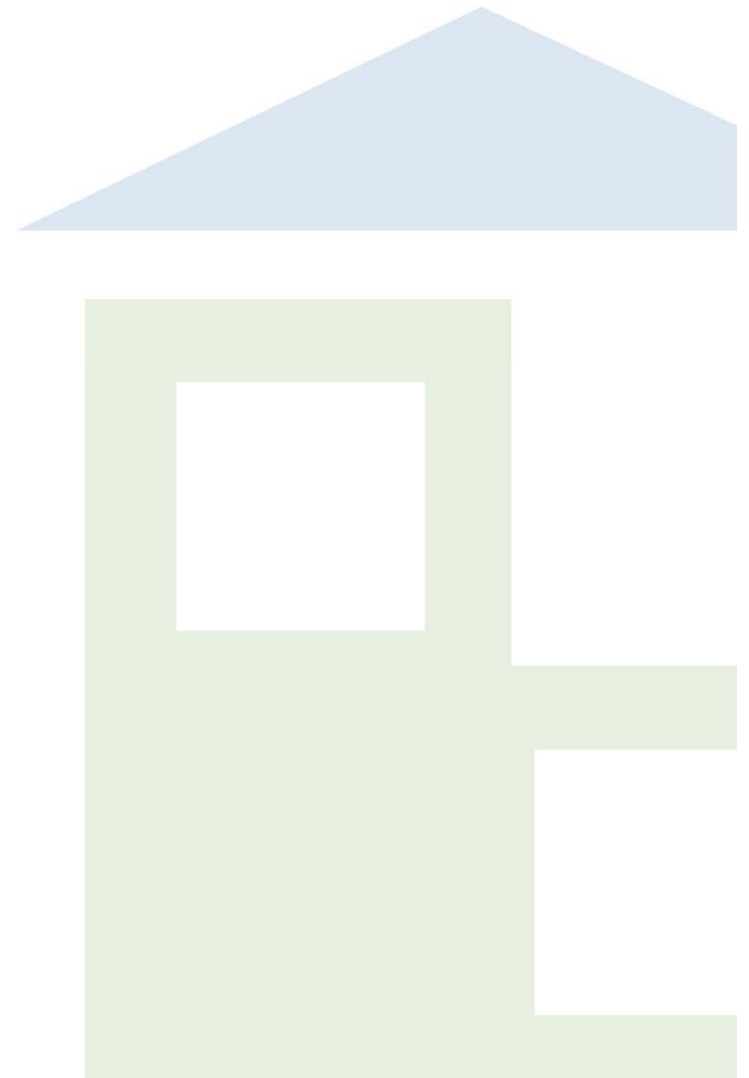




Building America  
Residential Energy Efficiency  
Stakeholder Meeting  
*BetterBuildings*

Danielle Sass Byrnett

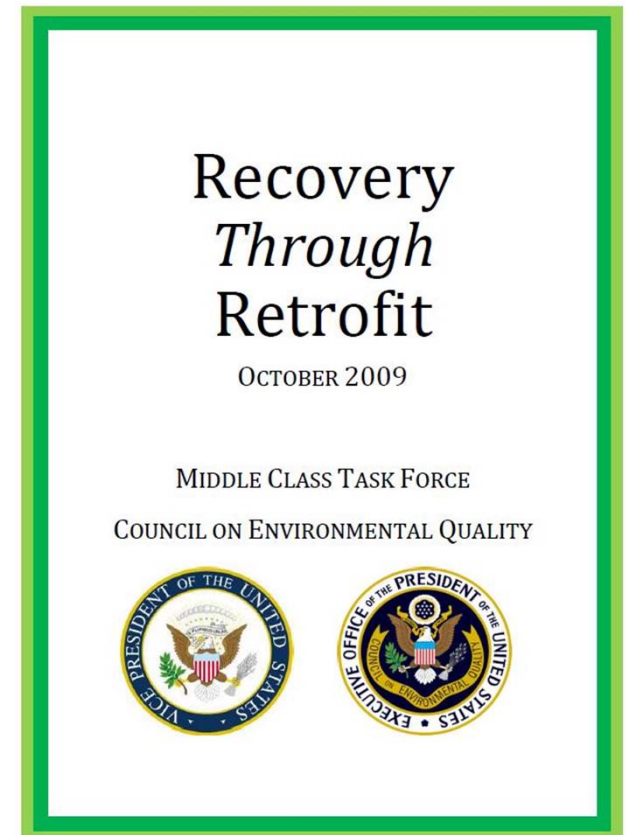
March 16, 2011



**Block by block, neighborhood by neighborhood, we will make our communities more energy efficient and help families save money. At the same time, we'll create thousands of jobs and strengthen our economy.”**  
*—Dr. Steven Chu, Secretary, U.S. Department of Energy*

# BetterBuildings Grants

- Leverage \$482.6M in American Recovery and Reinvestment Act (ARRA) funding and \$25.6M in FY10 funds to spur nationwide energy efficiency program innovation
- Target urban, suburban, and rural environments
- Capitalize on economies of scale
- Encourage industry partnerships and investment
- Emphasize sustainability beyond the grant



BetterBuildings is using federal support to promote program innovation and market investment



# What We Will Accomplish



## Vision

A self-sustaining market for building energy efficiency retrofits that results in economic, environmental, and energy benefits across the United States

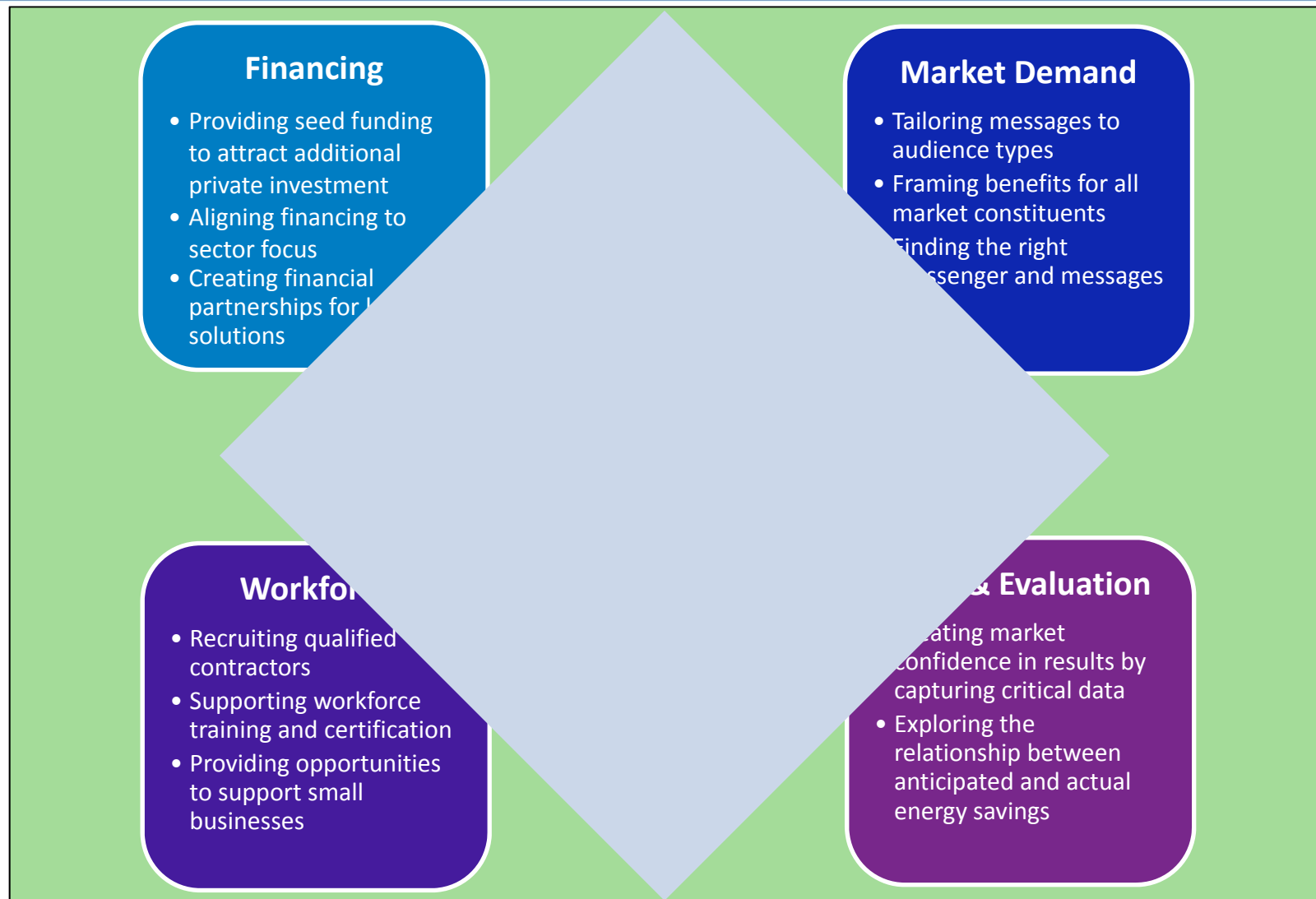
## Goals to Leverage Grants for the Market

- Develop sustainable energy efficiency improvement programs
- Reduce the cost of retrofit program delivery by 20% or more
- Achieve 15-30% energy savings from energy efficiency upgrades

## Grantee Goals by Late 2013

- Retrofit 170,000 buildings (residential and commercial)
- Use the \$508 million grants to leverage \$3 billion in additional resources
- Create or retain approximately 30,000 jobs
- Save consumers approximately \$50 million annually on energy bills

# BetterBuildings is working to address market barriers and develop replicable business models



# BetterBuildings is using pilots to gather critical information that will help answer key questions



## Financing

- Can energy savings be tied to loan performance?
- What mechanisms best support different retrofit programs and consumer types?

## Market Demand

- What tools/approaches are most effective for creating consumer demand?
- What messages are best for building demand in different market sectors?
- Who are the right messengers and what are the best avenues to deliver the message?

## Service Delivery

- What approaches are the most effective for driving down costs of delivery?
- What approaches/equipment create the greatest energy efficiency?

## Market Confidence

- What business models are most effective for reducing program administration costs?
- What approaches were most effective for generating energy savings?

## Workforce

- What impact does technical training and/or certification have on program results?
- Is business support needed to expand the pool of successful retrofit contractors?

# Tracking Successes



Program  
Development

Grantee  
Program  
Elements

Milestones &  
Events

Retrofit  
Forecast

Demonstrate  
Results

Inform  
Replicability

Data  
Collection and  
Metrics



Gathering extensive information to continually improve the program and build market confidence



## Targeted data from recipients and partners

Building Information	Retrofit Information
<ul style="list-style-type: none"><li>• Energy types used</li><li>• Energy audit data</li><li>• Energy use data (pre and post retrofit)</li></ul>	<ul style="list-style-type: none"><li>• Installed measures/equipment</li><li>• Estimated energy savings</li><li>• Contractor qualifications</li><li>• Cost</li></ul>
Financial Information	Communication Strategies
<ul style="list-style-type: none"><li>• Leveraged funds</li><li>• Loan types and value</li><li>• Underwriting criteria</li><li>• Financial performance (e.g., payment history)</li></ul>	<ul style="list-style-type: none"><li>• Communication type</li><li>• Messaging approach (Primary and Secondary Messages)</li><li>• Outreach tactic</li></ul>

The program is gathering quarterly information and will have preliminary data analysis the first year after grant recipient program launches (approximately December 2011)

# BetterBuildings Business Models



- Describes the rationale of how an organization creates, delivers, and captures value -- economic, social, or other forms of value
  - Statement of the value proposition
  - Definition of the target market
  - The value chain structure (operations, costs, marketing/sales, service, etc)
  - Position in the market (service delivery, aggregator, general contractor. etc)
  - Competitive strategy
- Seeking business models that are sustainable for:
  - Program administrators or sponsors
  - Service deliverers (home improvement contractors, allied trades)
- Developing framework for evaluating grantee business models AND alternate options for unsuccessful/unsustainable grantee approaches

# Traditional Business Model (Simplified ) for Program Administrator or Sponsor



Business Model	Description	Value to Homeowners	Savings to EE Value Chain	Market Segments Served
<b>Utility or State Energy Office Model</b>	Utility or state programs market rebates or individual technologies or upgrades.  Customers identify their needs, find contractors to make changes, and submit paperwork for rebates.	Reduced cost for technologies or upgrades (but a greater burden on the homeowner to get the energy efficiency upgrades)	<ul style="list-style-type: none"> <li>• Reduced installation costs for homeowners</li> <li>• Avoided electrical generation costs and pollution</li> </ul>	Sponsor may target particular market segments based on maximizing social benefits

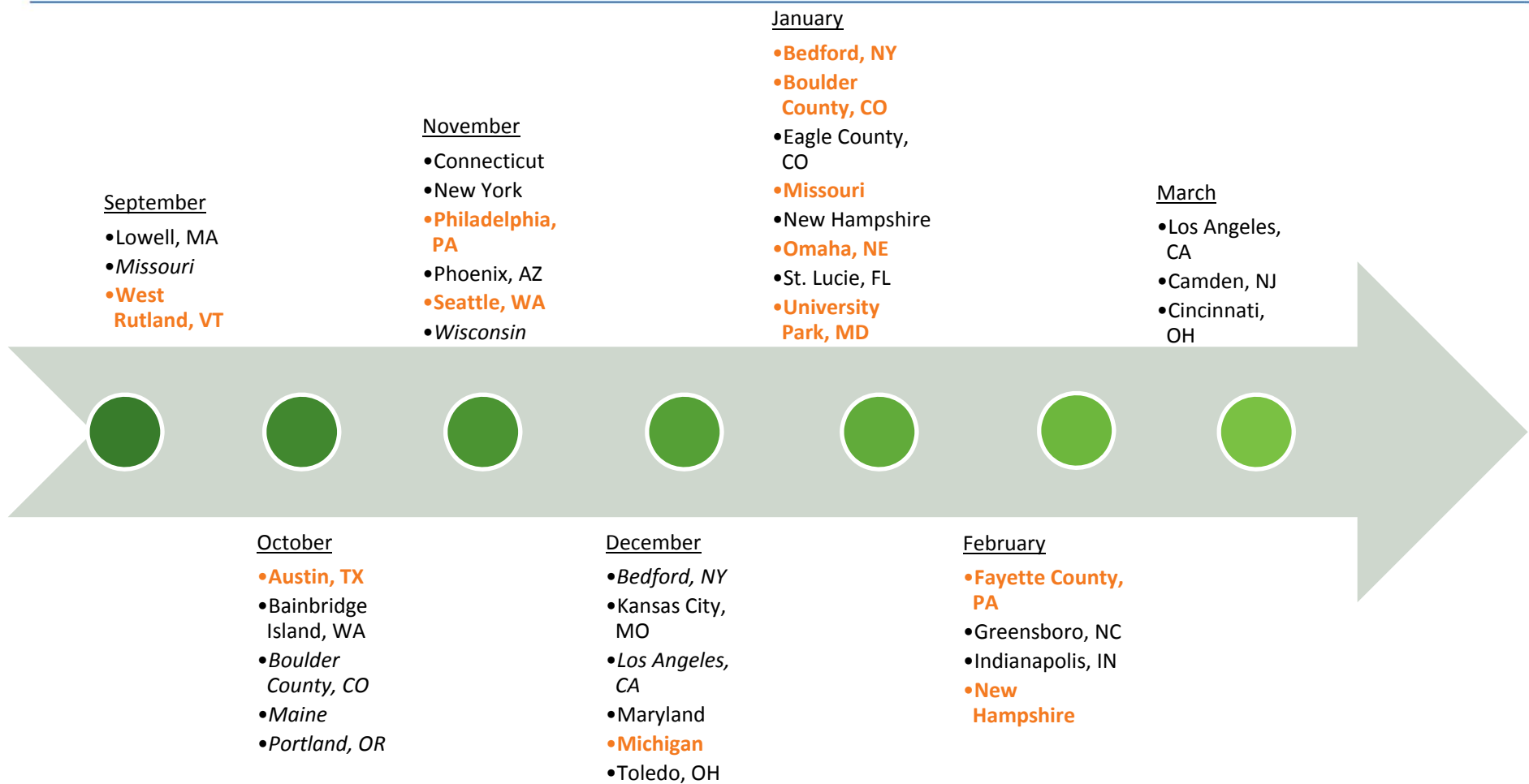
This is a traditional business model for a Program Administrator. Where can we improve to provide more value to homeowners and increase savings in the value chain?

# Innovative EE Residential Business Models



Business Model	Description	Value to Homeowners	Savings to EE Value Chain	Market Segments Served
<b>Remodeler Model</b>	When homeowners are undergoing major home renovations (e.g., additions, kitchen remodel), a remodeler pitches the benefits of bundling energy efficiency improvements.	The Remodeler Model reduces the cost of energy efficiency improvements by 'coat-tailing' on planned remodeling investments.	<ul style="list-style-type: none"> <li>• Reduced sales &amp; marketing costs</li> <li>• Reduced installation costs</li> </ul>	Market Rate Housing
<b>Retailer Model</b>	Retail store offers complementary services (e.g., audits, retrofits) in addition to products and manages the service delivery across contractors	One-stop shop from a familiar, trusted source	<ul style="list-style-type: none"> <li>• Reduces customer acquisition costs</li> <li>• Reduces marketing costs</li> <li>• May have equipment cost advantages through supplier relationships</li> </ul>	Market Rate Housing

# Accomplishments - Program Launches



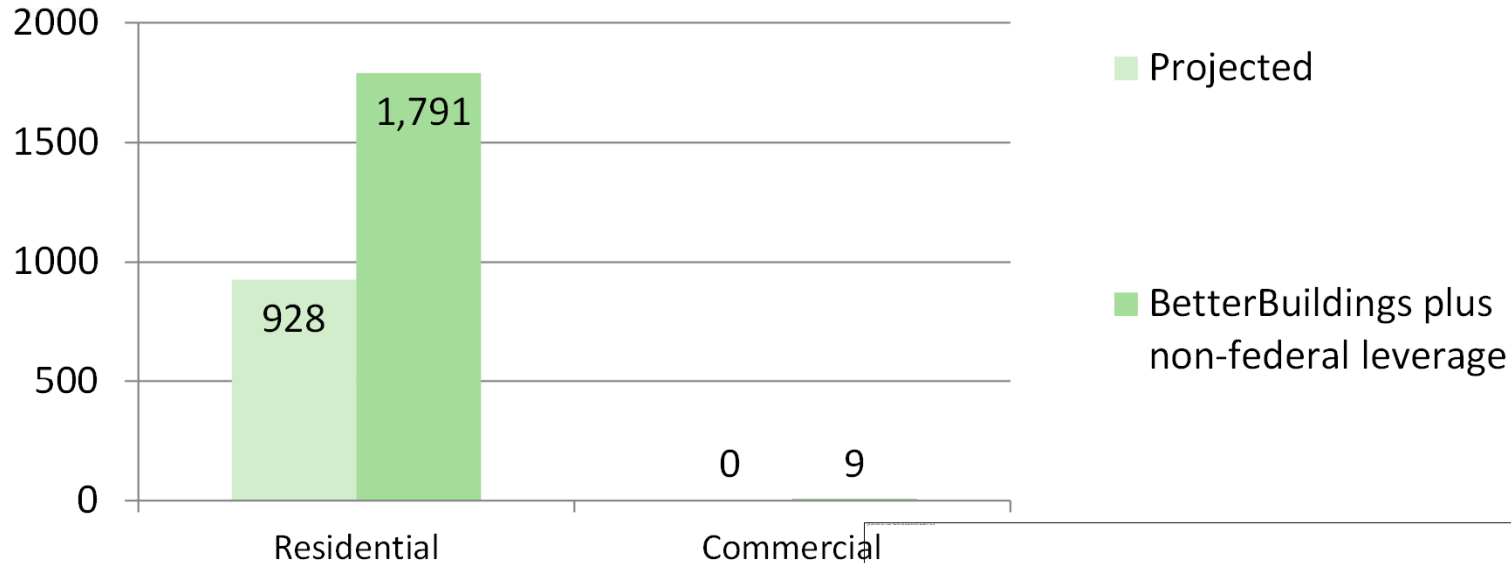
Note: **Orange grantees** held launch events. *Italicized grantees* held soft launches. SEEA subgrantees are launching at various times.

# 2010 Accomplishments



## Building Upgrades Completed, Oct 1 – Dec 31, 2010

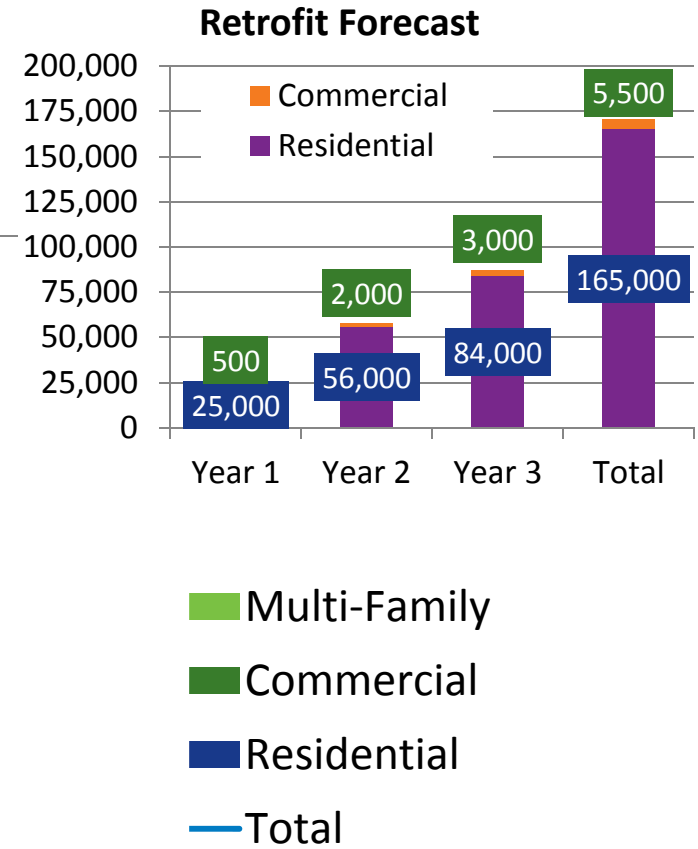
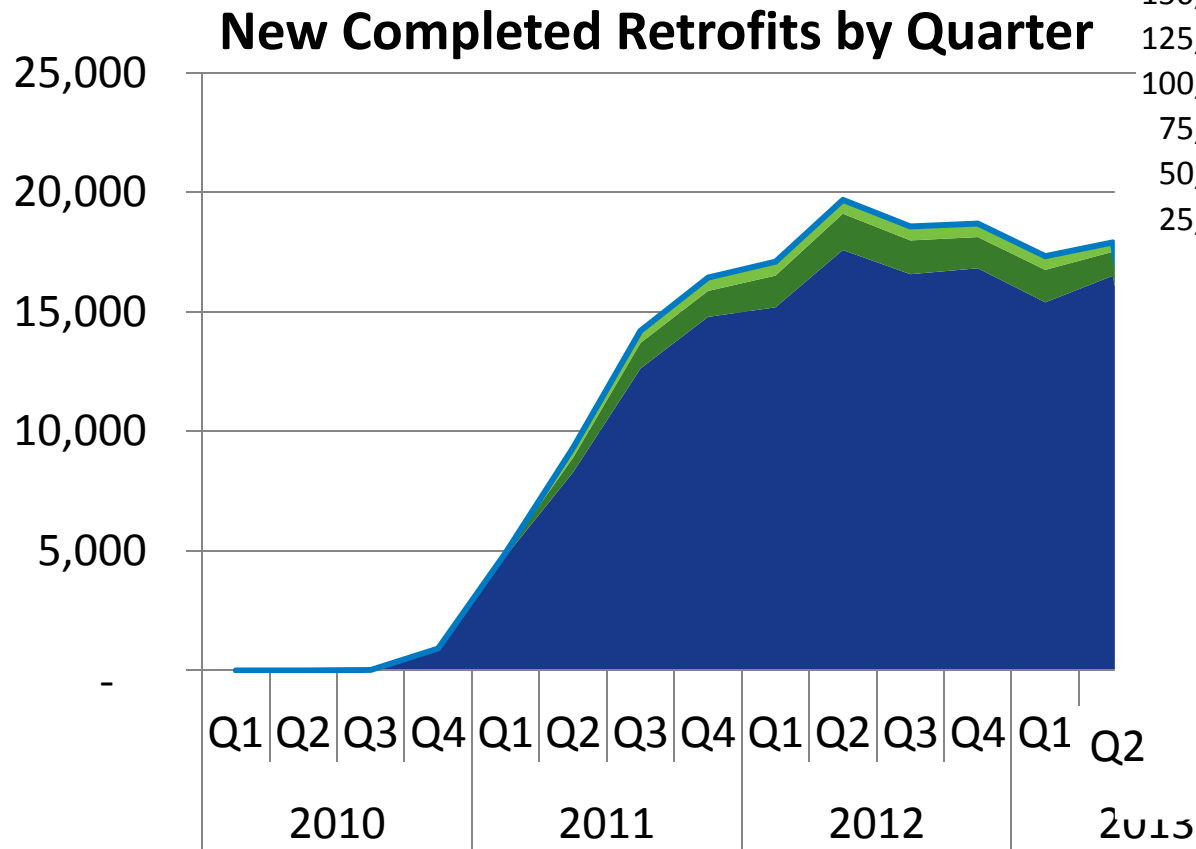
Total = 1,800



- Non-federal leverage = \$23.4 million
- Job-hours = 200,357  $\approx$  385 FTE

*Next reporting April 30 (Jan 1 – Mar 30)*

# What We Will Accomplish



# Innovative Grant Recipient Program Elements

## Energy efficiency concierges

- A trusted individual who walks the homeowner through every stage of the process to increase audit to retrofit completions

## Neighborhood sweeps

- Targeted efforts in specific neighborhoods during a discrete period of time to leverage enthusiasm, take advantage of bulk purchase opportunities, reduce contractor trips and job uncertainty

## Long-term, low interest financing

- Establish loan loss reserves to leverage ARRA funds 5:1 to 20:1; buy down interest rates for consumers; create revolving loan funds to create sustainable programs

## Partnerships with community organizations

- Work with libraries, schools, homeowner associations and others to generate momentum and commitment





# Innovative Marketing

Los Angeles is tapping into a state-wide marketing campaign, including **high-quality videos**

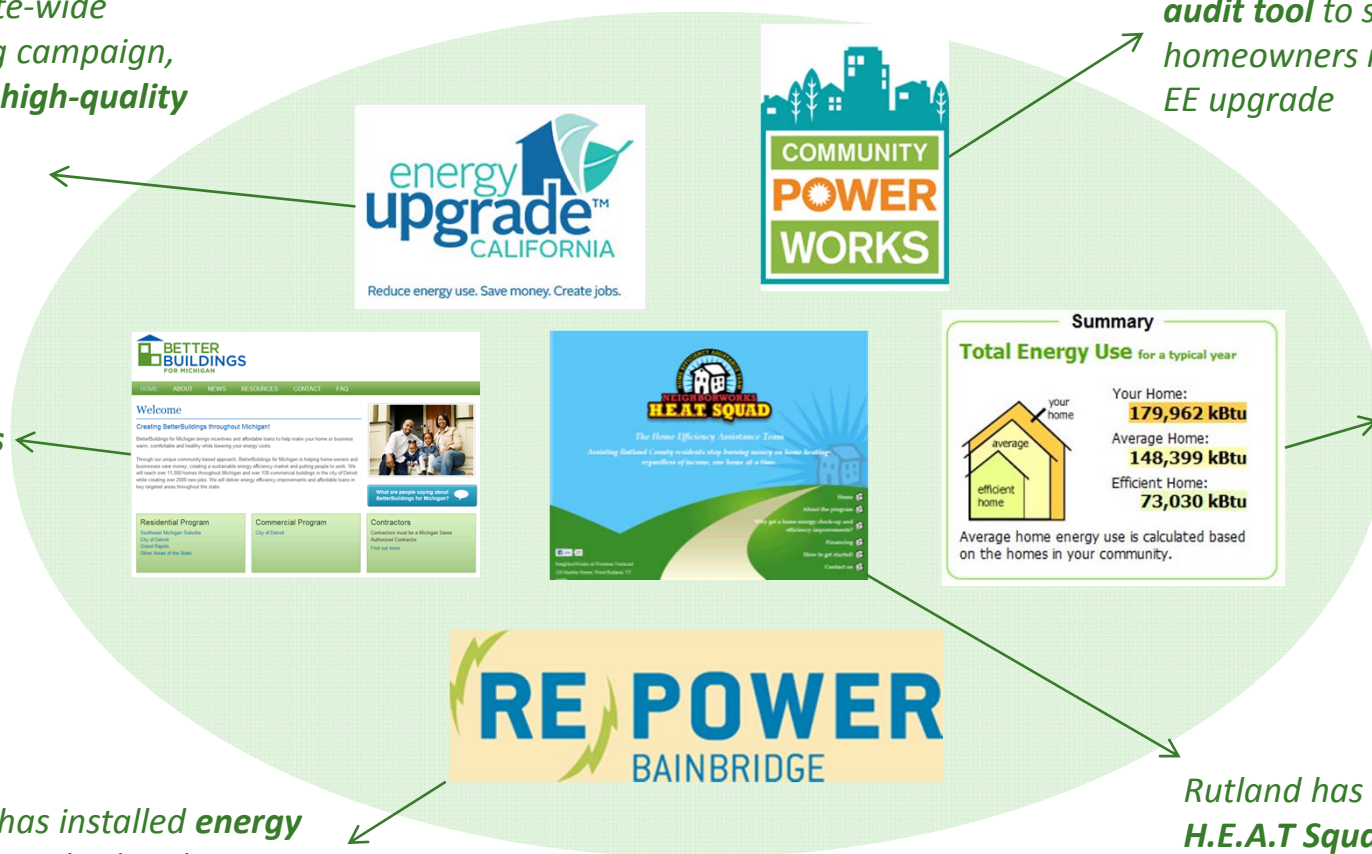
Seattle is using an **online audit tool** to screen homeowners needing an EE upgrade

BetterBuildings Michigan is embracing the **BetterBuildings brand** and promoting it at the local level

Charlottesville is using a new **handheld tool** and will be piloting the Home Energy Score

Bainbridge has installed **energy dashboards** to display the islands energy load throughout the day to change behavior individual consumption

Rutland has created a **H.E.A.T Squad** of friendly neighborhood experts to engage the community about EE benefits



# Early Successes on the Path to Retrofits



- **Bedford, NY** organized an Environmental Summit that **attracted more than 1,000 local citizens** (including Martha Stewart who blogged about it) generating awareness of local energy efficiency resources
- **Los Angeles** has **created a series of high-quality marketing videos** and ads promoting *Energy Upgrade California*
- **Michigan** garnered a **50% participation rate** for a neighborhood canvassing and outreach campaign to provide \$1,200 energy efficiency packages
- **Rutland, Vermont's** community based H.E.A.T. Squad conducted a telethon resulting in home energy assessments for **42% of homeowners who were contacted**
- **Austin's** "Best Ever Offer" one-time incentive of interest free loans to consumers has generated **247 approved loan applications**, of which 22% completed efficiency upgrades by mid-January.



## For More Information



Contact me:

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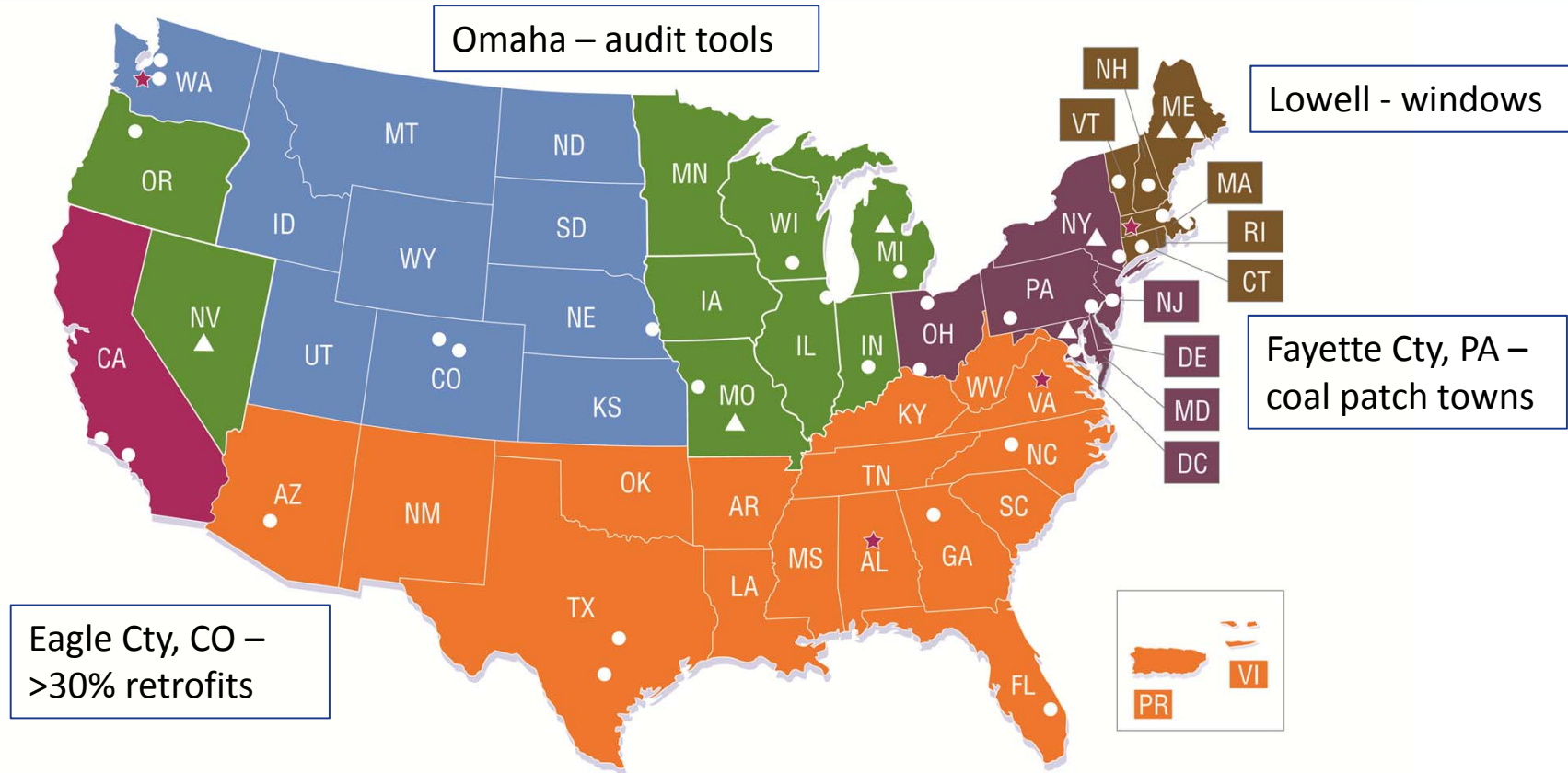
202-287-1320

A screenshot of the BetterBuildings website. The page features a navigation bar with "ENERGY Energy Efficiency &amp; Renewable Energy" and "EERE Home | Programs &amp; Offices | Consumer Information". Below the navigation bar, there is a search bar with "BetterBuildings" entered and a "SEARCH" button. The main content area is titled "BetterBuildings" and includes a breadcrumb trail: "EERE &gt; Buildings Technologies Program &gt; BetterBuildings &gt; Grant Recipients". A sidebar on the left contains links for "Home", "About", "Grant Recipients", and "News &amp; Resources". The main content area has a heading "Grant Recipients Improve Energy Efficiency in Buildings Across America" followed by a paragraph: "BetterBuildings grant recipients are implementing innovative ways to engage, inform, and motivate Americans to increase energy efficiency in buildings. BetterBuildings grants are designed to create a national marketplace for energy efficiency improvements in homes, businesses, hospitals, and other types of buildings." Below this text is a map of the United States with various states highlighted in blue, indicating grant recipient locations. A caption below the map reads: "Click on a state to learn about the BetterBuildings grants in that area:".

...or visit our website:

[www.betterbuildings.energy.gov](http://www.betterbuildings.energy.gov)

# Account Manager Territories



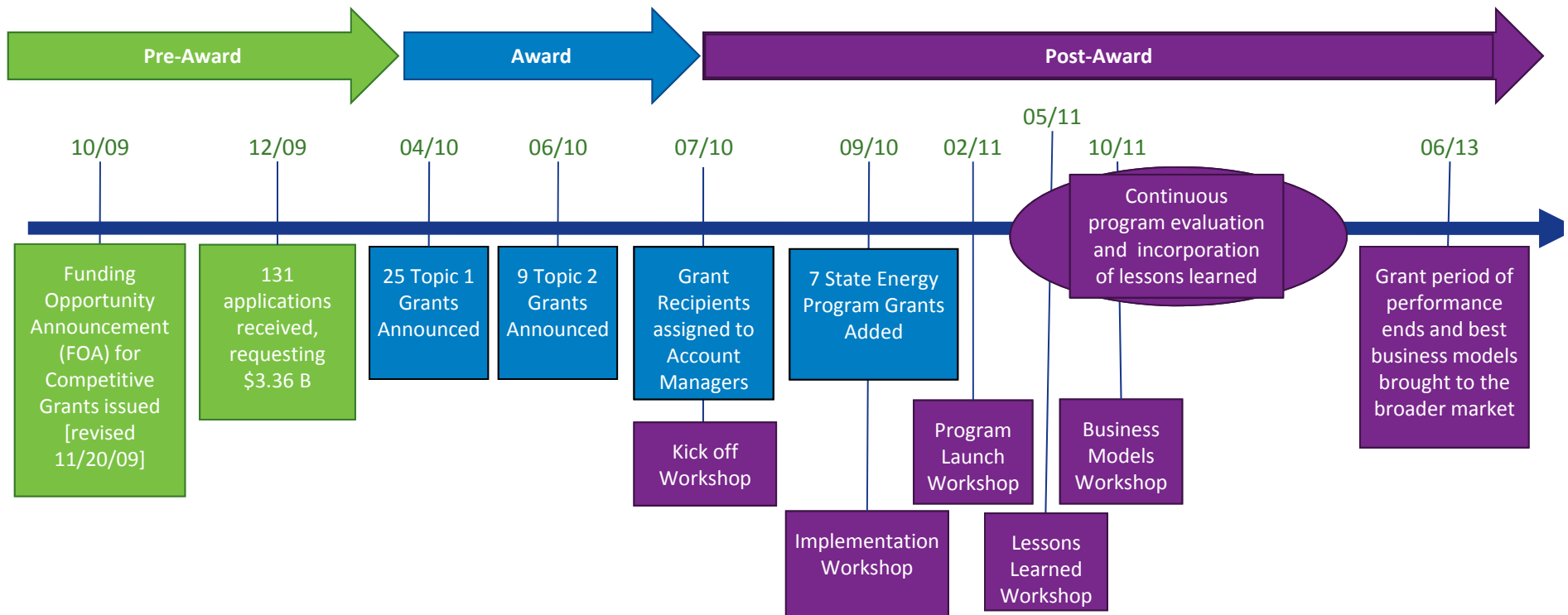
- |   |   |  |
|---|---|--|
| <p><b>Midwest and West</b><br/>Jonathan Cohen<br/>jonathan.cohen@ee.doe.gov</p> <p><b>Northwest and Central</b><br/>Nicole Reed<br/>nicole.reed@ee.doe.gov</p> <p>△ Statewide Grant</p> | <p><b>New England</b><br/>Claudia Tighe<br/>claudia.tighe@ee.doe.gov</p> <p><b>Mid-Atlantic</b><br/>Cynthia Gunn<br/>cynthia.gunn@ee.doe.gov</p> <p>○ City/County Level Grant</p> | <p><b>Southwest and Southeast</b><br/>Lani Macrae<br/>lani.macrae@ee.doe.gov</p> <p><b>California and Multi-State</b><br/>Ely Jacobsohn<br/>ely.jacobsohn@ee.doe.gov</p> <p>★ Multi-State (AL, MA, VA, WA)</p> |
|---|---|--|

## Appendix

The program has an aggressive timeline to achieve results...



## Timeline



...with an immediate focus on establishing grant recipient relationships and building alliances to enable residential retrofit market transformation



# Grant Recipient Program Highlights



Boulder is designing a program that address local problems.

## Boulder County, CO

### Program Strategy

- EnergySmart Colorado is designed to **solve low audit conversion rates** and to prepare homeowners and landlords for a legislative initiative effective in 2014 requiring specific energy upgrades

### Key Innovations

- Boulder created a team of 15 BPI certified energy advisors to serve as a **one-stop source of information** These advisors have full bios online to help 'humanize' the audit experience
- Because the average size of PACE loans was small, Boulder created **microloans up to \$3K** with interest rates ranging from 0.5% to 2%
- Boulder **focus-tested terms** ('energy advisor' tested much better than 'energy concierge' with low income homeowners)

### Early Successes

- Boulder has partnered with the utility Xcel Energy to **reduce the length of the audit report from 20 to four pages**. The new report recommends the top five recommended energy measures



# Grant Recipient Program Highlights

## RePower Bainbridge, Washington

### Program Strategy

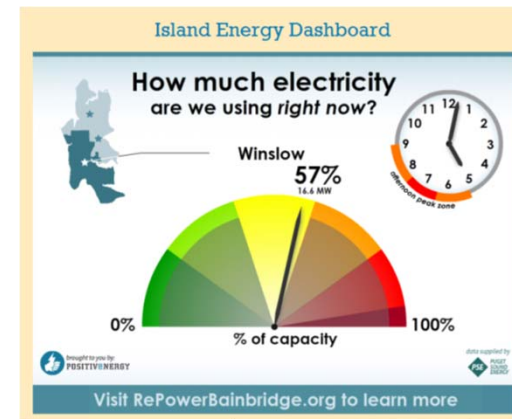
- The goal of RePower Bainbridge is to reduce energy consumption on Bainbridge Island by 20% within three years to reduce the need for a new power generator
- Bainbridge Island is achieving this by combining **targeted energy efficiency services** to home and business owners with an innovative community-based marketing and outreach strategy

### Notable Approaches

- RePower Bainbridge has **installed Community Energy Dashboards** in high visibility locations to display the real time energy use of the entire Island and **influence behavior change**. It is an easy-to-read visual of energy consumption and demand throughout the day, helping residents be engaged in the entire community's energy use, peak energy demand, and the success of RePower Bainbridge

### Early Successes

- The program **uses social media sites** such as Facebook and Twitter to send out **"trigger" messages**, updating residents with the Island's energy demand during periods of **peak energy demand** to decrease energy consumption as well as engaging residents with solutions





# Innovative program delivery strategies

BetterBuildings is working to reduce retrofit delivery costs for providers and consumers

## **Bulk purchasing**

- Camden, NJ
- Rutland, VT

## **Concierge services**

- Boulder County, CO
- Connecticut

## **Pre-qualified contractor list**

- Los Angeles County, CA
- Austin, TX

## **Packaging multiple jobs for contractor bidding**

- Omaha, NE

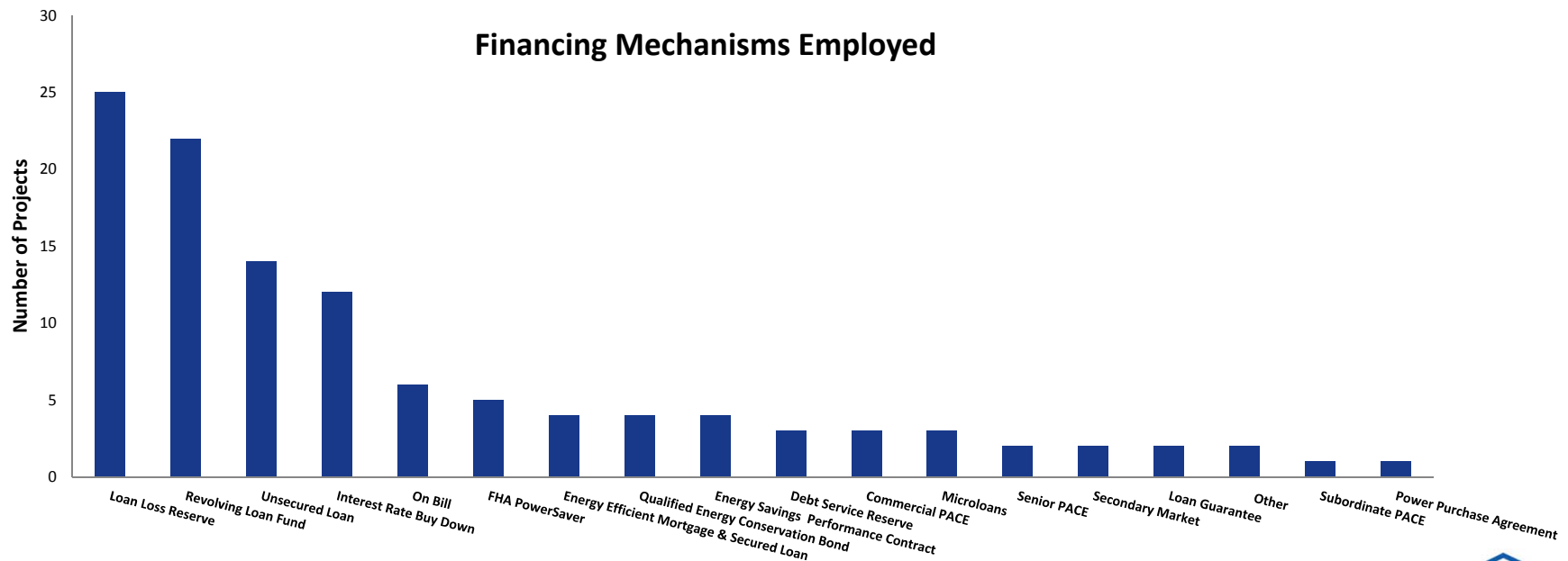
## **Geographically-based contractor scheduling**

- Cincinnati, OH

# Identifying the right financing mechanisms and making them accessible is critical



- **Testing a variety of financing mechanisms can determine**
  - Which mechanisms best support different types of retrofit programs (by sector, by socioeconomic demographic)
  - When financing is not a barrier to uptake
- **Working with local finance providers to create a level of confidence for national application**
  - Ease of accessibility for individuals, tailored to different types of retrofits, and demonstrate loan performance



# Demand creation is addressed through innovative communication and outreach strategies

**OBJECTIVES:** To increase demand for energy efficiency upgrades, communication efforts must:

1 <b>Heighten Awareness</b>	... by using market research and behavior science techniques to target specific audiences, identify their needs, and develop tailored messaging to address those needs
2 <b>Build Enthusiasm and Change Behavior</b>	...by engaging trusted messengers, leveraging incentives, and fostering commitment
3 <b>Continuously Improve</b>	... by imbedding mechanisms that are designed to measure and evaluate the performance of all the marketing and outreach initiatives being used

## ***BOULDER, CO - "Concierge Service"***

The Boulder Concierge service will serve as a "one-stop-shop" for program information, auditor and contractor scheduling, and financing options. The concierge will be the consumer's advocate, providing one-on-one counseling and education, and guiding them through the process from audit to implementation.

## ***CINCINNATI, OH - "Residential Canvass"***

The Greater Cincinnati Energy Alliance (GCEA) has organized over 30 volunteers to go door-to-door in two communities. Volunteers, who included members of the neighborhood, knocked on over 1,000 doors, handed out free fluorescent light bulbs and signed up homeowners for \$50 energy audits.

## ***SANTA BARBARA, CA - "Interactive Web Portal"***

The emPOWER SBC interactive web portal will assist with decision-making and data gathering. The portal serves as an information clearinghouse about energy efficiency savings, rebates and incentives, tax credits, and other financing options to local residents.

# Long term market strength relies on developing a skilled and reliable workforce



- **BetterBuildings has a goal to create or retain 30,000 jobs by 2013**
- **A skilled and reliable workforce makes the sector more consistent and builds consumer confidence in the work**
- **Grant Recipients are building capacity through:**
  - Workforce training and qualification requirements (New Hampshire; Seattle, WA; Portland, OR)
  - Certifying workers to perform all retrofit work (NYSERDA; Wisconsin; Austin, TX)
  - Business development training for small businesses (Fayette County, PA; Seattle, WA)

## Examples of Retrofit Job Types

- **Construction Industry**
  - Installers of HVAC, Insulation, and Windows
  - Plumbers for Boilers
  - Remodelers
- **Construction Retail**
  - Sales Personnel for Retrofit Products (e.g., Insulation, Air Sealing, and Related Products)
- **Manufacturing Industry**
  - Factory Workers for Equipment, Windows, Doors

# Innovative EE Residential Business Models (Simplified) that are Evolving



Business Model	Description	Value to Homeowners	Savings to EE Value Chain	Market Segments Served
<b>Energy Concierge Model</b> (BetterBuilding, PG&E More Than a Million)	Energy Efficiency programs from utilities or NGOs offer a single point of contact to cover upgrades across trades such as lighting and HVAC.	The Energy Concierge Model reduces confusion about multiple program offerings, simplifies the application and rebate process, and simplifies the contracting process.	<ul style="list-style-type: none"> <li>• Reduced sales &amp; marketing costs for program administrators as well as contractors</li> <li>• Reduced installation costs</li> </ul>	Market-Rate Housing
<b>Social Networking Model</b> (examples: OPOWER, Efficiency 2.0)	The company partners with the local utility and invites customers to share their utility bills. In return, the company provides bill comparison to homes in the neighborhood, estimated breakdowns of home end-uses, tips for saving energy, and resources for efficiency upgrades.	The Social Networking Model uses ‘peer pressure’ to create competition and awareness. It also enables homeowners by providing tips for efficiency upgrades as well as a forum to match contractors with homeowners.	<ul style="list-style-type: none"> <li>• Reduced sales &amp; marketing costs for utility program administrators</li> <li>• Targeted sales and marketing for contractors</li> <li>• Reduced installation costs via an expanded and competitive market base</li> </ul>	Market-Rate Housing