



**Better Buildings Residential Network Peer
Exchange Call Series: *On Bill Financing:
Reducing Cost Barriers to Energy
Efficiency Improvements (201)***

October 8, 2015

Call Slides and Discussion Summary

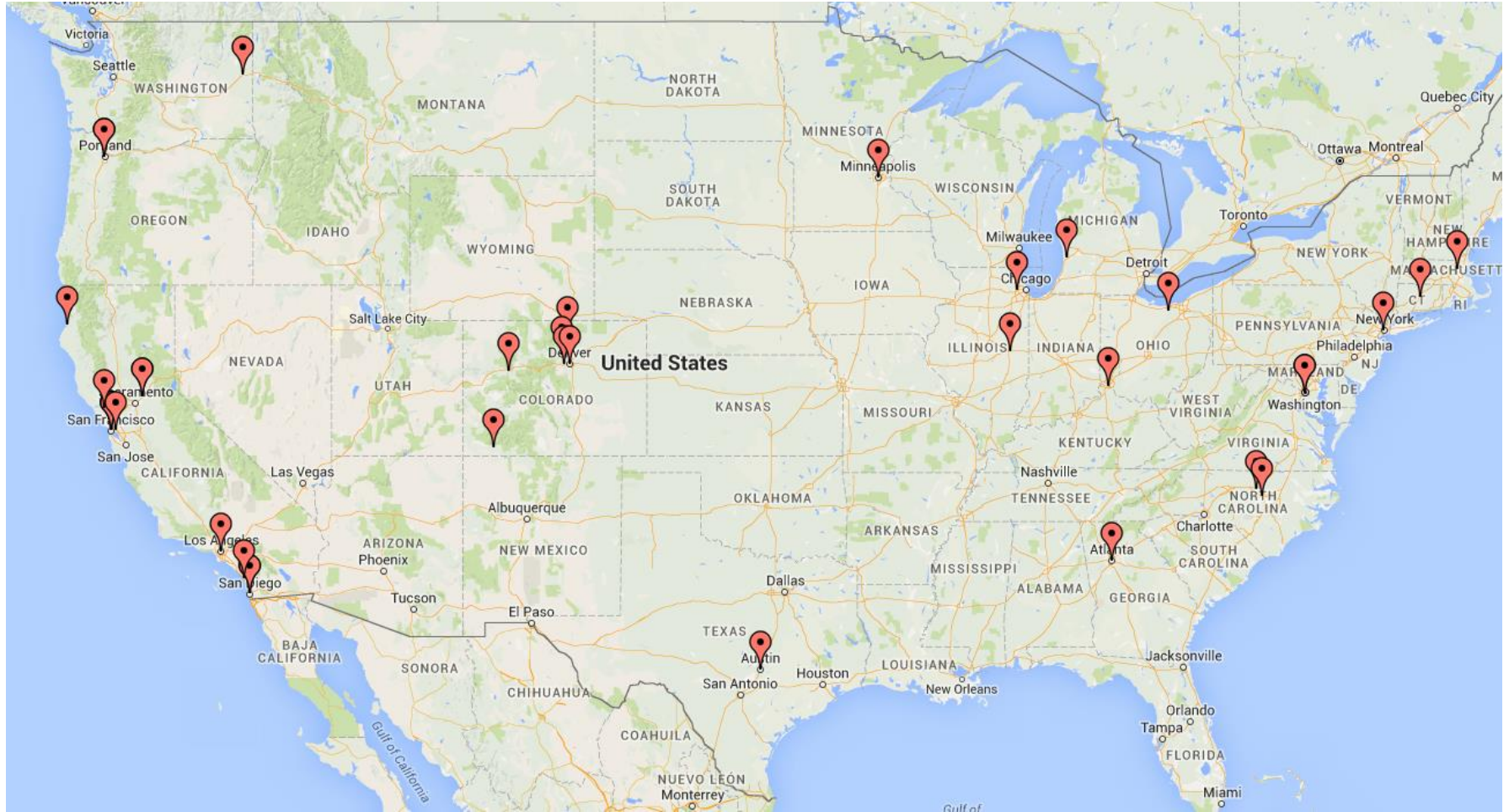
Call Participants: Residential Network Members

- Center for Sustainable Energy
- City of Holland, Michigan
- Connecticut Green Bank
- EnergySavvy
- Energy Smart
- Greater Cincinnati Energy Alliance
- Mitsubishi Electric Cooling and Heating
- Northeast Energy Efficiency Partnerships
- Southeast Energy Efficiency Alliance
- Spirit Foundation
- The Oberlin Project

Call Participants: Non-Members

- BlueGreen Alliance Foundation
- CLEAResult
- ComEd
- County of Sonoma, California
- Craft3
- Ecology Action
- Energy Systems Group
- Environmental and Energy Study Institute
- Environmental Design/Build
- Holy Cross Energy
- La Plata Electric Association
- National Housing Law Project
- National Renewable Energy Laboratory
- OptiMiser Energy
- Owens Corning
- Pacific Gas & Electric Company
- Redwood Energy
- Smart Energy Design Assistance Center
- University of North Carolina Environmental Finance Center

Call Participant Locations



Agenda

- Agenda Review and Ground Rules
- Opening Poll
- Brief Residential Network Overview
- Featured Speakers
 - **Lindsey Smith**, Electric Cooperatives of South Carolina (ECSC)
 - **Greg Leventis**, Lawrence Berkeley National Laboratory (LBNL)
- Discussion
 - Are there other examples of on-bill financing programs? What lessons have programs learned?
 - What are the challenges of implementing an on-bill financing program? What strategies can help mitigate those challenges?
 - What kind of consumer demand have programs observed for on-bill financing?
 - How has performance of on-bill financing compared with other financing programs?
 - Are there other questions, best practices, or lessons learned that you would like to share?
- Closing Poll and Upcoming Call Schedule

Opening Poll

- Which of the following best describes your organization's experience with on-bill financing?
 - **Limited experience/familiarity – 36%**
 - Very experienced/familiar – 29%
 - Some experience/familiarity – 29%
 - No experience/familiarity – 7%
 - Not applicable – 0%

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

Residential Program Solution Center

Web portal of residential EE upgrade program resources, & lessons learned to plan better, avoid reinventing the wheel.

- BB Neighborhood Program, Home Performance with ENERGY STAR Sponsors+
- Provides:
 - Step-by-step guidance
 - Examples
 - Tools and Templates
 - Quick Links and Shortcuts
 - Lessons learned
 - Proven Practices posts – see the latest on [Tiered Financing](#)
 - Tips
- Continually add content to support residential EE upgrade programs—[member ideas wanted!](#)



<https://bbnp.pnnl.gov/>

**Program Experience: Lindsey Smith,
Electric Cooperatives of South Carolina
(ECSC)**



Energy Efficiency Retrofits and On-bill Financing for Existing Homes: A Replicable Model

October 8, 2015

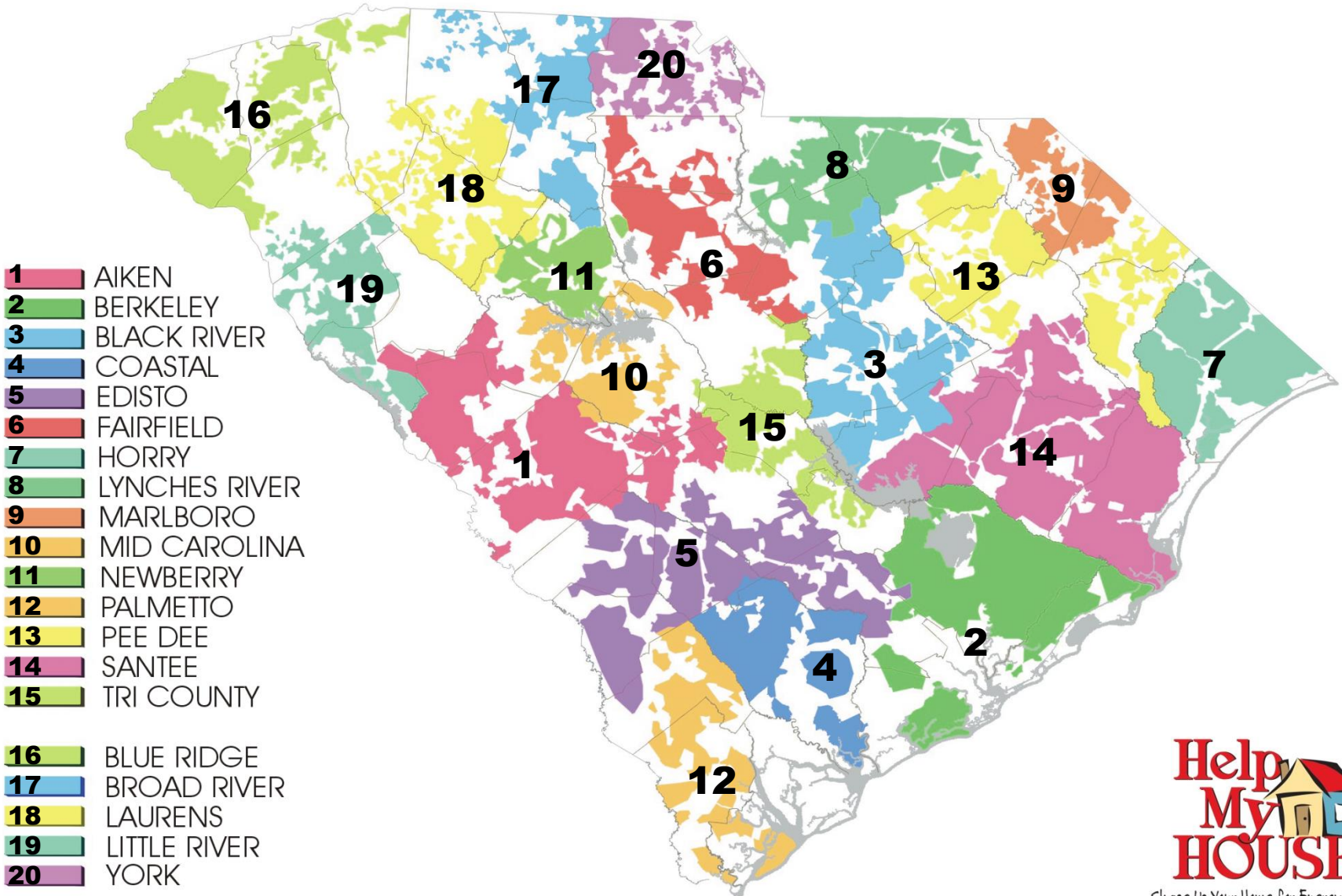
Lindsey Smith

The Electric Cooperatives of South Carolina

IN THIS PRESENTATION

- S.C. co-ops and our members
- How **Help My House** works
- Results/Feedback/Lessons Learned
- What now?

SOUTH CAROLINA ELECTRIC COOPERATIVES

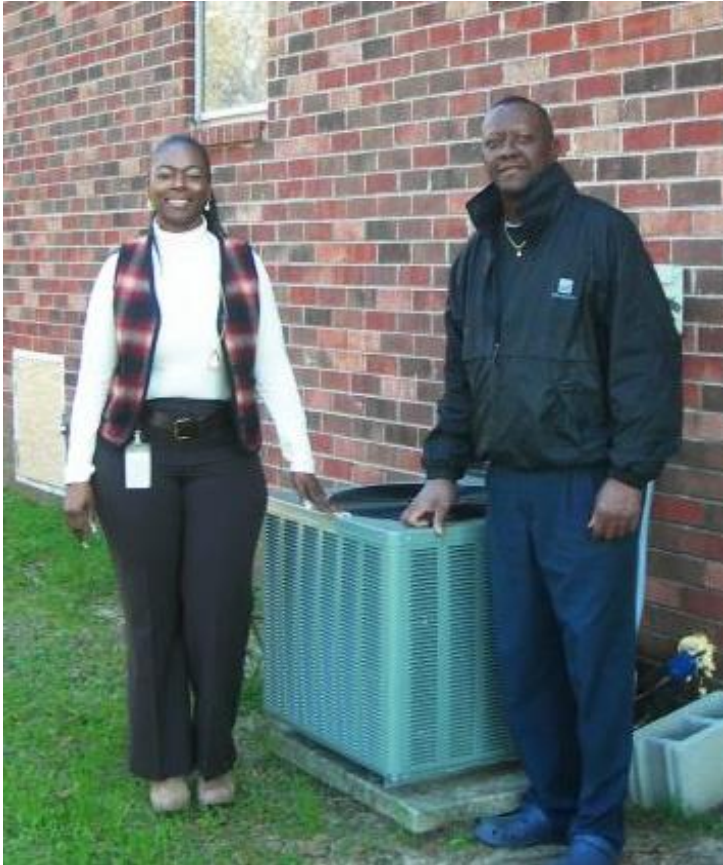


OUR OBF PROGRAM BASICS

- Low-interest loans tied to the meter; Transfer if sold
- No upfront costs
- On-bill financing
- Disconnect for non-payment
- No credit checks
- Immediate energy savings
- Improved comfort
- Quality assurance



FAST PAYBACK IMPROVEMENTS



- Seal and insulate home, ductwork
- Install vapor barrier
- Replace electric furnace
- Repair or replace old heat pump

THE PROGRAM: STEP BY STEP

1.	Participant Selection
2.	Pre-screening
3.	Comprehensive Energy Audit (BPI)
4.	Loan Approval & Contractor Selection
5.	Improvements Made
6.	Final Inspection and Approval

HOMEOWNER SURVEY

(one year later)

SATISFACTION WITH CO-OP

96% same or higher

ARE YOU MORE COMFORTABLE?

A lot more 76%

Somewhat 13%

About the same 11%

SATISFIED WITH POST-REPAIR ELECTRIC BILLS?

Very satisfied 69%

Somewhat 20%

Neutral 0%

Somewhat not 7%

Very unsatisfied 4%

INITIAL RESULTS

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

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

THE AVERAGE HOME...

- used 34% less electricity
- saved the owner \$288/yr. *after* loan payments
- was more comfortable
- had an extremely satisfied homeowner

TERI AND JOHN NORSWORTHY'S HOME

Summerton, S.C.

Santee Electric

Site built home, 1979

Size: 2013 sq. ft.

3 bedrooms

Energy efficiency measures:

New heat pump,
duct sealing, air sealing,
attic insulation

Loan amount: \$6,540

Monthly
bills
\$150
to
\$200
lower!



The Business Case for OBF

- EE incentives in Clean Air Act final rule
- Energy efficiency is cheaper than building new power plants (likely less than 2 cents/kWh)
- Community economic benefits:
 - Good for contractors
 - Good for local businesses
 - Good for supply chain

A MILESTONE LAST WEEK



	Homes/Loans Completed
<i>2011 Pilot Program</i>	125
Aiken Electric	192
Black River Electric	46
Santee Electric	127
York Electric	10
Running Total	500

WHAT NOW?

- Pilot partnership with faith-based home repair organization
- Ongoing M&V
- Selling carbon offsets
- Discussing EE and OBF initiatives with other S.C. stakeholders
- Growing HMM, one co-op at a time



For more
information:

www.eesi.org/OBF

John-Michael Cross
202-662-1883

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



Energy Efficiency Retrofits and On-bill Financing for Existing Homes: A Replicable Model

October 8, 2015

Lindsey Smith

The Electric Cooperatives of South Carolina

**Lessons Learned: Greg Leventis,
Lawrence Berkeley National Laboratory
(LBNL)**



BERKELEY LAB
LAWRENCE BERKELEY NATIONAL LABORATORY



Financing Energy Improvements on Utility Bills

Greg Leventis

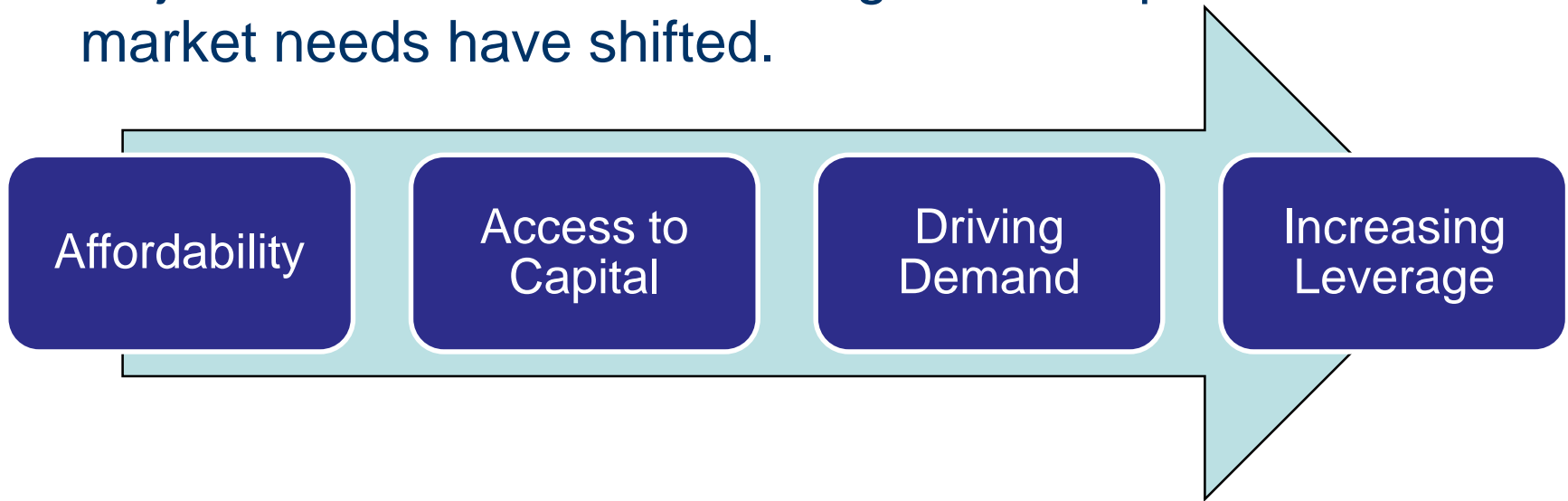
Lawrence Berkeley National Laboratory

Better Buildings Residential Network

October 8, 2015

Why Run an On-Bill Program?

Objectives have evolved through time as perceived market needs have shifted.



4 Key Program Design Considerations

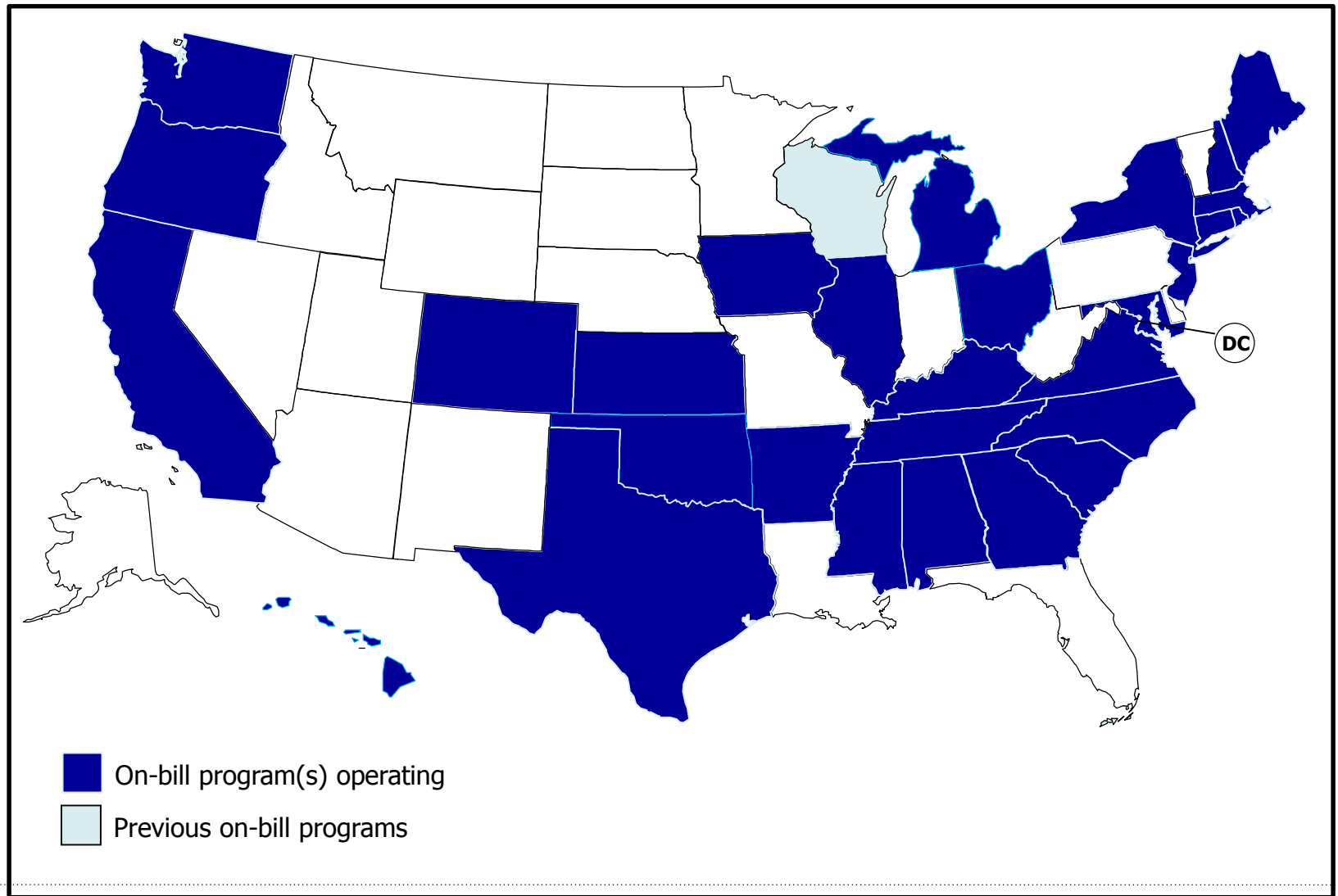
**Where Does the
\$\$ Come From?**

Who is Eligible?

**How is the
Product
Structured?**

**What Can
Participants
Finance?**

On-Bill Program Landscape Today



On-Bill Program Landscape: Performance

Sector	Median value and range of default rates	n
Res	0.08% (0 to 3%)	15
Non-Res	0.9% (0.6 to 2.9%)	7
Total	N/A	22

*Eight programs' default rates are not included either because programs have yet to launch (2), have less than one year of data (5), or failed to provide data (1).

Report

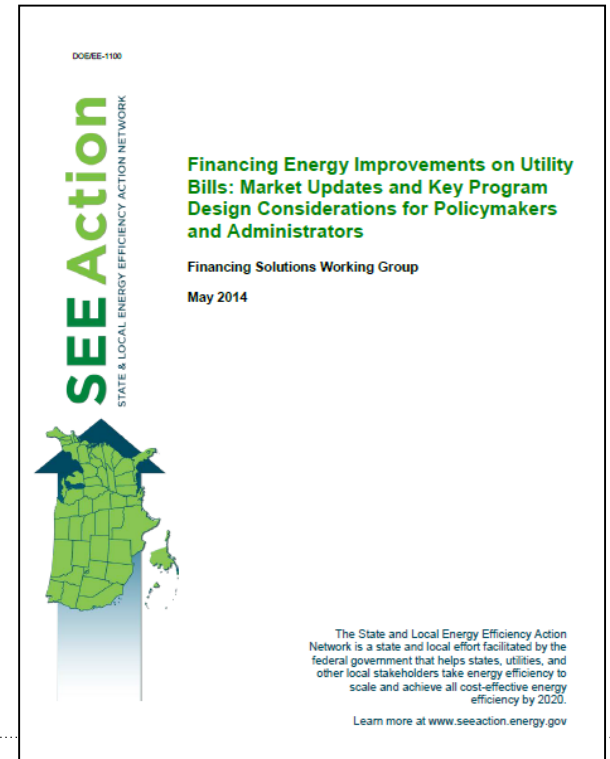
Download the Report Here (separate downloads for the 16-page Exec Summary and for the 13 Case Studies):

<https://www4.eere.energy.gov/seeaction/publication/financing-energy-improvements-utility-bills-market-updates-and-key-program-design>

DOE State and Local Solution Center:

<http://energy.gov/eere/wipo/financing-solutions>

For **SEE Action** alerts and other guidance documents visit: www.seeaction.energy.gov



NEW REPORT

Look for our upcoming report:

“Energy Efficiency Financing: A Snapshot for Policy Makers”

- The state of energy efficiency financing in 2015: available products, trends, and analysis.
- Guidance on available efficiency financing solutions and the benefits and challenges of each.
- How financing can support energy efficiency policy goals.

Thank you

LBL Efficiency Financing website:

<http://emp.lbl.gov/projects/financing-energy-efficien>



Greg Leventis

Discussion Questions

- Are there other examples of on-bill financing programs? What lessons have programs learned?
- What are the challenges of implementing an on-bill financing program? What strategies can help mitigate those challenges?
- What kind of consumer demand have programs observed for on-bill financing?
- How has performance of on-bill financing compared with other financing programs?
- Are there other questions, best practices, or lessons learned that you would like to share?

Discussion: Benefits of On-Bill Financing

- Financing is more affordable and easier to access
 - Homeowners can overcome common obstacles, including inertia due to inconvenience as well as lack of upfront capital
 - Relaxed underwriting, many programs do not require a credit check
 - Leverages limited program money and drives demand for energy efficiency improvements
- Customers can easily pay back the loan while enjoying immediate home improvements
 - Improvements targeted for on-bill have a quick payback
 - Low-interest (typically 4% or less); customers repay loans within the current cost of their utility bill
- The loan can easily transfer if the home sells or the tenant changes

Discussion: Tips for Program Design

- Target homes where cost savings from retrofits are repayable through the utility bill; improve conversion rates through rigorous prescreening, historical utility data, and use of modeling software
- Educate contractors on how on-bill financing works and set quality assurance standards to ensure improvements will lead to savings for customers
- Encourage utilities/energy co-ops to examine energy use data before and after upgrades
- Use bill payment history rather than credit scores to approve loans to increase access to financing
- Consider permitting disconnection if loan payments are not made on time

Discussion: Demand and Trends

- On-bill financing has been successful in Canada, but has faltered in the UK
- Some customers want non-energy efficiency measures (e.g., sanitation and other repair improvements) in addition to home performance upgrades; connecting EE with other home improvements can help drive demand
- Word of mouth and informed contractor networks can enhance marketing
- Program design that minimizes administrative hurdles often helps drive demand
- Comparing demand for on-bill financing and other kinds of financing is difficult
- Hurdles for contractors can make it a balancing act to keep them in the program, so it is important to understand the contractor base

Closing Poll

- After today's call, what will you do?
 - **Consider implementing one or more of the ideas discussed – 80%**
 - Other (please explain) – 13%
 - Seek out additional information on one or more of the ideas – 7%
 - Make no changes to your current approach – 0%

Peer Exchange Call Series

Beginning in October, we are holding one Peer Exchange call every Thursday from 1:00-2:30 pm ET.

This is a change from the previous call schedule.

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:

- **October 29:** Ghosts in the Attic – Horror Stories from the Field (What to Do When Things Go Wrong) (201)
- **November 5:** Baby It's Cold Outside – Best Practices for Chilly Times (101)
- **November 12:** Driving Accountability for Program Performance Using Measured Energy Savings (201)
- **November 19:** The Energy-Water Nexus and What It Can Do for Your Residential Program (301)

Send call topic ideas to peerexchange@rossstrategic.com