



Better Buildings Residential Network Peer Exchange Call Series: *The Other 15%: Expanding Energy Efficiency to Rural Populations*

September 10, 2015

Call Slides and Discussion Summary

Agenda

- Call Logistics and Opening Poll
- Residential Network and Peer Exchange Call Overview
- Featured Speakers
 - Alan Shedd, Energy Solutions Director, Touchstone Energy Cooperatives, National Rural Electric Cooperative Association (NRECA)
 - Elizabeth Ogg, Economic Developer, Bates County, Missouri GUEP Program (***Residential Network Member***)
 - Christine Grant, Senior Associate, Collaborative Efficiency
- Discussion
 - Are there other examples of successful residential energy efficiency program implementation in rural populations?
 - What energy efficiency strategies most appeal to rural populations and are these different than with more urban populations?
 - What mechanisms are best used for expanding program implementation into rural areas?
 - What are the challenges to marketing to these populations? What are innovative ways to overcome these challenges?
 - Are there other questions, best practices, or lessons learned related to expanding energy efficiency to rural populations you would like to share?
- Closing Poll

Opening Poll #1

- Which of the following best describes your organization's experience with the call topic?
 - Some experience/familiarity – **47%**
 - Limited experience/familiarity – **35%**
 - Very experienced/familiar – **18%**
 - No experience/familiarity – **0%**
 - Not applicable – **0 %**

Call Participants

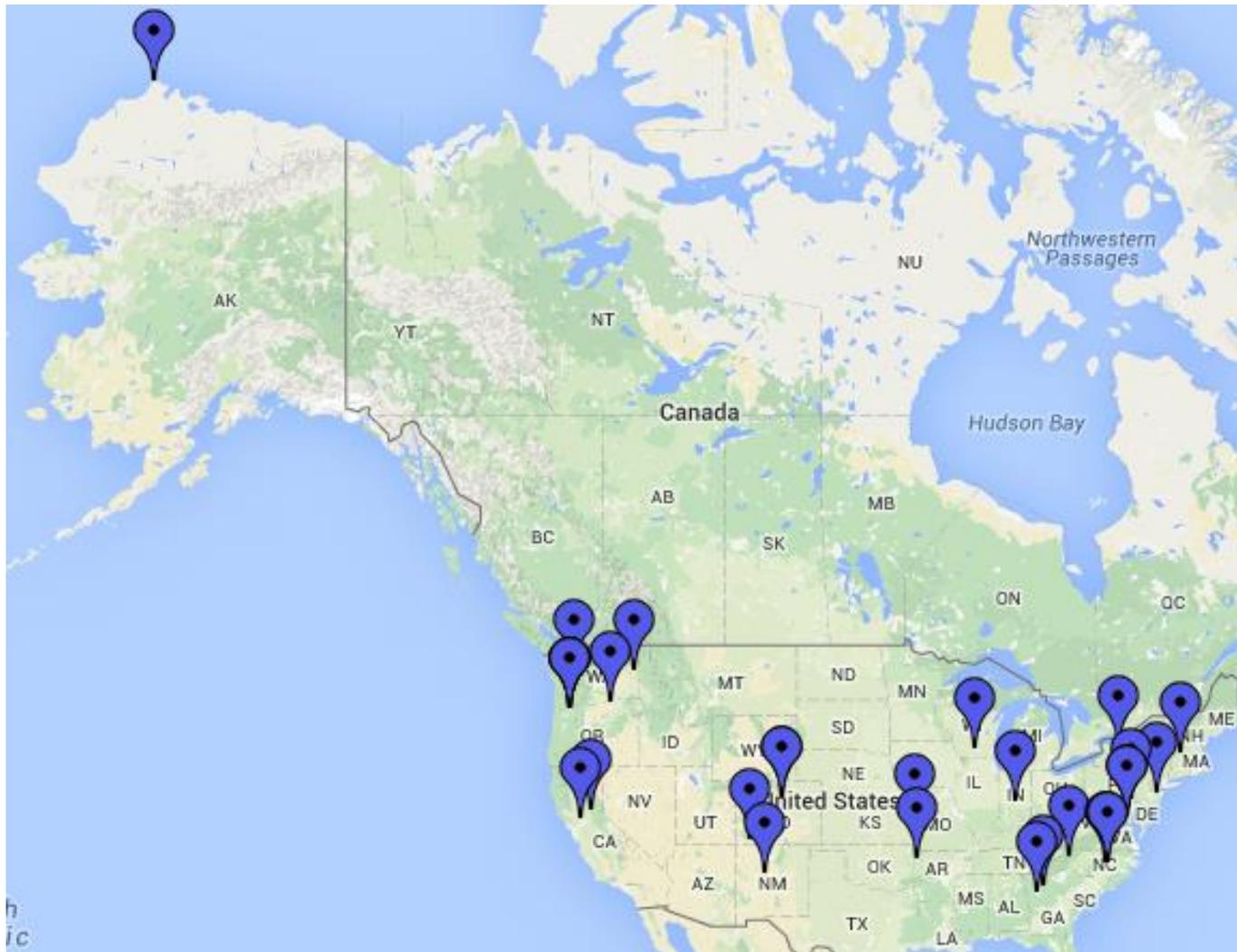
Residential Network Members

- Bates County (MO)
- Boulder County (CO)
- Clean Energy Works
- Energy Efficiency Specialists, LLC
- Honeywell
- International Center for Appropriate and Sustainable Technology (ICAST)
- North Carolina Sustainable Energy Association
- ResiSpeak
- Southeast Energy Efficiency Alliance (SEEA)
- Windham & Windsor Housing Trust
- Wisconsin Energy Conservation Corporation (WECC)
- Yolo County Housing

Call Participants – Non-members

- Appalachian Voices
- Bonneville Power Administration (BPA)
- CLEAResult
- CMC Energy Services
- Collaborative Efficiency
- Debra Little Sustainable Design
- Energy Systems Group
- La Plata Electric Association
- North Slope Borough, Alaska
- Touchstone Energy Cooperatives / National Rural Electric Cooperative Association (NRECA)
- U.S. Department of Housing and Urban Development (HUD)
- Umatilla Electric Cooperative

Call Participant Locations



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

Better Buildings Residential Network Group on Home Energy Pros Website



Better Buildings Residential Network

Created by Better Buildings Support

[Send Message](#) [View Groups](#)

Information

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

Website: <http://betterbuildings.energy.gov/bbrn>

Latest Activity: 8 hours ago

Join the conversation in the discussion forum below. You can use the "Follow" link at the bottom of the forum to receive an email whenever a new discussion is posted.

Open the table of contents below and follow the links to access topical materials and resources.

Helpful Links

- Table of Contents
- Better Buildings Residential Network
- Better Buildings Neighborhood Program Website
- Home Performance with ENERGY STAR
- Home Energy Score

[Table of Contents](#)

[+New Discussion](#)

[Peer Exchange Call Archive](#)

[Better Buildings Network View](#)

[Tools](#)

[Related Events](#)

Discussion Forum



Attend Today's Peer Exchange Calls on Program Sustainability and on Workforce

Don't miss today's calls. "Collaborating with Utilities on Residential Energy Efficiency" begins at 12:30 p.m. Eastern and "Engaging Efficiency First Chapters and Other Trade Associations in Energy Efficiency Programs" begins at 3:00 p.m. Eastern.

Continue

Tags: Peer Exchange Calls

Started by Better Buildings Support 8 hours ago.



Register for Upcoming DOE Webinar About On-Bill Financing

Sign up to attend the DOE State and Local Energy Efficiency Action Network (SEE Action) webinar, "Case Studies: Financing Energy Improvements on Utility Bills," taking place June 11, 2014, from 2:00 to 3:30 p.m. Eastern. To learn more on this topic, read

Members

[Send Message to Group](#)

[Leave Group](#)

[Follow New Members](#)

[+ Invite More](#) [View All](#)

Pages (15)

- Tools
- Better Buildings Network View
- Peer Exchange Call Schedule and Archive
- Peer Exchange Archive: Marketing and Outreach
- Peer Exchange Archive: [Workforce Business Partners](#)

Sign Out

- [Inbox](#)
- [Alerts](#)
- [Friends - invite](#)
- [Settings](#)

Home Energy Pros

Home Energy Pros was founded by the developers of Home Energy Saver Pro (sponsored by the U.S. Department of Energy.) and brought to you in partnership with Home Energy magazine.

Latest Activity

What brings you here?

[Share](#) 140

Tucker Henne commented on David Byrnes's blog post Does Aereoseal work? An auditors review

"I would like to begin with a disclaimer that I am an Aereoseal contractor. One of the reasons I..."

16 minutes ago

T.J Alexander posted a blog post

So many homes have fiberglass insulation that is poorly installed in New Hampshire and elsewhere

Doing testing of existing homes it is typical to see mottled patterns of surface temperatures with...

See More

1 hour ago

CleanEdison updated an event

Entry Level Solar Photovoltaic at Cotuit, MA

September 30, 2012 to

Peer Exchange Call Series

Beginning in October, we will hold one Peer Exchange call every Thursday at 1:00pm ET.

This is a change from the current 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:
 - **Sept 24, 12:30 ET:** Audience Segmentation and Analysis Strategies for Targeted Marketing
 - **Sept 24, 3:00 ET:** Incorporating Energy Efficiency into Multi-family, Affordable Housing Rehabilitation Projects
 - **Oct 8, 1:00 ET:** On-Bill Financing: Reducing Cost Barriers to Energy Efficiency Improvements
 - **Oct 15, 1:00 ET:** You Are My Sunshine: Integrating Residential Solar and Energy Efficiency
 - **Oct 22, 1:00 ET:** Programs and Contractors – Top Tips for Successful Relationships!
- Send call topic ideas to peerexchange@rossstrategic.com

Peer Exchange Call Summaries

Discussion: Challenges and Solutions

- Overcoming Challenges - Solutions:
 - Access trusted, local messengers
 - Engage your satisfied customers as champions to turn them into "lifetime customers"
 - Invite people to make a pledge with a few simple EE activities they can take
 - Connect with the right local partners (Connecticut conducted "community asset mapping")
 - Directly involve the homeowner through DIY work or as energy efficiency demonstration homes to help them feel engaged (San Diego demonstration homes)
 - Minimize paperwork to make it easier to participate

Poll Results

Participant Poll: Which of the following best describes your program's experience with energy efficiency behavior change efforts?

- Currently implementing: 31%
- Planning to implement: 31%
- Thinking about it: 19%
- Haven't thought about it: 0%
- Not applicable: 19%

The screenshot shows the Home Energy Pros website interface. At the top, the logo reads "HOME ENERGY PROS" with the tagline "Connecting home energy professionals". Below the logo is a navigation menu with items: Home, Invite, My Page, Members, Forum, Blogs, Groups, Photos, Videos, Events. The main content area is titled "Peer Exchange Archive: Program Sustainability" and lists several call summaries with their dates and PDF links. The summaries include:

- Incorporating Behavior Change Efforts into Energy Efficiency Programs** (July 10, 2014)
- Collaborating with Utilities on Residential Energy Efficiency** (June 12, 2014)
- BBRN Voluntary Initiative: Partnering to Enhance Program Capacity** (May 8, 2014)
- Complementary Energy and Health Strategies** (April 10, 2014)
- Mastermind: Jim Mikel, Spirit Foundation** (March 13, 2014)

How do you eat an elephant? One bite at a time. A slight shift in perspective goes a long way.

Understanding how EE can solve a financial, public relation, or customer service problem for the utility is the right place to start.

Residential Program Solution Center – We Want Your Input!

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 [Quality Assurance](#)
 - Tips
- Continually add content to support residential EE upgrade programs—**member ideas wanted!**



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

**Program Experience: Touchstone Energy
Cooperatives / National Rural Electric
Cooperative Association**



Touchstone Energy[®]
Cooperatives

EXPANDING ENERGY EFFICIENCY
TO RURAL POPULATIONS



Touchstone Energy[®]
Cooperatives

WHO WE ARE

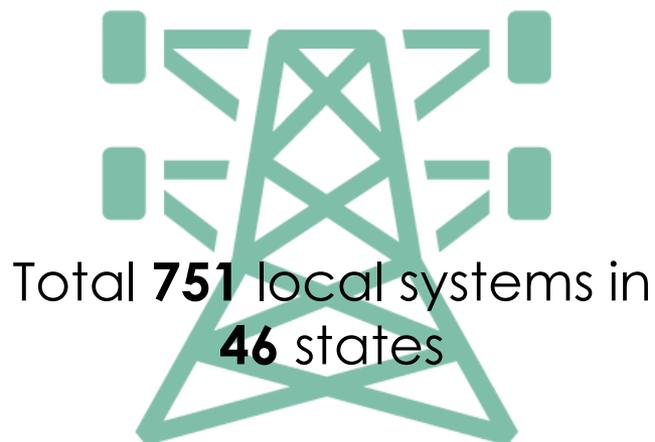
Are located in **80%** of the nations counties

Are the **largest** electric utility network in the nation



Touchstone Energy[®]
Cooperatives

WHO WE ARE



Have **32** million
member-owners

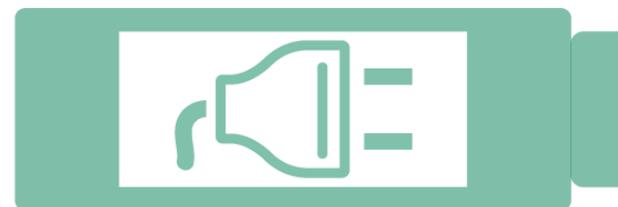


Touchstone Energy[®]
Cooperatives

WHO WE ARE



Own **\$113** billion in generation,
transmission and distribution assets



Distribute power over
2 million miles of line



Touchstone Energy®
Cooperatives

COOPERATIVES AND ENERGY EFFICIENCY

Long history

It's what we do...

Challenges



Touchstone Energy[®]
Cooperatives

TOUCHSTONE ENERGY PROGRAMS

Together We Save.com

- Home Tour
- Home Efficiency Analysis Tool

Awareness

- Ad campaigns
- Multi-media

Training

Touchstone Energy[®] Cooperatives of Georgia

TOGETHERWESAVE \$55,811,757

Home | Add Up Your Savings | Share Your Story | Energy Saving Forum | Watch & Learn | Energy Saving Applications | Links & Resources | Contact Us

What can you do?

Install CFLs	\$0
Upgrade your refrigerator	\$0
Upgrade your HVAC	\$0
Upgrade your dishwasher	\$0
Seal your air ducts	\$0
Upgrade washing machine	\$0
Change your air filter	\$0
Seal the cracks	\$0
Adjust the blinds	\$0
Add insulation	\$0
Adjust your thermostat	\$0
Pull the plug	\$0
Adjust your water heater	\$0
Turn off the lights	\$0

TOTAL SAVED: \$0
Calculation Assumptions

Assumptions | Privacy Information | Legal Information | Copyright © 2010-2013 Touchstone Energy Cooperative, Inc. All rights reserved.

TOUCHSTONE ENERGY PROGRAMS

Touchstone Energy Home Program

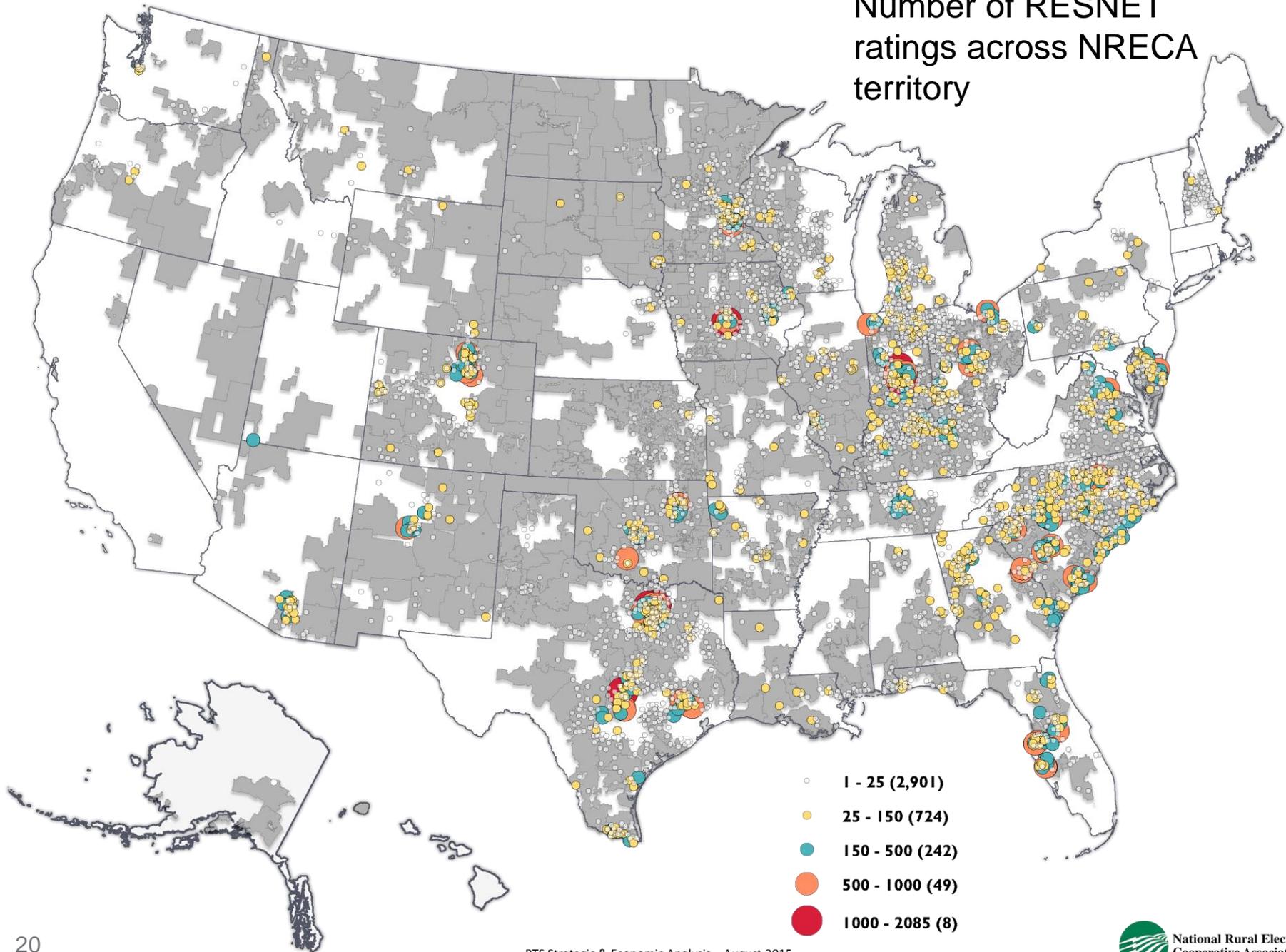
- Prescriptive and performance-based
- Very successful in limited area
- RESNET Partnership

In the works

- Program for Existing Homes
- Manufactured Housing



Number of RESNET ratings across NRECA territory





Touchstone Energy[®]
Cooperatives

CHALLENGES

Large, diverse area

One size doesn't fit all

Missing pieces

- Contractors
- Training
- Code enforcement
- Consumer awareness
- \$

Program Experience: Touchstone Energy Cooperatives

- Electric cooperatives have a long history of supporting energy efficiency programs. Cooperatives are member-owned, so it is especially important to save members' money and provide value-add programs in order to cultivate a culture of member satisfaction and loyalty.
- Touchstone Energy Cooperatives has energy efficiency programs that its member cooperatives can adopt to their own needs. Its current residential programs focus on raising customer awareness and new home energy efficiency.
- Touchstone Energy is developing programs to address existing site-built home improvements and manufactured homes.
 - A more tailored, rather than prescriptive, approach is best for existing homes, but is more complicated to develop.
 - ~30% of its membership lives in manufactured homes; many are tenant-occupied, which makes upgrades even more challenging.

**Program Experience:
Bates County, Missouri (*Member*)**

Elizabeth Ogg

Bates County Economic Developer

Bates County, Missouri

Project Leader in GUEP

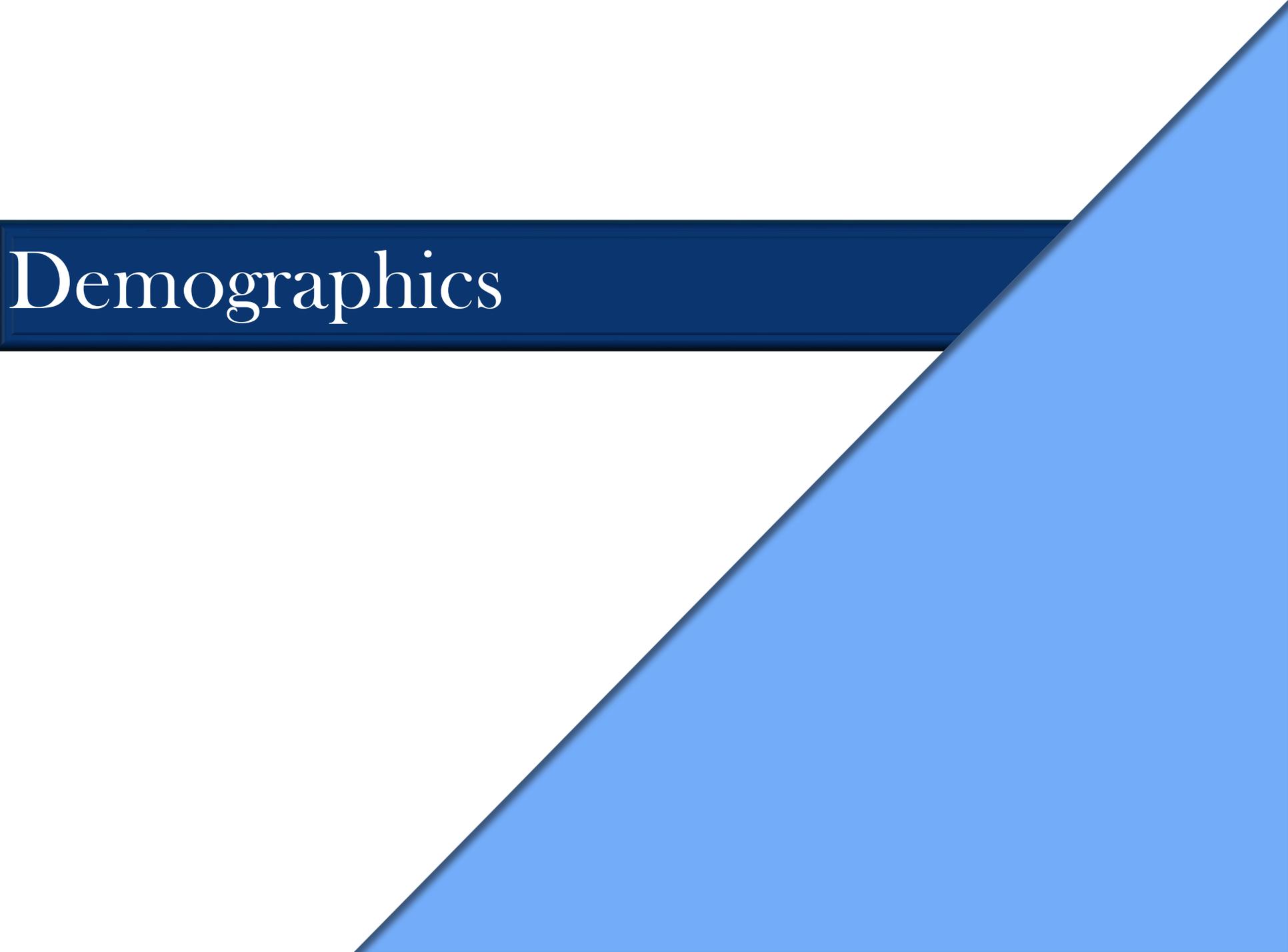


Demographics

City Efforts

County Efforts

Demographics





POPULATION

Bates County 17,049

Adrian 1,677

Butler 4,219

Rich Hill 1,396

Demographics



City Efforts

ADRIAN

- Remodeled Adrian City Hall
- Radio read water meters throughout city

BUTLER

- 12.5 acre solar farm

RICH HILL

- LED Streetlights

City Efforts



County Efforts

- Think countywide or regionally to make a bigger impact
- Partnerships – get all utilities sitting at one table
- Education is key!

County Efforts

Elizabeth Ogg

Bates County Economic Developer

Bates County, Missouri

Program Experience: Bates County, Missouri

- Bates County realized that its multiple city governments and utilities were all doing complementary but uncoordinated energy activities.
 - Last year, all parties sat down together to coordinate residential energy efficiency actions in the community.
 - Now, the group meets monthly to discuss and plan programs and outreach, such as joint education opportunities held at schools, community events and City Council meetings.
- In September 2015, Bates County became a Missouri PACE (Property Assessed Clean Energy) community and can offer PACE financing to its businesses and residents.
- The residential PACE program is run through contractors and paid through property taxes.

Project Experience: Collaborative Efficiency

Energy Efficient New Manufactured Home Programs: An Important Issue for Rural Co-ops and Utilities

September 10, 2015



Working together towards energy efficiency

Why Manufactured Homes?

- 1 out of every 16 Americans lives in a MH
- Roughly 92 percent of MHs are located in rural or suburban areas
- Electric co-ops serve 14 million of the 20 million MHs in the US

Energy Needs of MHs

MHs consume 35% less energy than site built homes due to their smaller size, yet residents of MHs **spend 70% more per sq. ft. on energy.**

53% use electricity as their main heat source
+
Resistance electric furnaces are the most common space heating system
=
Significant contributions to peak demand

Why are MHs EE Laggards?

- Manufactured homes are not subject to state building codes.
- HUD Code—even with 1994 update—is severely outdated.

Changing Standards

- Good news:
 - A new standard has been drafted that could reduce energy use by 25% - if adopted and enforced.
- Bad news:
 - Still undergoing a long federal review process
 - 5 - 7 years before standard takes effect
 - [150K – 300K MHs sold per year](#)

ENERGY STAR Manufactured Homes

- Certified ENERGY STAR MHs use about **30 percent less energy than** MHs built to the 1994 HUD Code standards.
- The cost differential between a HUD Code and ENERGY STAR manufactured home (including a heat pump) ranges from \$1,000 to \$4,000.

Why Promote ENERGY STAR MHs?

— HUD Codes MHs:

- Contribute to peak demand
- Create a disproportionate number of bill complaints
- Will be on the grid for 50 years

— ENERGY STAR MHs:

- May help meet new EE targets/smooth peak
- Traditionally help serve lowest income customers
- Help reduce high bill complaints/can increase customer sat.

Current Programs Promoting ENERGY STAR Manufactured Homes



HOOSIERENERGY

A Touchstone Energy® Cooperative 



**EAST KENTUCKY
POWER COOPERATIVE**

A Touchstone Energy® Cooperative 



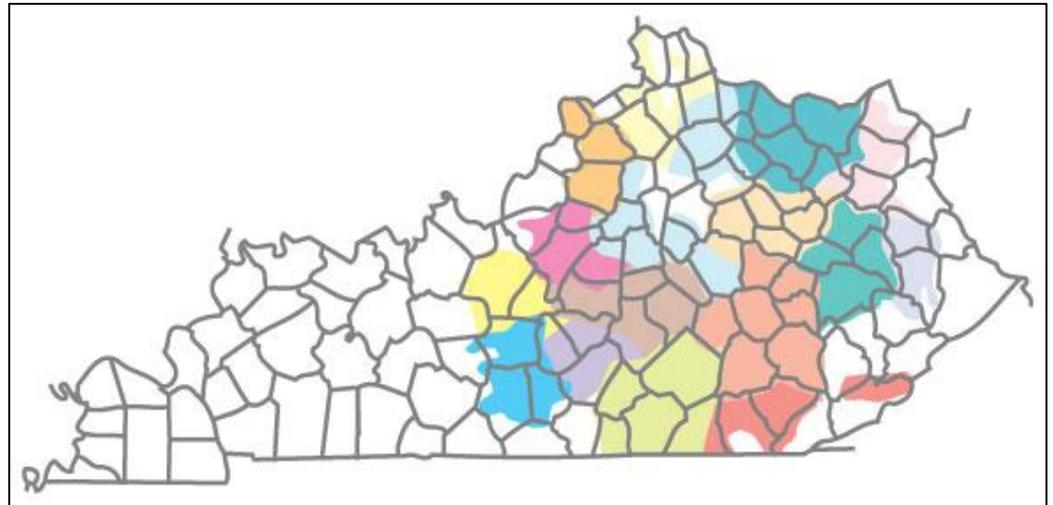
Working together towards energy efficiency

Best Practices

1. Collaborate to attract manufacturers

“With 16 distribution co-ops we had more bargaining power and were able to get the interest of the factories.”

- Josh Littrell, EKPC
Program Manager

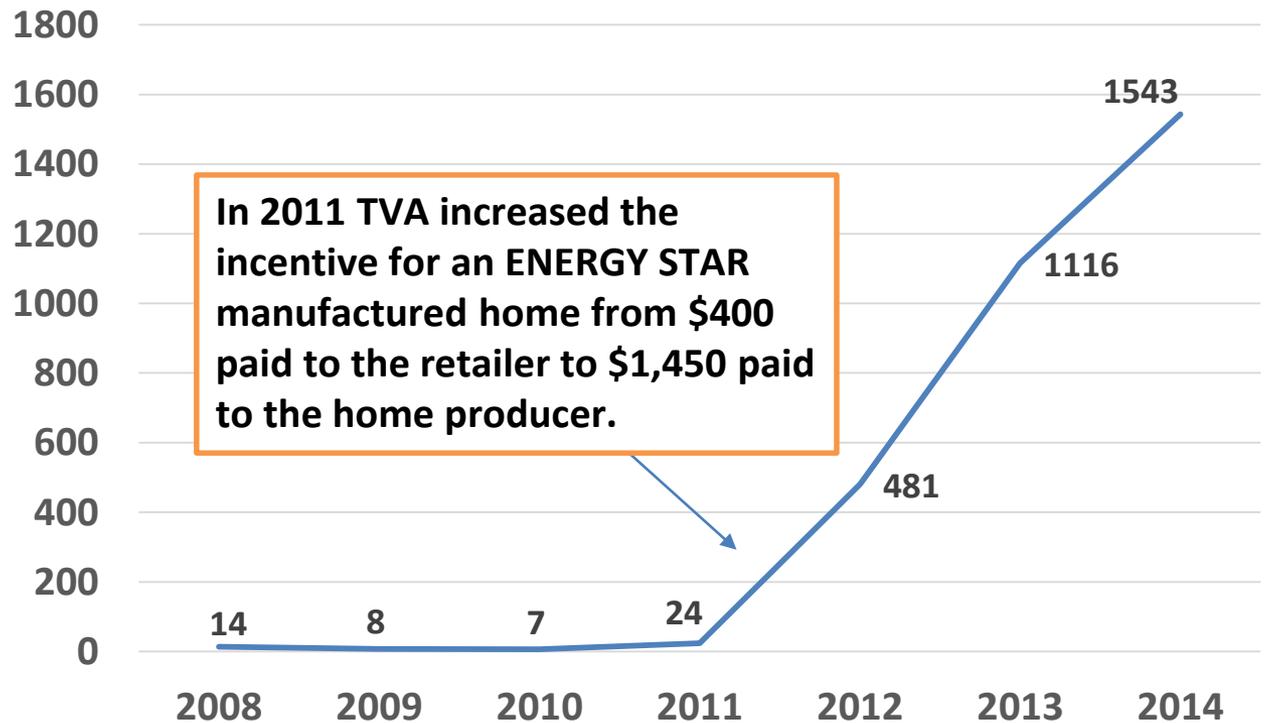


Best Practices

2. Right size rebates: “Make it a no-brainer at first”

“Our hope was that if we paid a higher incentive and then slowly reduced it that it would slowly transform the market.”

- Lisa Haislip, TVA’s Program Manager



Working together towards energy efficiency

Lisa Haislip, 2015

Best Practices

3. Leverage experience of non-profit partners

Non-profits like [SBRA](#) offer a one-stop shop for the affordable administration of new manufactured home programs and can leverage their experience and connections with manufactures.



Other Strategies

- Educating retailers
- On-bill financing programs to help cover the cost differential
- Others?

“Many customers come into a showroom and energy efficiency hasn’t even crossed their mind; retailers can really help sell the benefits of upgrading to ENERGY STAR.”

- Brady Peeks, NEEM Program Manager

Thanks!

Christine Grant, Senior Associate

www.collaborativeefficiency.com



Project Experience: Collaborative Efficiency

- Only 10% of manufactured homes sold nationally are ENERGY STAR; however, in areas where programs are promoting ENERGY STAR manufactured homes, there is a 60% market penetration rate.
- Most of the manufactured homes incentive programs focus on new homes. Upgrading older manufactured homes is more challenging, as the customer may not be aware of the energy use problems their current home has or may not have the funds available for energy efficiency measures.
 - Some nonprofits, such as [Next Step](#), support trade-in programs to upgrade manufactured homes to more efficient ones.
 - WECC is currently implementing two programs in the upper Midwest to upgrade systems in manufactured homes. In one program, they are assessing the energy savings that just ductwork improvement can provide. The company will have results about these programs within the next year.
- Other organizations addressing these issues are the [National Manufactured Home Owners Association](#) and [Natural Resource Defense Council](#).

Additional Resources

- [USDA grant opportunity](#) through their Rural Energy for America Program (REAP)
 - \$63 million to support 264 projects nationwide.
 - Eligible agricultural producers and rural small businesses may use REAP funds to make energy efficiency improvements or install renewable energy systems.
 - Next application deadline is November 2, 2015.
- USDA Energy Efficiency and Conservation Loan Program Webinar Series
 - [6 webinars](#) housed on the Better Buildings Residential Program Solution Center.

Discussion Questions

- Are there other examples of successful residential energy efficiency program implementation in rural populations?
- What energy efficiency strategies most appeal to rural populations and are these different than with more urban populations?
- What mechanisms are best used for expanding program implementation into rural areas?
- What are the challenges to marketing to these populations? What are innovative ways to overcome these challenges?
- Are there other questions, best practices, or lessons learned related to expanding energy efficiency to rural populations you would like to share?

Discussion Highlights: Challenges

- Rural areas present a huge potential opportunity. However, to implement energy efficiency programs in these areas, programs will need to help develop the customer demand, the contractor network, and the right incentives, which can be a big lift.
- A sufficiently large market is needed to ensure enough demand to make program implementation efficient and successful.
- Reaching homes in rural areas with even a simple home energy rating can be challenging; consumer awareness and a lack of qualified energy assessors in certain areas of the country are components of the problem.
- Actually performing home upgrades is even more challenging; there are few contractors in many rural areas and those often do not know about local codes or have training in energy efficiency practices.

Discussion Highlights: Best Practices

- Collaboration and education are equally key when working in rural areas. Your program needs to use its resources most effectively across a sparse population to get your message and program information out.
 - Working in partnership with utilities and electric cooperatives, local governments, community groups, and others can help spread the message about your programs.
 - Working with nearby programs can provide some economies of scale for education of consumers and training of staff and contractors. If you need to work with a manufacturer or supplier, a larger joint program can attract more notice and potential volume discounts.
- The same communication channels used in more metropolitan areas are effective in rural areas as well – websites, texts, awareness ads, and social media campaigns.

Closing Poll

- After today's call, what will you do?
 - Seek out additional information on one or more of the ideas – **82%**
 - Consider implementing one or more of the ideas discussed – **27%**
 - Make no changes to your current approach – **18%**
 - Other (please explain) – **9% (*not specified*)**

Please send any follow-up questions or future call topic ideas to:
peerexchange@rossstrategic.com