



Better Buildings Residential Network Peer Exchange Call Series: *Innovative Approaches to Financing*

February 16, 2017

Call Slides and Discussion Summary

Agenda

- Agenda Review and Ground Rules
- Opening Poll
- Brief Residential Network Overview and Upcoming Call Schedule
- Featured Speakers
 - **Elizabeth Bellis**, Counsel and Director of Finance Programs, Energy Programs Consortium
 - **Lindsey Smith**, Vice President of Education, The Electric Cooperatives of South Carolina, Inc.
- Discussion
 - What types of financing has your organization used to support home energy upgrades?
 - What financing sources have worked well for your organization and what were the results of such efforts?
 - What challenges and opportunities have you encountered in trying to access funding for your program?
 - What is important to consider when evaluating new financing options?
 - Other questions, lessons, or issues related to innovative approaches to financing?
- Closing Poll

Better Buildings Residential Network

Better Buildings Residential Network: Connects energy efficiency programs and partners to share best practices and learn from one another to increase the number of homes that are energy efficient.

Membership: Open to organizations committed to accelerating the pace of home energy upgrades.

Benefits:

- Peer Exchange Calls 4x/month
- Tools, templates, & resources
- Recognition in media, materials
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- Residential Program Solution Center guided tours

Commitment: Provide DOE with annual number of residential upgrades, and information about associated benefits.

For more information or to join, email bbresidentialnetwork@ee.doe.gov, or go to energy.gov/eere/bbrn and click Join

Peer Exchange Call Series

***We hold one Peer Exchange call the first four Thursdays of each month
from 1:00-2:30 pm ET***

Calls cover a range of topics, including financing & revenue, data & evaluation, business partners, multifamily housing, and marketing & outreach for all stages of program development and implementation

Upcoming calls:

- February 23: [Making an Impact: Low-Income Energy Efficiency Programs](#)
- March 2: [It's a Beautiful Day in the Neighborhood: Scale Interventions](#)
- March 9: [Who's Got Game? Interactive Customer Engagement Strategies](#)
- March 16: [Sold! Engaging the Real Estate Industry in Home Performance](#)
- March 23: [Effecting Behavior Change: Energy Report Data Usage](#)

Send call topic ideas to peerexchange@rossstrategic.com

See the Better Buildings Residential Network Program [website](#) to register

March Energy Madness: Join the game!



Submit your most creative residential energy-related marketing messages to: peerexchange@rossstrategic.com

Due date: February 17, 2017

Tournament Details:

- We will announce the **Sweet 16** entering the race on the March 2 Peer Exchange call.
- **Call Participants will make their picks** to determine what messages are best in the 8 head-to-head match ups.
- **On each following Peer Exchange Calls in March**, you'll find out who has made it on to the next round and vote on your favorites.
- **The winning message** will be selected on the **March 23 call!**



U.S. Department of Energy
See the [video](#)



Utilitywise
[More information](#)

*Better Buildings
Residential Network
members may be
given priority
consideration.*

Best Practices: Energy Programs Consortium

W H E E L

Warehouse for Energy Efficiency Loans

ELIZABETH BELLIS

Counsel and Director of Finance Programs

February 2017

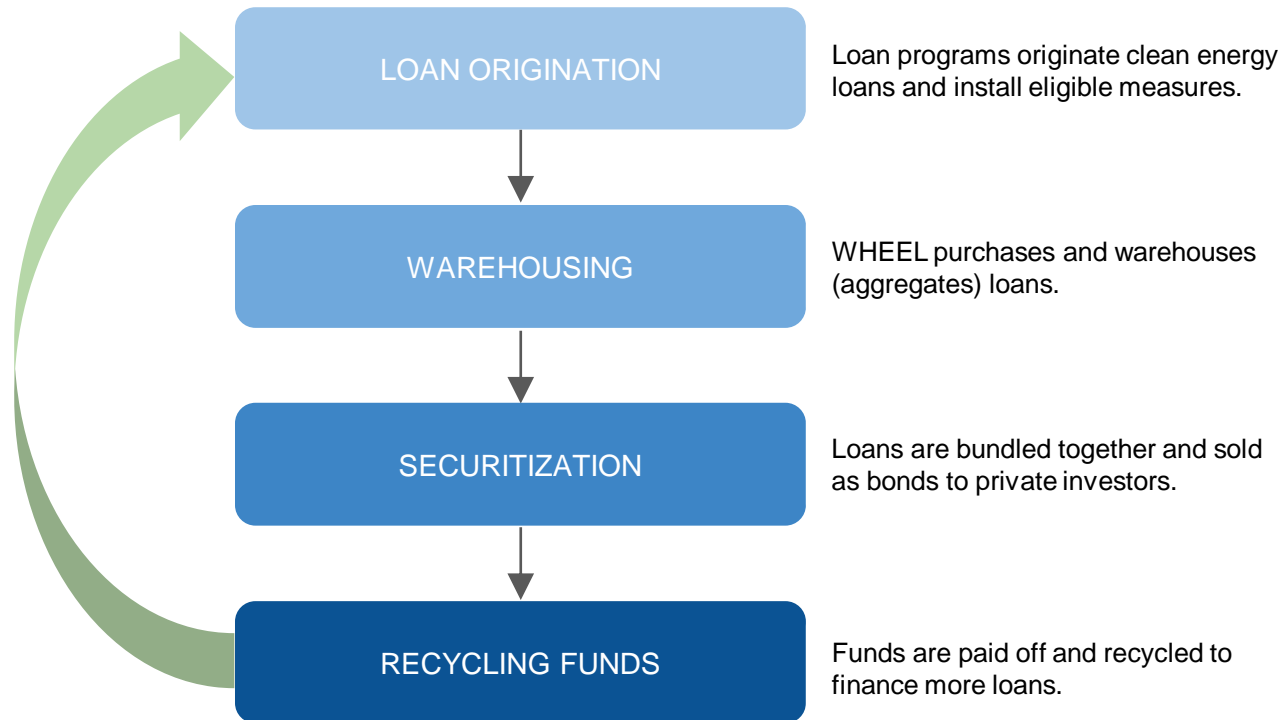


What is WHEEL?

The **Warehouse for Energy Efficiency Loans (WHEEL)**:

- **unsecured residential energy efficiency loan program**: loan backed by a borrower's creditworthiness rather than by tangible collateral. If a borrower isn't able to pay, the borrower will not have their utilities shut off and will lose their home. It is similar to a credit card, except interest rates are fixed and lower and use is limited to efficient items.
- **turnkey approach** for contractor recruitment, management, origination, and loan servicing
- **public-private-philanthropic partnership**: state and local governments and utilities partner with the private and philanthropic sectors to incentivize homeowners to choose energy and water efficient measures and/or resilience measures when improving their homes
- **Addresses “reactive” market**: available when replacing a broken item with a high-efficiency product as opposed to requiring a comprehensive green renovation
- **low-cost financing**: leverages public funds with private capital through the securitization of clean energy loans

How does WHEEL work?





Why securitize energy efficiency loans?

Benefits of Securitization

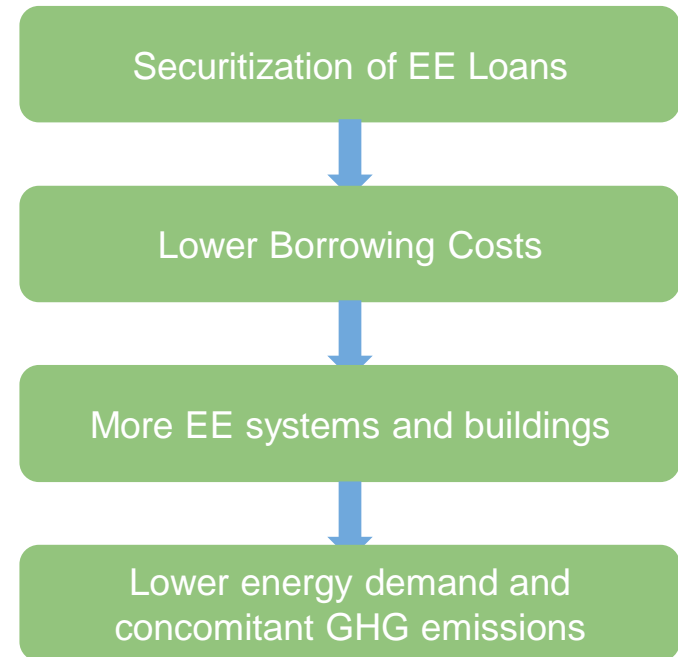
Creates liquidity

Unlocks additional capital

Diversification of source of capital

Allows for risk diversification

Broaden investors' familiarity with the asset class



WHEEL Timeline



WHEEL 1.0

Launched in **April 2014** in Pennsylvania, Kentucky, Cincinnati
Base rate of 9.99% for all borrowers

First securitization

Proof-of-concept first securitization completed in **June 2015**
\$12.58 million backed by \$16 million in energy efficiency loans
Rated “A” by Fitch Ratings

WHEEL 2.0

Launched in **July 2015** in Florida, Kentucky, New York, Pennsylvania
Base rate of 7.99% for all borrowers, plus a 2% dealer fee

WHEEL Underwriting and Terms



Underwriting

- Minimum homeowner FICO credit score of 640
- Debt-to-income ratio of no more than 50%
- No recent bankruptcy
- Fast approval process

Terms

- Loan Tenor: 10 years
- Minimum loan size: \$2,500
- Maximum loan size: \$20,000
- Average loan size: \$9,290.10
- Current interest rate: 7.99%

Questions? Contact us



Elizabeth Bellis

Counsel & Director of Finance Programs

ENERGY PROGRAMS CONSORTIUM

Presentation Highlights: Energy Programs Consortium (1 of 2)

- **Most energy upgrades are reactive purchases.**
 - When home appliances break, homeowners need quick replacements. WHEEL meets them at this crucial decision-point by making energy upgrades easy and readily available.
 - HVAC upgrades are the most common funded through WHEEL.
- By leveraging public and private capital, **WHEEL is able to provide financing at lower rates than a credit card alternative.**
- To ensure that the loans are used properly, WHEEL:
 - **Disperses the funds to the contractor**, and not to the homeowner.
 - **Verifies that all the installations were installed correctly** with selective home walk-throughs.

Presentation Highlights: Energy Programs Consortium (2 of 2)

WHEEL 3.0 will address from the previous program and restructure to:

- **Be in line with the new Dodd Frank Act provisions** requiring all securitization sponsors to retain a certain portion of credit risk.
 - In WHEEL's case, the technical securitization sponsor was the private sector partner, Renew Financial. The program will be updated so that the public funds are recognized for purposes of risk potential as well.
- **Be able to secure new financing opportunities**, such as the EPA Clean Water Fund.
- **Balance the price structure and ensure that the loans remain competitive** as they interact with other private sector products on the market.

Best Practices: The Electric Cooperatives of South Carolina, Inc.

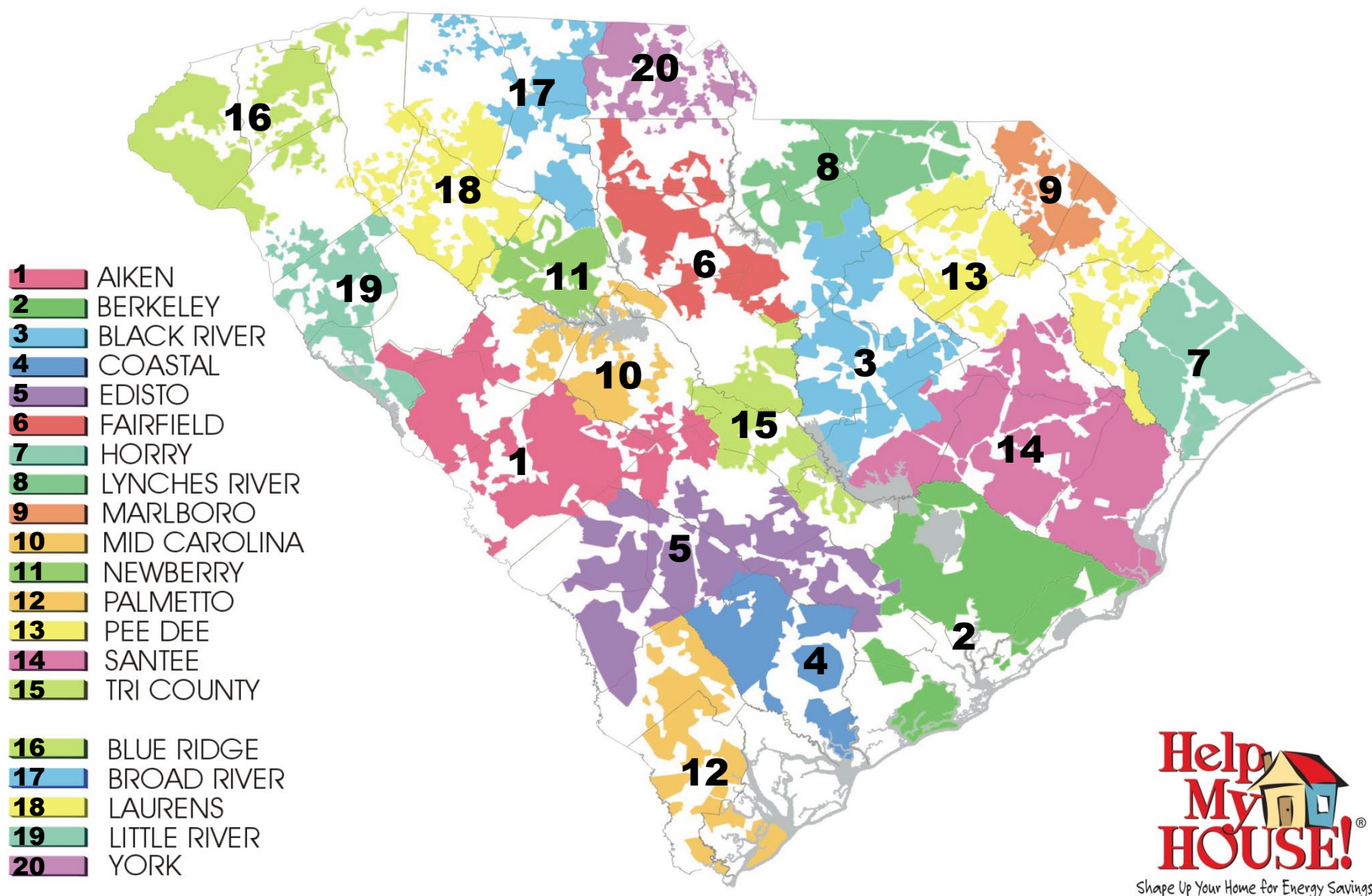


Energy Efficiency Loans and Retrofits to Existing Homes Using On-bill Financing

Lindsey Smith

The Electric Cooperatives of South Carolina
KW Savings Co.

SOUTH CAROLINA'S ELECTRIC COOPERATIVES



A QUICK HISTORY OF HELP MY HOUSE

- 2009: Pres. Obama and Congress fast track energy policy legislation (carbon tax)
 - S.C. electric co-ops develop large scale model for home energy efficiency retrofits w/OBF
- 2010: Rep. James Clyburn (D-SC) sponsors bill for Rural Energy Savings Program Act (RESPA)
 - RESPA passes U.S. House in September 2010, stalls in Senate ahead of November mid-term elections
- 2011: S.C. co-ops decide to test the RESPA model

KEY FACTORS: RISK MANAGEMENT

1. Loans tied to power meter

- Transferrable
- No need for credit checks

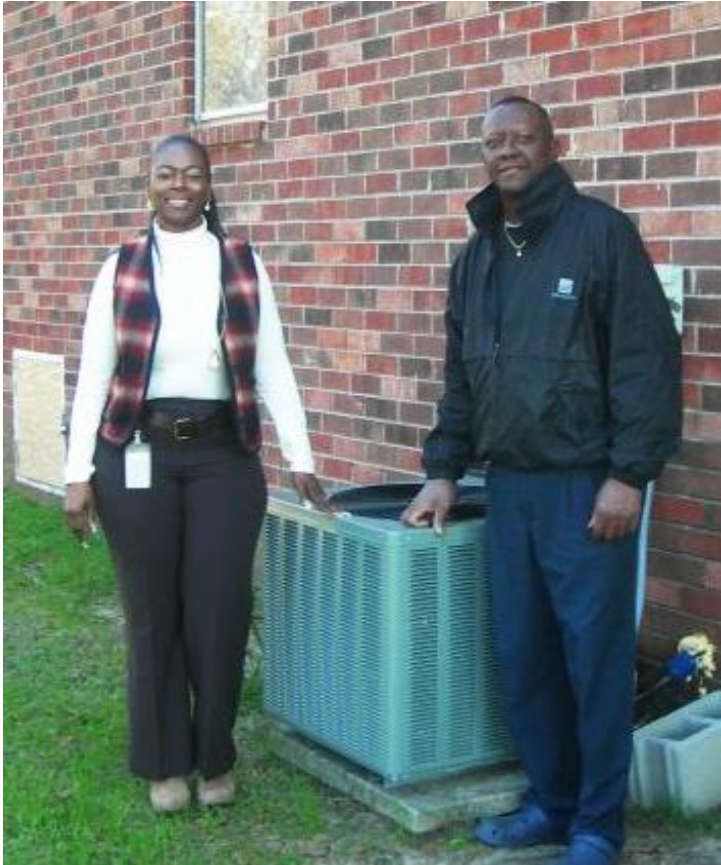
2. Electric bill payment history

3. No pay, no power

- 2010 S.C. law permits disconnects for non-payment of utility loans
- National default rates on power bills are less than 1/10th of 1%



KEY FACTORS: FAST-PAYBACK MEASURES



- Seal and insulate the home & duct work
- Install vapor barriers
- Replace electric furnaces
- Repair or replace older heat pumps

KEY FACTOR: LOW-INTEREST CAPITAL

- **USDA's Rural Economic Development Loan & Grant (REDLG) program**
 - Retooled in 2010 to allow for EE loans
 - 0% interest to borrower (co-ops)
 - 4% or less to S.C. consumers (members)
 - 10 year terms
 - Requires third party “ultimate recipient” to make loans (e.g. KW Savings Co.)
 - Competitive program, high demand

The Help My House Pilot (2011)

- Eight of the 20 co-ops
- 125 homes
- Test 3 Program Goals
 - Improve residential EE
 - Reduce wholesale power costs
 - Improve consumer's relationship with local co-op



ONE YEAR LATER: THE PILOT RESULTS

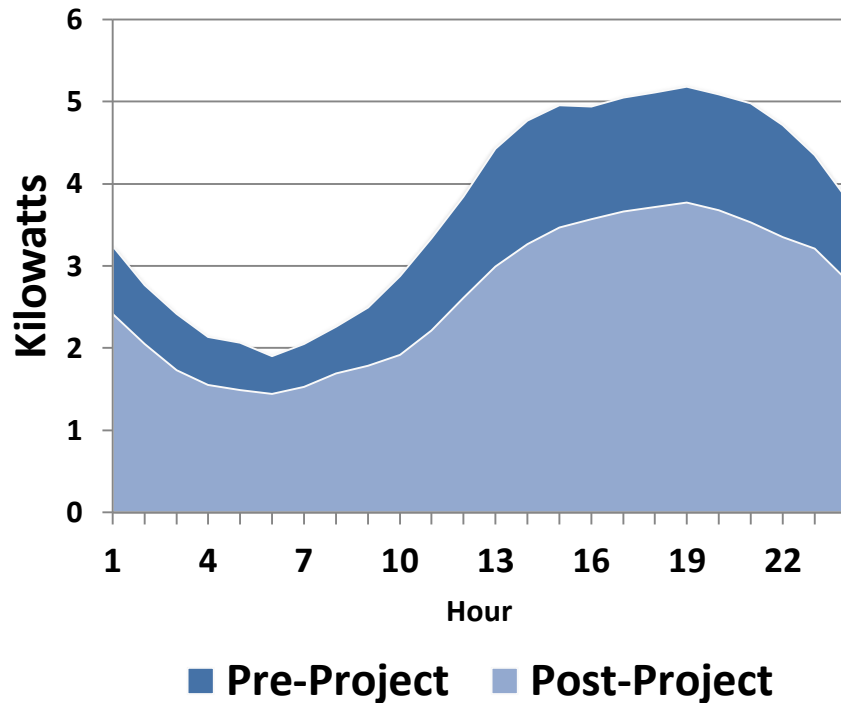
\$1,157		\$288	Annual Net Savings
		\$869	
	Annual Energy Savings		Annual Loan Repayment

*From comprehensive pilot report by *Collaborative Efficiency*, 2013)

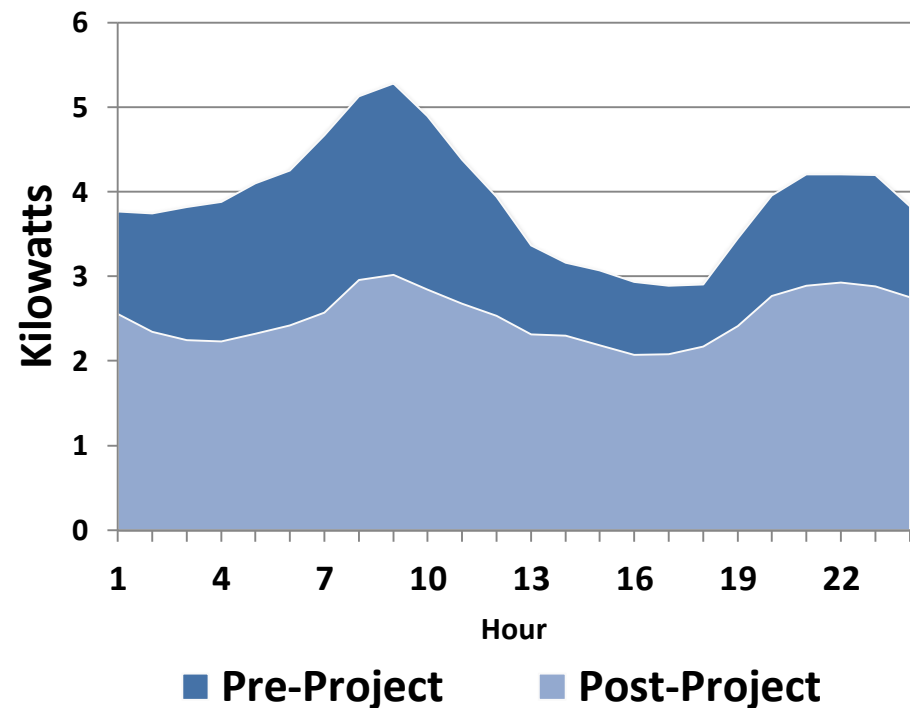
**All values are per home averages for a typical meteorological year.

DEMAND SAVINGS

Average Summer Day Load Shape



Average Winter Day Load Shape



*From comprehensive pilot report by Collaborative Efficiency, 2013)

**All values are per home averages for a typical meteorological year.

Happy Homeowners

- 96% as satisfied or more satisfied with co-op
- 90% say comfort has improved in home
- 90% satisfied with post-retrofit electric bills

Participant satisfaction survey (2012)

THE AVERAGE HELP MY HOUSE HOME...

- Reduces energy use by more than 30%
- Has a combined electric bill and loan payment lower than the electric bill *alone* before EE improvements
- Saves participants more than \$200/yr. *after* loan payments
- Is more comfortable

UPDATE: STILL WORKING THE MODEL

	Homes/Loans Completed
<i>2011 Pilot Program</i>	<i>125</i>
Aiken Electric	238
Santee Electric	183
Black River	54
*York Electric	10
Lynches River Electric	11
Little River Electric	2
Running Total	623

* HVAC controls sub-pilot ended in 2012

HELP MY HOUSE IN 2017

- #2 applicant nationally for new Rural Energy Savings Program from USDA-RUS
 - Model largely mirrors Help My House
- Selling carbon offsets to **Duke University**
- Piloting partnership with faith-based home repair NGO, Home Works of America (health, safety and sanitation repairs)



On-Bill Financing Project Assistance

EESI can provide FREE:

- Details and lessons learned from other working OBF programs
- Evaluation of OBF as a fit for your needs
- Resource identification, help overcoming barriers to launching projects
- Help designing your OBF program
- Help accessing funding
- Advice on program implementation

For more
information:

www.eesi.org/OBF

John-Michael Cross



Energy Efficiency Loans and Retrofits to Existing Homes Using On-bill Financing

Lindsey Smith

The Electric Cooperatives of South Carolina
KW Savings Co.

Presentation Highlights: The Electric Cooperatives of South Carolina, Inc.

- **The Help My House loan program uses a "no pay, no power" approach:**
 - This **provides a high level of financial security** as national default rate on power bills is less than 1%.
 - This **makes the loan transferable**, as the loan is tied to the house, not to the homeowner.
- **It's the home that qualifies, not the homeowner:**
 - Before approving the loan, an inspection of the house is made. **A home is eligible for the loan if the estimated savings can cover the monthly combined electric bill and loan payment.**
 - **Eligible manufactured homes have the greatest savings potential**, with basic energy efficiency upgrades performed, such as replacing the electric furnaces with energy efficient heat pumps.

Discussion Highlights (1 of 2)

Best practices to promote the financial programs and build a strong contractor network:

- Design your campaign for your two key audiences: **contractors and homeowners.**
- **Equip contractors with materials** they can distribute to the homeowners.
- **Meet contractors where they are:**
 - **Annual cooperative meetings and contractor conferences** provide great opportunities for contact.
- **Word-of-mouth is very effective:**
 - When a home is upgraded, other homes in that vicinity follow suit.

Discussion Highlights (2 of 2)

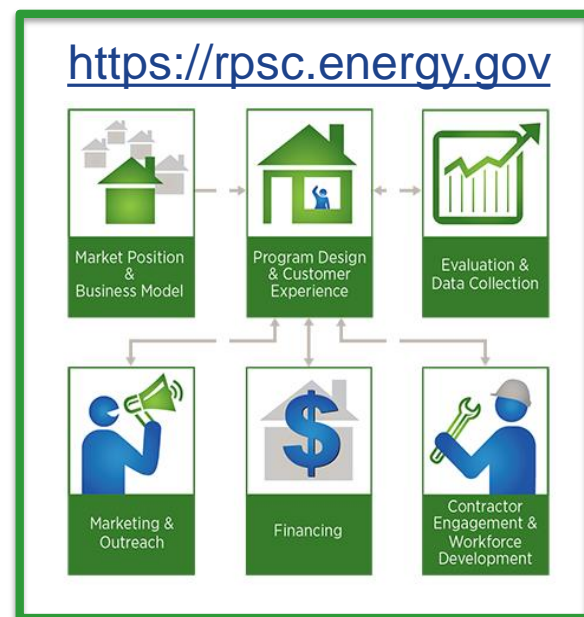
Key considerations and lessons learned when putting in place a residential energy efficiency loan program:

- **Know your community context:** Programs can be more popular in some areas than others, depending on how well-established they are, other financing options available, and communities' needs.
 - For example, in New York competition is high due to an existing concurrent program.
- **Third parties play a key role in:**
 - **Managing the loans** for homeowners and ensuring that the financing is used correctly.
 - **Building and overseeing the contractor network**, including training, feedback, and complaint management.

Related Resources in the Residential Program Solution Center

Explore resources related to innovative approaches to financing:

- Learn about pay-for-performance (P4P) energy efficiency programs in this comprehensive [NRDC analysis](#) of past and current P4P case studies.
- Read this National Housing Trust and Green For All [resource](#) highlighting examples of on-bill repayment programs that advance multifamily energy efficiency.
- Explore this [SEE Action overview](#) of considerations for designing and implementing successful residential energy efficiency financing programs.



- Check out the latest [Proven Practices](#) post on [Recognizing Good Contractor Performance](#).
- The Solution Center is continually updated to support residential energy efficiency programs—[member ideas are wanted!](#)

Additional Resources

- Energy Programs Consortium, [Energy Efficiency Loans for Low and Moderate Income Households: The Warehouse for Energy Efficiency Loans \(WHEEL\) as a Case Study](#), September 2016.
- Environmental and Energy Study Institute (EESI), [EESI's On-Bill Financing Project](#)
- Related Better Buildings Residential Network Peer Exchange Call Summaries:
 - [Diversifying Funding Sources and Building New Revenue Streams \(201\)](#)
 - [On-Bill Financing: Reducing Cost Barriers to Energy Efficiency Improvements \(201\)](#)
 - [Creative Financing Approaches for Residential Energy Efficiency Programs](#)
 - [Loan Programs for Low- and Moderate-Income Households](#)

2017 Better Buildings Summit

Registration is now open!



Be sure to [register today](#) for the 2017 [Better Buildings Summit!](#)



Spread the word:

[#BBSummit17](#) registration is right around the corner. Get ready to learn about expert [#EnergyEfficiency](#) enhancements <http://bit.ly/2iZCMsB>

GET SOCIAL WITH US



Stay engaged and connected with the Better Buildings Residential Network and our partners from the residential and multifamily sectors!

Follow us to plug into the latest Better Buildings news and updates!

Share with us your top stories on how your organization is accelerating energy savings through efficiency upgrades, strategies, and investment!



[Better Buildings Twitter](#) with [#BBResNet](#)

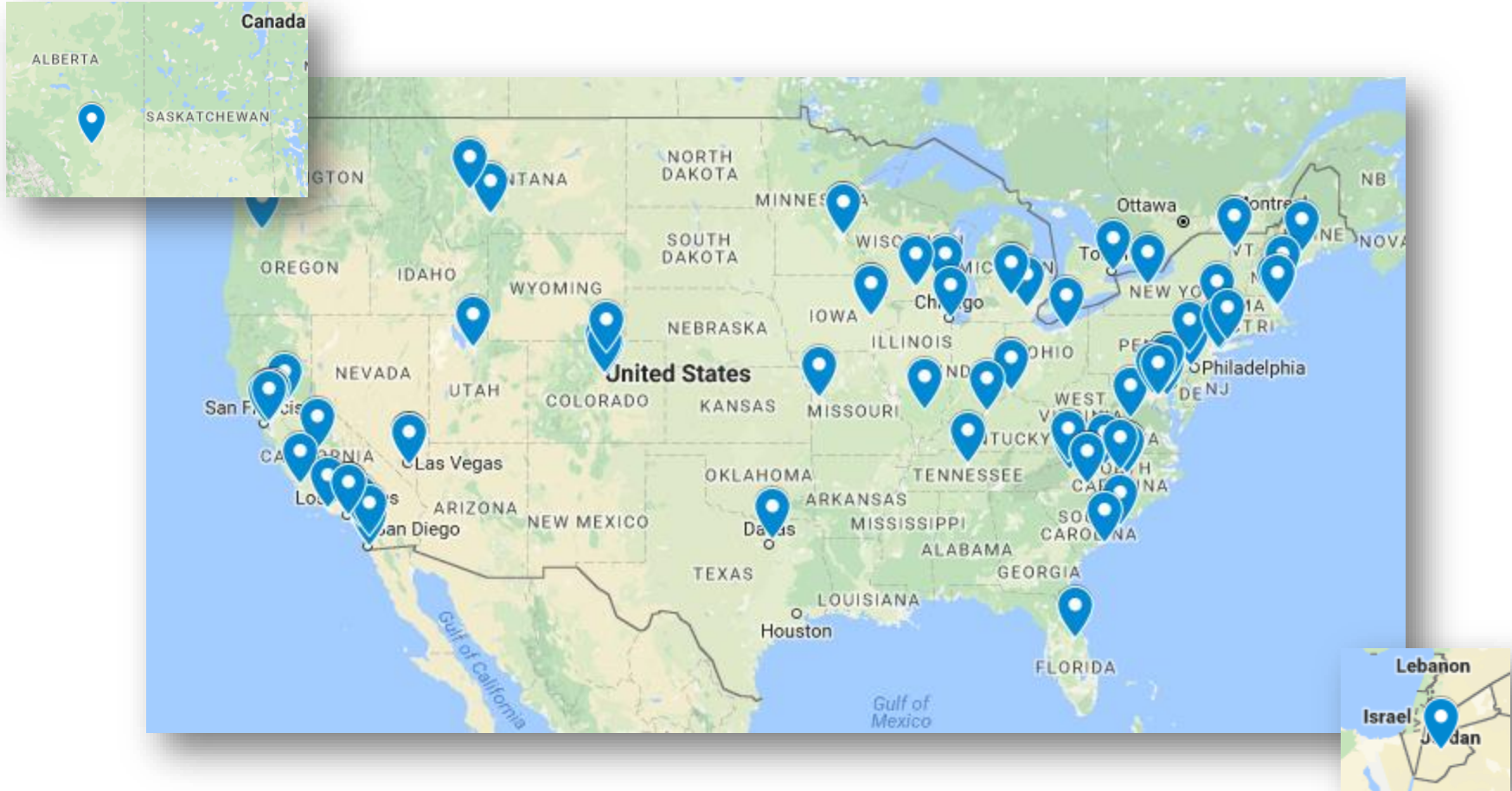


[Better Buildings LinkedIn](#)

We can't wait to hear from you!

Addenda: Attendee Information and Poll Results

Call Attendee Locations



Call Attendees: Network Members (1 of 2)

- Advanced Energy
- AppleBlossom Energy Inc.
- Boulder County
- Build It Green
- Center for Sustainable Energy
- City of Charlottesville
- City of Fort Collins
- City of Plano
- City of Somerville
- CLEAResult
- Cleveland Public Power
- Connecticut Green Bank
- Efficiency Maine
- Greater Cincinnati Energy Alliance
- International Center for Appropriate and Sustainable Technology (ICAST)
- Institute for Market Transformation (IMT)
- Michigan Saves

Call Attendees: Network Members (2 of 2)

- North Carolina Sustainable Energy Association
- Northeast Energy Efficiency Partnerships (NEEP)
- North Carolina Building Performance Association
- New York State Energy Research & Development Authority (NYSERDA)
- Rocky Mountain Institute
- Seventhwave
- Vermont Energy Investment Corporation (VEIC)

Call Attendees: Non-Members (1 of 3)

- Alliant Energy
- Appalachian Voices
- BKi
- Blue Ridge EMC
- Brand Cool
- Consortium for Energy Efficiency
- City of Ann Arbor
- City of Greensboro
- City of Milwaukee
- City of Mount Vernon
- Design-Manage-Sustain LLC
- Energy Freedom Coalition of America (EFCA)
- Enbridge Gas Distribution
- Energy Management Services
- Environmental and Energy Study Institute (EESI)
- Environmental Finance Center at University of North Carolina at Chapel Hill
- Eric Kjelshus Energy Heating and Cooling
- Green & Healthy Homes Initiative
- Green Compass Sustainability

Call Attendees: Non-Members (2 of 3)

- Greenspring Building Systems Inc.
- Hunter Industries, Inc.
- Home Ventilating Institute (HVI)
- Local Government Commission
- Local 20/20
- Local Initiatives Support Corporation
- Miriam Wrobel Consulting
- Minnesota Department of Commerce
- Minnesota Pollution Control Agency
- Montana Department of Environmental Quality
- NANA Regional Corporation, Inc.
- New Ecology Inc.
- Nexant
- New York City Housing Development Corporation
- Off The Grid Renovations, LLC.
- Office of the People's Counsel
- People's Self-Help Housing

Call Attendees: Non-Members (3 of 3)

- Real Estate Maximums (RE/MAX)
- Renew Financial
- Sage Computing
- Southern California Regional Energy Network (SoCalREN)
- Sustainable South Bronx
- Tierra Resource Consultants, LLC
- TRJ Construction Inc.
- Tennessee Valley Authority
- U.S. Department of Housing and Urban Development
- Utah Governor's Office of Energy Development
- Ventura County Regional Energy Alliance (VCREA)
- Ygrene Energy Fund

Opening Poll

- Which of the following best describes your organization's experience with innovative approaches to financing?
 - Limited experience/familiarity – **31%**
 - Some experience/familiarity – **27%**
 - Very experienced/familiar – **21%**
 - No experience/familiarity – **17%**
 - Not applicable – **4%**

Closing Poll

- After today's call, what will you do?
 - Seek out additional information on one or more of the ideas – **64%**
 - Make no changes to your current approach – **27%**
 - Consider implementing one or more of the ideas discussed – **9%**
 - Other (please explain) – **0%**