index, Q1 2011. For S.C., most recent.

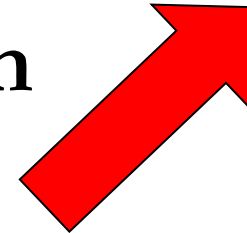
SC Cooperatives' Overall Goals

- Improve residential energy efficiency (10% by 2020)
- Reduce residential use and per-unit wholesale power costs (demand controls)
- Improve consumer's relationship with local co-op (both participant & non-participants)

Three Targets for Lending

	Homes	MWh saved per year
Weatherization	160,000	290,000
Replace resistance heating	60,000	550,000
Replace old heat pumps	32,000	183,000
		1,023,000

10% Reduction in Residential Use



A Huge Payoff

Energy efficiency retrofits & other residential programs

Energy and Consumer Forecast for 2020	Residential total
Energy (MWh)	13,344,000
Goal -- save 20%	<u>X 0.20</u>
Energy efficiency savings (MWh)	2,668,800

20% Reduction in Residential Use



Projected Impacts of Full-Scale Program

- Energy savings
 - 2,700,000 megawatt-hours per year.
- Consumer savings
 - \$270 million per year.
- Reduced CO₂ emissions
 - up to 2.4 million metric tons per year.
- Thousands of jobs
- Avoid paying for ½ of a nuclear unit (\$4 billion)

One Member's Story

\$518 Dec. 2008

\$ 95 Dec. 2009

\$ 423 Saved

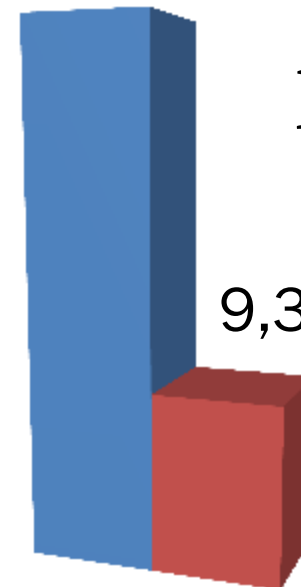


Linda Butler

10 Month Savings

- 20,309 kWh
- \$1,882 total savings
- \$188 monthly average

29,638



kWh Savings

9,329

■ 2009 ■ 2010

Help My HOUSE!

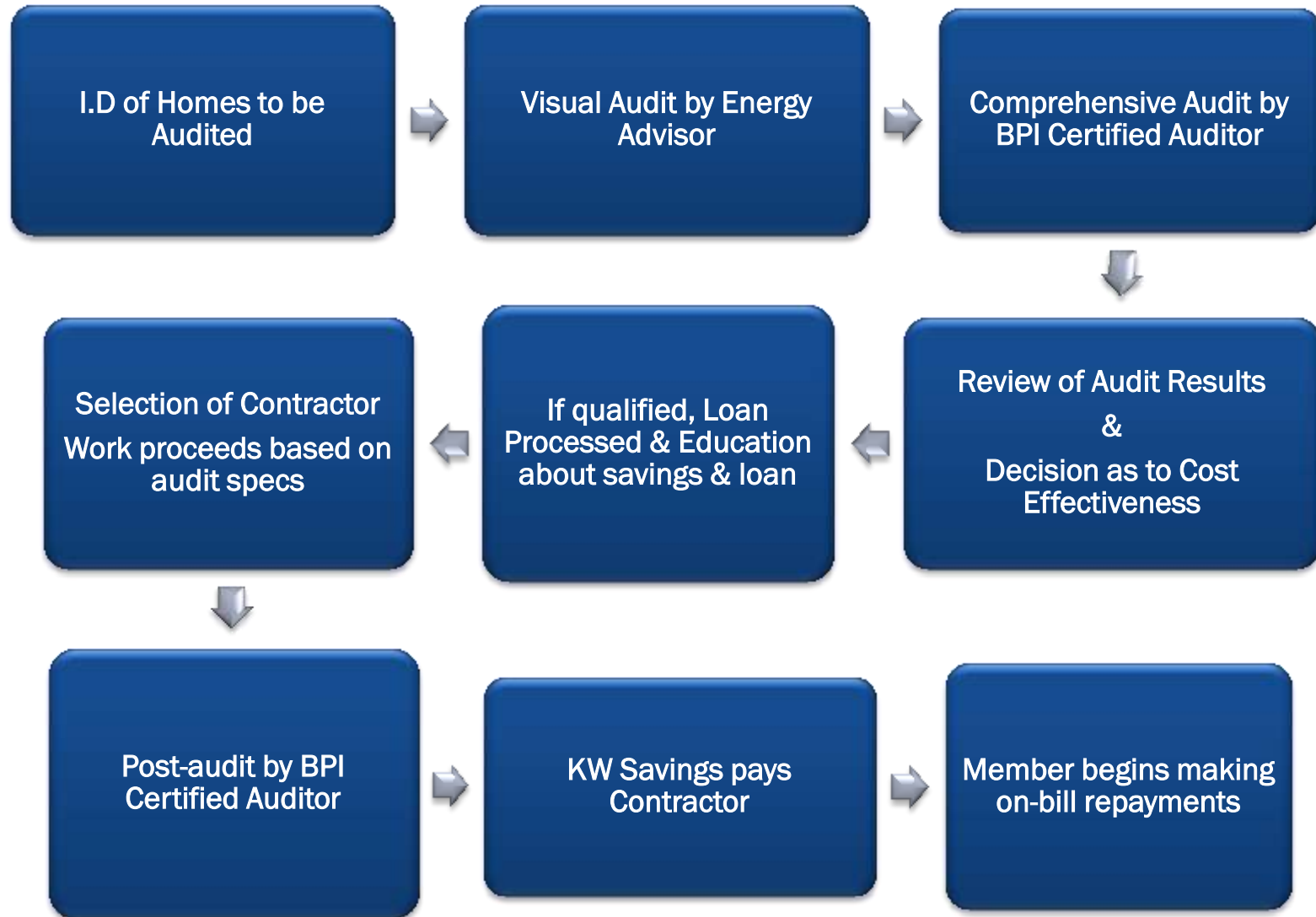


Shape Up Your Home for Energy Savings

Loan Program Pilot

How the Process Works

Core Transaction Process



The Visual Audit



- A walk-through inspection by a co-op “Energy Advisor” (EA)
- Helps determine if home qualifies for pilot
- If home is eligible, EA asks member to complete a loan app, orders initial (BPI) audit

Processing the Loan Application



- Application sent to 1st Cooperative Federal Credit Union
- Comprehensive audit (BPI) scheduled in the home

The Initial Audit (“Test In”)

- Confirms (or not) that home qualifies for pilot and loan
- Defines measurable efficiency targets for the home and contractor
- Prescribes the work needed



Member Gets Estimate(s)

- Homeowner calls qualified contractor(s) for bids
- Member notifies the EA when a bid has been accepted
- EA collects bid info, forwards to credit union so final loan documents can be created and sent back to the co-op



Finalizing the Loan

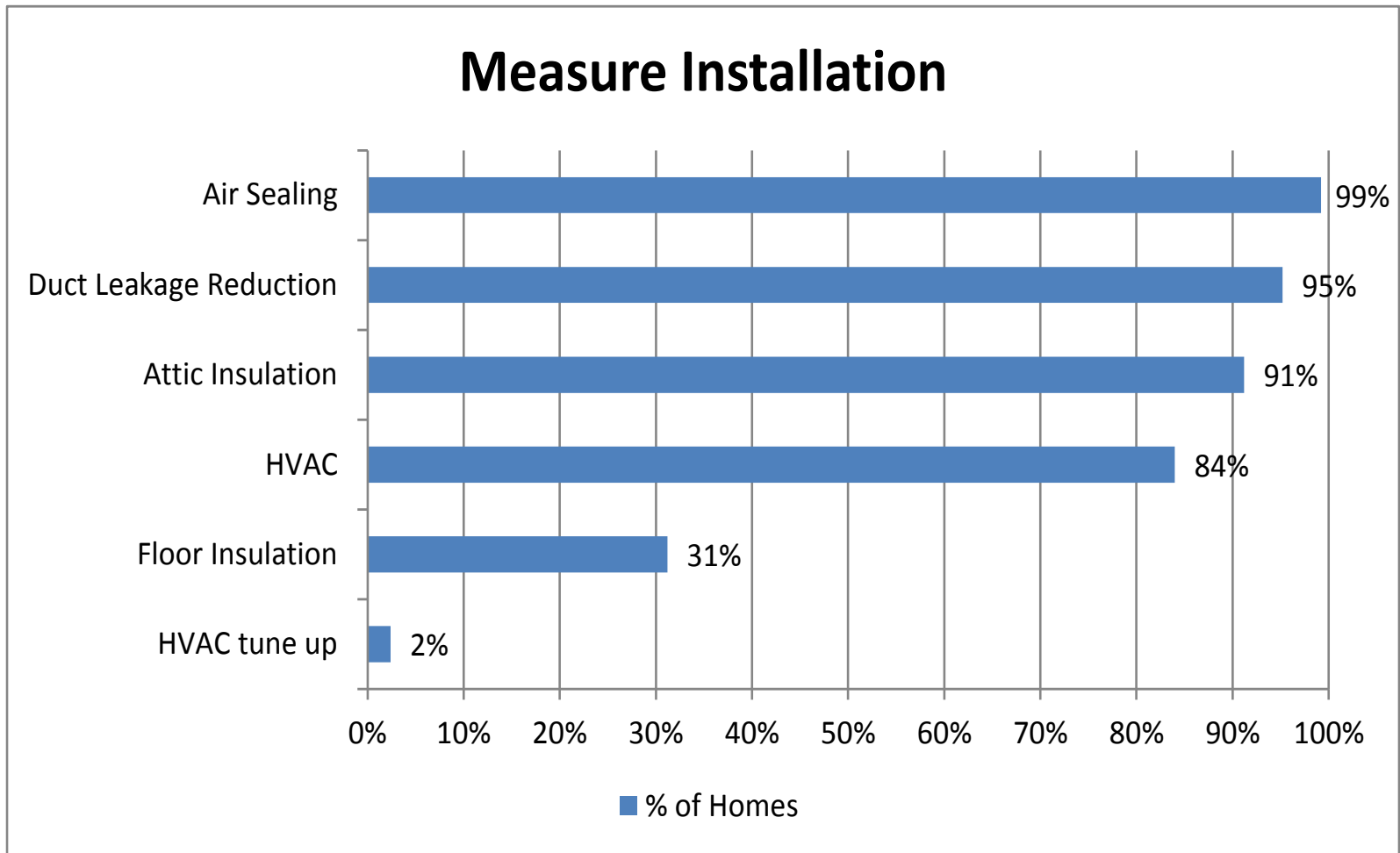


- Member signs loan documents
- 2.5% loan, most often over a 10-year period
- After three-day waiting period, work can begin on the home

The Home is Weatherized



Home Improvement Measures



The Exit Audit (“Test Out”)



- EA orders second BPI audit to check home's performance after work is completed
- If targets are met, co-op notifies KW Savings and contractor gets paid
- If targets are not met, contractor must return, correct problems, await follow up audit
- **Important quality assurance for members!**

Loan Payments Begin



- Member begins paying back the loan on monthly electric bill
- Co-ops monitor and record impact of efficiency upgrades on energy use and bills vs. historical use in each home

Early Results and Projections

- Avg. act. project costs per home : **\$7,262**
- Avg. est. annual savings per home: **\$1,240**
- Projected positive cash flow on 10-yr term at 2.5% interest rate
- Average est. payback: **5.86 years**
- Pilot demonstrated “deep impact” savings that averaged estimated **35%** per home
- Collecting data through Feb 2013

Early Results and Projections

Projected Energy Savings from the Average Home Participating in the Pilot

	MONTHLY	ANNUAL
Projected Electric Savings (kWh)	933	11,191
Projected \$ Savings	\$103	\$1,240
Loan Repayment	\$73.22	\$878.64
Net (Savings – Loan)	\$33.62	\$403.44

Help My House Standards

- **Consumer Quality Assurance** – bookend Energy Audits (BPI standards)
- **Oversight of Loan Processing** – by 1st Cooperative Federal Credit Union
- **Data Collection** – commitment to share usage history, home and consumer demographics, post-retrofit usage and other data points
- **Shared Business Plans** – for approval by the KW Savings board

Member Survey Results

- 96% satisfied with quality of work
 - 83% very satisfied
- 96% more comfortable in their homes
 - 77% are a lot more comfortable
- 92% liked how the pilot was put together

Rural Energy Savings Plan (RESP)

- Proposed federal loan program to support on-bill financing projects
- To be managed by USDA's Rural Utility Service
- Would provide 0% loans to co-ops and public utilities for up to 20 years
- Passed by House in Sept 2010 with bipartisan vote (\$993 million over five years)
- Passed by Senate in June 2012 as part of the farm bill (funding levels not specified)
- Supported by National Rural Electric Cooperatives Association (NRECA)

RUS Proposed Rule

- Proposed \$250 million per year loan program to rural electric utilities for energy efficiency projects
- Co-ops would be charged the direct Treasury rate
- SC pilot encouraged USDA to move forward
- **Comments due September 24**
 - Should the funding cap be \$250 million?
 - What are the appropriate performance thresholds?
 - Should fuel switching be eligible?

For More Information

- EESI fact sheets at www.eesi.org
 - [“Help My House” On-Bill Financing Pilot in South Carolina](#)
 - [Rural Energy Savings Program](#)
 - [On-Bill Financing, Helping Homeowners Implement Energy Efficiency Improvements](#)
- [RUS Proposed Rule for EE Loan Program](#)
- Contact:

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