



**Better Buildings Residential Network Peer Exchange  
Call: *Staged Upgrades—Homeowner-focused  
Strategies for Encouraging Energy Upgrades over  
Time***

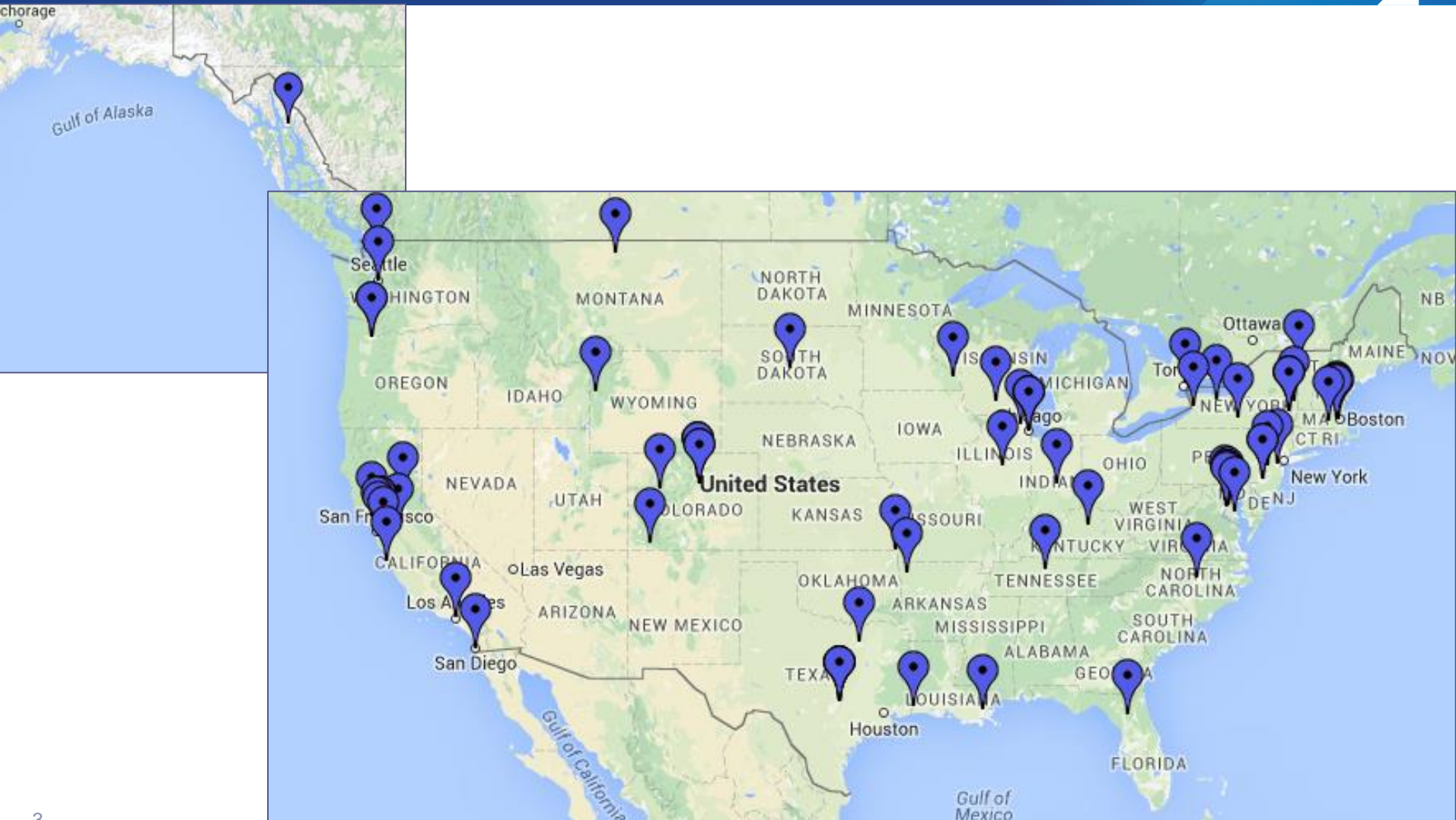
August 20, 2015

*Call Slides and Discussion Summary*

# Agenda

- Call Logistics
- Residential Network and Peer Exchange Call Overview
- Update on Staged Upgrades Initiative, Steve Dunn, U.S. DOE
- Poll on Staged Upgrade Resources
- Featured Speakers:
  - Patrick Hunt, Fiveworx
  - David Hatchimonji, Boulder County (CO) (*Network Member*)
- Discussion
  - What are effective “entry points” for starting to work with homeowners on staged energy efficiency upgrades?
  - What is the right amount of information to share with homeowners about staged upgrade opportunities? How can programs and contractors work together to get the right information to homeowners?
  - What are effective strategies for sustaining relationships with homeowners over time about needs and opportunities for additional energy efficiency measures?
- Closing Poll

# Call Participant Locations



# Call Participant Locations



# Call Participants – Residential Network Members

- Arlington County (VA)
- Boulder County (CO)
- Build It Green
- Center for Sustainable Energy
- City of Cambridge (MA)
- City of Plano (TX)
- City of Sunnyvale (CA)
- Clean Energy Works
- Elevate Energy
- Energy Conservation Works
- Energy Efficiency Specialists
- Midwest Energy Efficiency Alliance (MEEA)
- New York State Energy Research & Development Authority (NYSERDA)
- Performance Systems Development (PSD)
- Spirit Foundation
- SWEPCO
- Vermont Energy Investment Corporation (VEIC)
- WECC (Wisconsin Energy Conservation Corporation)
- Xcel Energy

# Call Participants – Non-Members


- Ballarat Consulting
- Building Envelope Materials
- Byggmeister, Inc.
- City of San Francisco
- CLEAResult
- Community Investment Corporation
- Conservation Services Group (CSG)
- Craft3
- Debra Little Sustainable Design
- Energy Systems Group
- Environmental Design / Build
- Erie County (PA)
- Fiveworx
- Holy Cross Energy
- Honeywell International
- Johnson A/C
- La Plata Electric Association
- Media Arts
- Navigant
- Opportunity Link
- Pacific Gas & Electric (PG&E)
- Passive House Institute US (PHIUS)
- Rital LLC
- Rocky Mountain Institute (RMI)
- Seattle City Light
- Select Investments LLC
- Sonoma Clean Power
- South Central Partnership for Energy Efficiency as a
- Resources (SPEER)
- South Dakota Housing Development Authority
- Stardel
- State Farm
- StopWaste
- The Opportunity Council
- The PsySiP (Psychology of Science in Policy) Project
- Tlingit-Haida Regional Housing Authority
- TRC
- U.S. Department of Housing and Urban Development
- University of Florida
- V3 Power
- WSP Canada

# Better Buildings Residential Network

- **Better Buildings Residential Network**: Connects energy efficiency programs and partners to share best practices to increase the number of American homes that are energy efficient.
  - Membership: Open to organizations committed to accelerating the pace of existing residential upgrades. Commit to providing DOE with annual number of residential upgrades, and information about benefits associated with them.
  - Benefits:
    - Peer Exchange Calls
    - Tools, templates, & resources
    - Newsletter updates on trends
    - Recognition: Media, materials
    - Optional benchmarking
    - Residential Solution Center

For more information & to join, email [bbresidentialnetwork@ee.doe.gov](mailto: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



### 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

[Send Message to Group](#)

[Leave Group](#)

### Members



[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

- Calls are currently held the 2nd and 4th Thursday of every month at 12:30 and 3:00 ET, but this will be changing beginning in October.
- 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 10, 12:30 ET:** Mastermind: *Program TBD*
  - **Sept 10, 3:00 ET:** The Other 15%: Expanding Energy Efficiency to Rural Populations
  - **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
- Send call topic ideas to [peerexchange@rossstrategic.com](mailto: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". A navigation menu includes "Home", "Invite", "My Page", "Members", "Forum", "Blogs", "Groups", "Photos", "Videos", and "Events". Below the menu, there are links to "Back to Better Buildings Residential Network" and "All Better Buildings Residential Network Pages". The main content area is titled "Peer Exchange Archive: Program Sustainability" and lists several call summaries with their dates and PDF links:

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

*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!

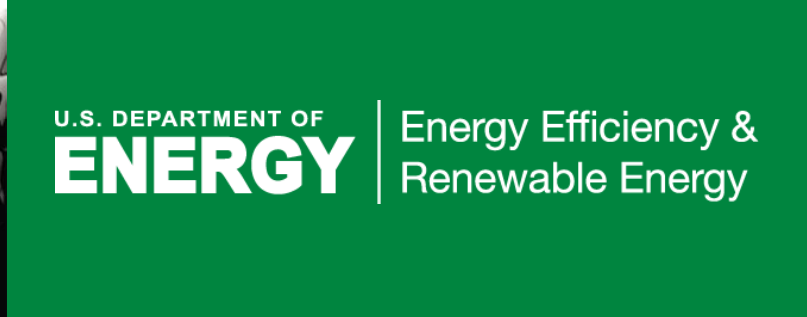
Web portal of residential EE upgrade program resources, & lessons learned to plan better, avoid reinventing the wheel.

- 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
  - Tips
- Continually add content to support residential EE upgrade programs—**member ideas wanted!**



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

**Staged Upgrade Initiative**  
**Steve Dunn, Project Manager, U.S. DOE**



**Staged Upgrades: Homeowner-focused Strategies for Encouraging Energy Upgrades over Time**

Steve Dunn  
U.S. Department of Energy

**Better Buildings  
Residential Network  
Peer Exchange**

**August 20, 2015**

# Staged Upgrades Initiative (SUI)

## A new RBI deployment initiative that will:

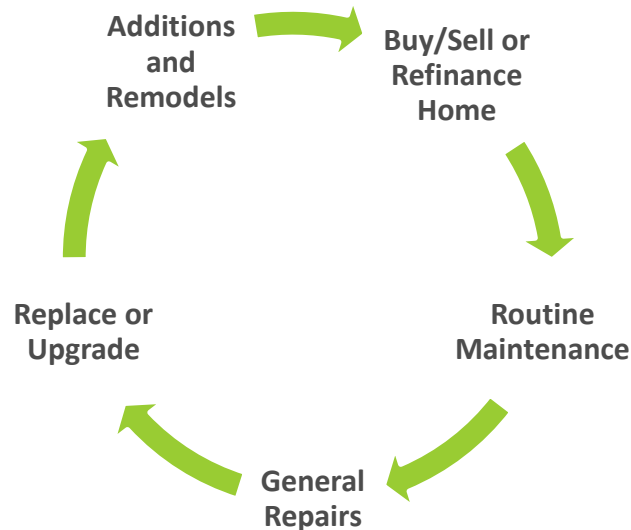
- Help DOE **accelerate residential energy savings** from one or more 'simple to implement' measures that can be deployed and scaled to a high volume of transactions
- Capture and **leverage transactions** that are normally happening in the course of homeownership and contractor trades / businesses
- Deliver **greater value** and superior **energy performance** for market actors and consumers
- Provide a **pathway to completing measures over time**, and whole home programs such as Home Performance with ENERGY STAR



# Aligning Energy Savings Opportunities with Home Improvement Transactions

Home Upgrade Opportunities (illustrative)	Buy House	Maintenance	Replace/ Upgrade	Remodel	Refinance	Potential Energy Savings
Lighting and Appliances	●	●	●	●		-4%
Seal, insulate, ventilate	●		●	●	●	-10%
Heating, Cooling Systems and Distribution (duct ins. + seal)	●	●	●	●	●	-15%
Domestic Hot Water Systems (gas tankless, HPwH)		●	●			-3% - 5%
MEL's, Controls, Connected Home		●		●		-3 - 5%
On-site Renewable Generation				●	●	Up to Net Zero

The home ownership life cycle offers multiple touch points involving purchasing decisions with opportunities to promote incremental energy savings



Cumulative energy savings potential of 30-40% over time

# Initial Focus: Leveraging the HVAC Transaction

**Opportunity:** Test concepts for mid-stream and up-stream interventions to engage HVAC contractors in conducting incremental efficiency improvements using high efficiency HVAC technologies and quality installation methods

## **Test Messaging**

- Promotion of deeper energy savings and longer term planning without disrupting the normal course of business within and across trades
- Shift in consumer thinking about home energy efficiency improvement decisions – from reactive to proactive

## **Proof of Concept**

- Identify and implement market-ready measures (single and in combination) as proof of concept for broad deployment
- Address technical field problems to promote more energy efficient equipment
- Support approaches to engage trade contractors and manufacturers in offering staged upgrades
- Emphasis on existing medium-sized contractors with an established HVAC business.

## **The HVAC Opportunity**

- Residential HVAC replacement represents a \$15 billion market\*
- Over 3 million installations annually
- Up to 15% energy savings per transaction
- Ongoing customer relationship

\* Source: Harvard Joint Center for Housing Studies, 2011



# Staged Upgrades: Resources and Guidance

- DOE resources and activities:
  - Develop and provide technical support resources to support common measure packages. Examples of potential packages include:
    - **HVAC** (e.g., high efficiency spec., quality installation, duct test and seal)
    - **Envelope** (e.g., air seal, insulate with windows / siding / roof replacement)
    - **Other mechanical systems and controls** (e.g., appliances, water heating, smart thermostats)
  - Provide guidance on sequencing and structuring home upgrades to capture additional savings and improve overall performance
    - Contractor resource and field guides
  - Offer tools and resources to help guide homeowners and trades
    - Messaging and strategies for engaging consumers
    - Home Energy Score reports
    - Consumer checklists

# For More Information

---

Questions?

**Steve Dunn, Project Manager**  
DOE Building Technologies Office

**Caroline Hazard, SRA International**

# Poll on Staged Upgrade Resources

- To support staged upgrade efforts, what would be the most useful resource for DOE to produce?
  - Reports and recommendations for homeowners – **42%**
  - Guidance about sequencing and structuring projects – **36%**
  - Guidance on packages of related measures – **15%**
  - Other (please chat in) – **8%**
  - *Other suggestion: resources and guidance for homeowners on sequencing and structuring projects*

**Lessons Learned:  
Patrick Hunt, CEO, Fiveworx**

# Highlights: Fiveworx

- Fiveworx is an energy efficiency solutions company associated with The Shelton Group.
- Key findings from the annual Energy Pulse survey about attitudes about energy-efficient products and services inform Fiveworx's approach to engaging homeowners about energy efficiency:
  - Approximately half of respondents think their home is energy efficient; only about a quarter think their home is inefficient.
  - About two-thirds of respondents do not know about utility/state/local incentive programs for energy efficiency.
  - Undertaking five or more upgrades in a home is the “magic number” for homeowners to notice a decline in their energy bills and feel more satisfaction with their electricity provider. However, most people who invest in upgrades tend to do three or fewer.

# Lessons Learned: Fiveworx

- Personalization of energy efficiency messaging is important: use the data you have to make the message matter.
- Frequency of messaging: contact a customer too often, and it will be overwhelming; too infrequent, and the customer will forget.
  - For email communication, Fiveworx has found the right frequency to be about every other week.
- Loss aversion is a strong motivator: communicate about not losing an opportunity for an incentive or not wasting energy.
- Break big actions into manageable chunks: give customers one activity or message to consider at a time.

**Program Experience:**

**Dave Hatchimonji**

***EnergySmart* Residential Service Manager**

**Boulder County Commissioners' Office**



**energySMART**  
Your Efficiency Solutions

# How EnergySmart Supports the Homeowner Throughout the Homeownership Lifecycle

*Purchase > Repair/Maintenance > Replacement > Sale*

*Dave Hatchimonji  
Residential Program Mgr.  
Boulder County (CO) EnergySmart*





**energySMART**  
Your Efficiency Solutions

*But a couple things about us:*



- ✓ Open to all homes and businesses in Boulder County
- ✓ Focused on meeting the customer “where they’re at” when it comes to making an efficiency or renewable energy upgrade
- ✓ Use of the 1-on-1 energy advisor model



**energySMART**  
Your Efficiency Solutions

# Staying Relevant

1. Keeping the EnergySmart brand visible
2. Supporting our contractor pool
3. Maintain a positive and active relationship with past customers
4. Provide fresh offerings



**energySMART**  
Your Efficiency Solutions

*Homeownership EE Lifecycle:*

**Home Purchase stage**

Maintenance and Repair stage

Replacement and Improvement stage

Home Sale stage



1. Energy efficiency included in New Homebuyers Class
2. Mailers to all new home purchases in the county
3. Free energy audit with all home loans through a local credit union



**energySMART**  
Your Efficiency Solutions

*Homeownership EE Lifecycle:*

Home Purchase stage

**Maintenance and Repair stage**

Replacement and Improvement stage

Home Sale stage

1. Identifying these homes during the intake process
2. Reliance on our contractor pool
3. Rebates for Tune-ups?





**energySMART**  
Your Efficiency Solutions

*Homeownership EE Lifecycle:*

Home Purchase stage

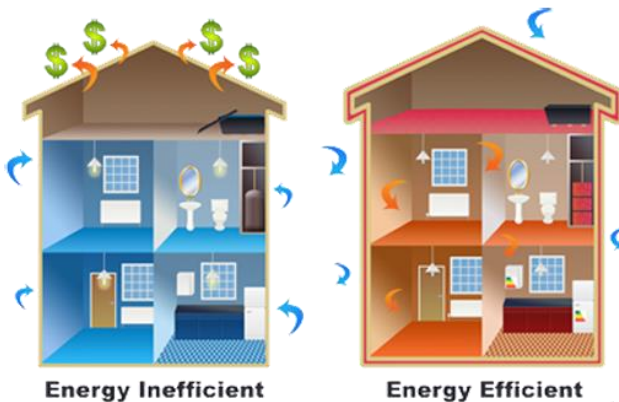
Maintenance and Repair stage

**Replacement and Improvement stage**

Home Sale stage

This is our meat and potatoes (organic and gluten free!)

- Personal advising
- Energy Audits
- Contractor bid solicitations
- Program rebates
- Energy loans
- Access to other EE/RE programs





**energySMART**  
Your Efficiency Solutions

*Homeownership EE Lifecycle:*

Home Purchase stage

Maintenance and Repair stage

Replacement and Improvement  
stage

**Home Sale stage**



*Perception: An Interruption of  
the transaction process*



**energySMART**  
Your Efficiency Solutions

*Thank you*

Dave Hatchimonji  
*EnergySmart* Residential Service Manager  
Boulder County Commissioners' Office  
[EnergySmartYES.com](http://EnergySmartYES.com)

# Highlights: Boulder County EnergySmart

- Boulder County's EnergySmart residential program targets homeowners during different points of the homeowner lifecycle.
  - *Home purchase*: Many new homeowners make major investments in their home directly after purchase.
  - *Home maintenance and repair*: Providing HVAC tune-up rebates is a good way to drive up participation in the program (Boulder County is not currently offering this as it is a lower energy savings amount per dollar spent).
  - *Home improvement/replacement*: EnergySmart used some of its Better Buildings grant to fund a loan program for financing energy efficient home improvements. Thus far, the program has lent \$4 million to 380 homes in Boulder and Denver counties.
  - *Home sale*: EnergySmart has found it challenging so far to engage participants at this stage.



# Discussion Questions

- What are effective “entry points” for starting to work with homeowners on staged energy efficiency upgrades?
- What is the right amount of information to share with homeowners about staged upgrade opportunities? How can programs and contractors work together to get the right information to homeowners?
- What are effective strategies for sustaining relationships with homeowners over time about needs and opportunities for additional energy efficiency measures?

# Discussion: How and When to Engage

- New homeownership is a good time to make a first connection with homeowners and gather data about their homes, interests, and needs.
- Home system or appliance replacement/improvement is a key point to introduce more energy efficient measures, but the stage should be set when items are being maintained or repaired.
  - Contractors who perform maintenance and repair can be advocates for programs and help homeowners think proactively about what types of systems they will install when needed.
- The energy advisor model can be an effective way to engage homeowners over time: advisors know who to turn to with specific questions throughout the homeownership lifecycle.

# Discussion: Messaging for Staged Upgrades

- Work with partners to jointly promote the program (e.g., utilities, other departments, community groups).
- Not losing energy or wasting money is an important message, but also consider messages that promote comfort, safety, and health related to energy saving measures.
- Invest in data on homeowners attitudes and interests to help understand what messages are most likely to motivate energy efficiency upgrades.
- Consider your audience and communication channels when determining how frequently to contact participants: too frequent communication can work against a program as much as too little.
- Break up the overall action you want homeowners to take into smaller steps; push and layer the information over time.

# Closing Poll

- After today's call, what will you do?
  - Seek out additional information on one or more of the ideas – **61%**
  - Consider implementing one or more of the ideas discussed – **21%**
  - Make no changes to your current approach – **18%**
  - Other (please explain) – **0%**

**Please send any follow-up questions or future call topic ideas to:**  
[peerexchange@rossstrategic.com](mailto:peerexchange@rossstrategic.com)