An Update on the Better Buildings Neighborhood Program

Danielle Sass Byrnett Program Manager

November 6, 2012

Better Buildings Neighborhood Program



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 2010

Better Buildings Neighborhood Grants

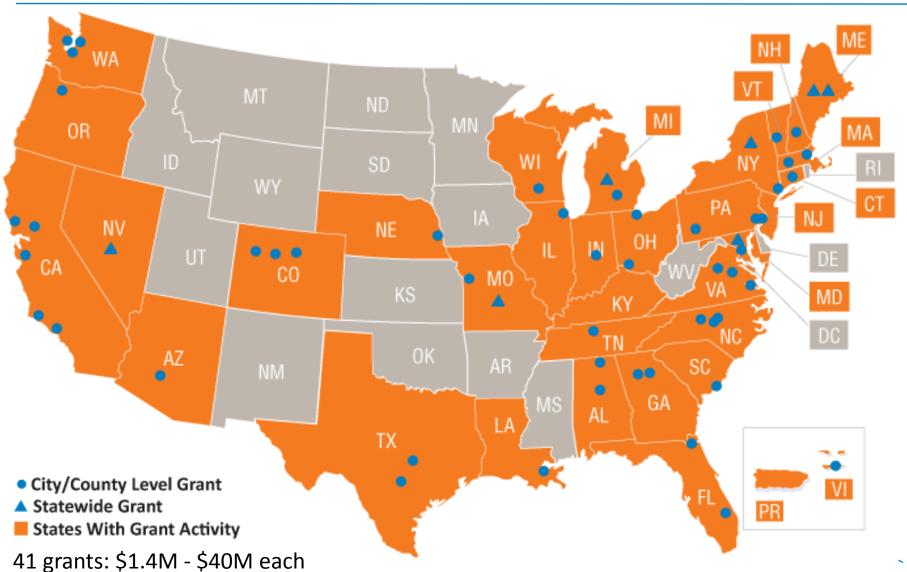


- Leverage \$508M in ARRA and FY10 funding to spur nationwide energy efficiency program innovation
- Target urban, suburban, and rural environments
- Capitalize on economies of scale
- Encourage industry partnerships and investment
- Emphasize sustainability beyond the grant
- Learn what is effective and replicable

The Better Buildings Neighborhood Program is using federal support to promote program innovation and market investment

BBNP Grant Recipient Program Locations





Timing: mid-2010 through late 2013 betterbuildings.energy.gov/neighborhoods

What We Will Accomplish



Grant Recipient Goals by Late 2013

- Retrofit >100,000 buildings (residential and commercial)
- Engage 10,000 to 30,000 contractors in work on energy efficiency upgrades
- Save consumers approximately \$65 million annually on energy bills
- Use the \$508 million grants to leverage \$1 to \$3 billion in additional resources

Goals to Leverage Grants for the Market

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

Vision

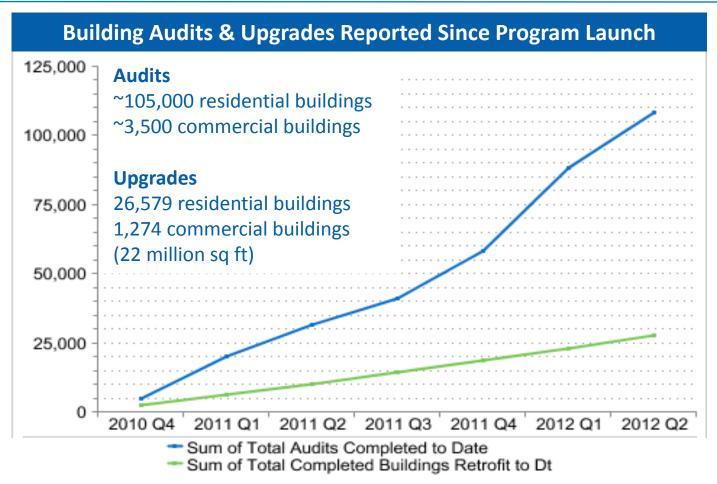
A self-sustaining market for building energy efficiency retrofits that results in economic, environmental, and energy benefits across the United States



PROGRESS

Data through June 30, 2012 (1 of 3)





≈ CO ₂ from	
10,750 cars	

Total Estimated	Total Estimated Source	Total Estimated Site
kWh Savings	MMBTU Saved	MMBTU Saved
79,560,662	1,859,349	1,126,706

Grantee Summary Data through June 30, 2012 for Selection of 11 Programs (2 of 3)



"Top 10" (11) Most Productive BBNP Grantee Programs:

Austin, TX Eagle Co., CO Michigan Portland, OR

Boulder Co., CO Los Angeles Co., CA New York Southeast EE Alliance

Cincinnati, OH Maine Philadelphia, PA

	Residential ³		Residential + Commercial	
	No. of Residential Upgrades	Average Residential Invoiced Cost	Estimated Total Source MMBTU Saved	Estimated Total Energy Cost Savings (\$)
Total ¹	>22,500	\$8,281	>1.36 million	>\$17.99 million
NYSERDA with >5,000 upgrades ²	9,394	~\$7,984	319,954	\$6,781,103
Six grantees with 1,000 – 5,000 upgrades ²	~1,332 – 2,054	~\$2,195 – \$15,229	Average: 153,811	Average: \$1,584,323
Four grantees with 500 – 1,000 upgrades ²	~487 – 954	~\$3,822 – \$10,541	Average: 29,690	Average: \$426,657

¹ Sub-total or average of the 11 grantees considered in this table, which have the highest number of upgrades across BBNP.

NOTE: All data is draft as of reports uploaded on September 8, 2012 and is subject to change. It is known that one grantee in the 1,000 – 5,000 range has underreported upgrades by at least 1,850 at this time due to technical issues.

² Sum of residential and commercial upgrades.

³ Residential data includes residential single-family homes and residential multi-family units.

Data through June 30, 2012 (3 of 3)



Workers

- >1,200 building contractors performing energy upgrade work
- >2,700 trained (optional data field)

Paying for Upgrades

- ~\$208 million in total energy upgrade sales
- \$7,880 average invoiced cost (residential)
- \$9,800 average loan amount (residential)
- >5,400 total loans provided (some missing data)

Leveraged Funds

\$340,955,615

Other Highlights



41 Programs
Launched in
More than 70
Localities to
Test Innovative
Models

Published 11 DOE and 20+ Grantee case studies Learned and Shared at 6 Workshops (7th at ACI)

Shared lessons and challenges in 42 webinars & 54 peer exchange calls

Some programs are seeing 40-80% of leads come from contractors

Created More Than 35 Videos



EMERGING LESSONS

Testing Innovative Approaches



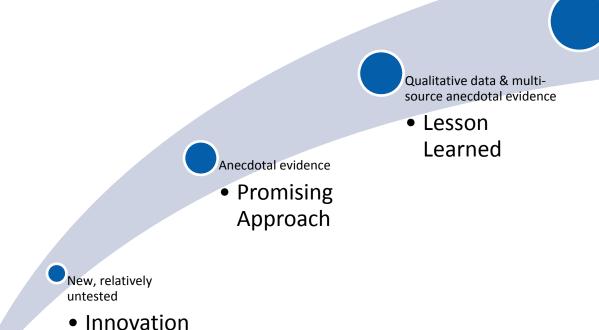


Driving Demand	Financing	Data and Evaluation	Workforce Development
32 Different Approaches	21 Combinations	15 Evaluations Being Performed	12 Models Being Tested

What Do We Call "Lessons Learned"?



Better Buildings Neighborhood Evidence Progression



Mature, fully supported, multi-source quantitative evidence

Best Practice

Getting to Best Practices: Tracking & Analysis



- What tools/approaches were most effective for creating consumer demand?
 - Marketing / outreach (e.g., messaging, communications tactics, delivery venues, messenger [community organizations, real estate, retailers, etc])?
 - Financial products / incentives?
 - Program delivery models?
- What approaches were most effective for generating energy savings?
 - Contractor qualifications?
 - Audit-driven vs. pre-packaged measures?
 - Types of measures (e.g., HVAC, air sealing, lighting, ducts, water heating, etc.)?
- What approaches were the most effective for driving down costs of delivery?
 - Bulk purchasing?
 - Bundling jobs?
 - Contractor experience?
 - Energy advisors?
 - Other?



Getting to Best Practices: Data Collection



Program Data

- Marketing & outreach marketing plan; messaging; results of outreach mechanisms
- Financing credit enhancements, loan type / repayment, capital source, underwriting criteria
- Costs total outlays and obligations by subgrantees, disaggregated program costs (overhead, marketing & outreach, labor & installation)
- Market transformation number of active contractors performing upgrades
- Job impacts total job hours worked under ARRA and leveraged funds

Building Audit / Upgrade Data

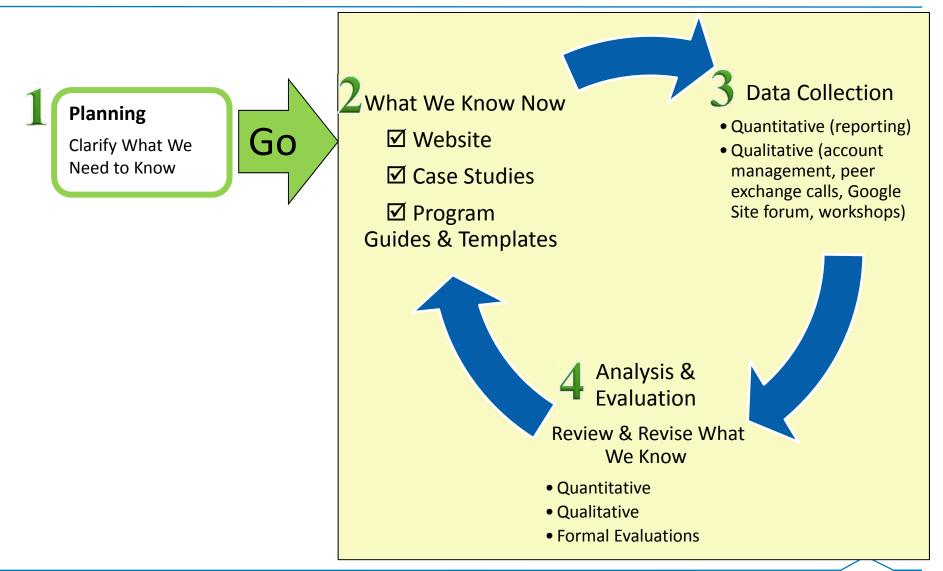
- Completed audits by building sector and by audit type
- Building location, characteristics
- Total invoiced cost, rebates, other incentives
- Installed measures
- Predicted and actual energy savings (energy consumption / utility bills)

Financing Information

- Origination data loan terms and underwriting criteria
- Performance data payment history, charge-offs, early / prepayment
- Loan applications rejected

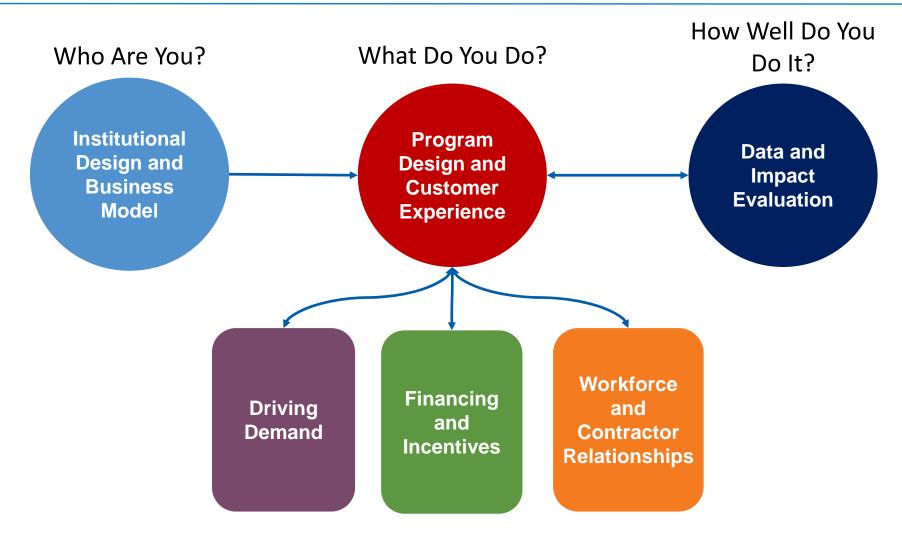
BBNP Commitment to Learning & Sharing





Major Program Components

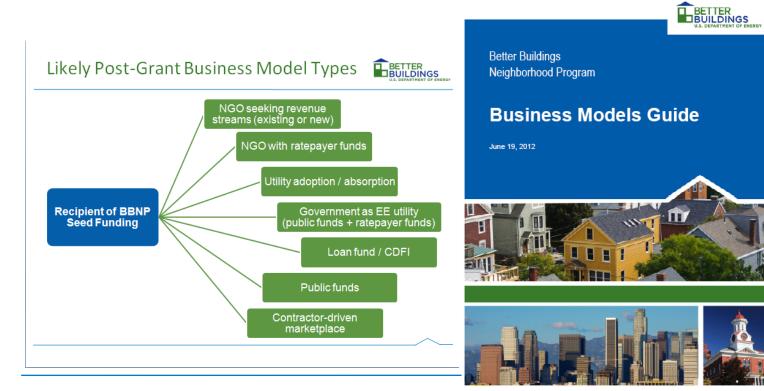




Lessons: Institutional Design and Business Model



- 1. Set geographic boundaries large enough for your customer & contractor base
- Be flexible and embrace change—an entrepreneurial approach is part of the job description
- 3. Avoid bureaucracy whenever possible
- 4. Engage all stakeholders and develop true partnerships



Lessons: Program Design and Customer Experience



- 1. Keep the program simple for the customer
- Make sure you are offering something valuable for your contractors that is worth the time and hassle of being a partner in your program
 - Contractors value leads at \$100-\$300 on average
- 3. Develop process flowcharts that show the necessary steps for each partner:
 - Customer
 - Contractor
 - Financial partner
 - In-house program staff
 - Call center / support center
- 4. Be willing to invest in success up front, then scale back for sustainability
 - Get attention from customers
 - Kick-start the market for contractors
 - Develop early wins to elicit buy-in from stakeholders

Lessons: Marketing and Driving Demand



- 1. Identify discrete target audiences; adapt your tactics & messages to their needs
- 2. Offer what people want and value (not necessarily EE)
- 3. Make it easy for homeowners to understand how to participate
- 4. Contractors are your sales team—empower them & give them something to sell
- 5. Leverage "early adopters" and engage trusted messengers to market the program
- 6. Work with your customers' existing trusted partners for more effective marketing
- 7. Word of mouth is powerful, so give people something to talk about
- 8. Use competitions, time limited offers, and other deadlines to motivate action
- 9. Use language that resonates with your target audience
- 10. Make benefits visible by showcasing completed projects and actual results
- 11. Follow through with customers—one touch is not enough
- 12. Door-to-door marketing works better to advertise events than to "make a sale"
- 13. Follow up quickly on leads to take advantage of the "opportunity window"
- 14. Track and evaluate what works (and doesn't), and adapt your marketing approach

Lessons: Financing and Incentives



- 1. Focus financing offers on specific gaps and opportunities in the market
- 2. Target financial incentives at desired behaviors and program priorities
- 3. Simplify the process and criteria to help customers qualify for loans quickly
- 4. Work directly with potential partners; make a clear & specific business case
- 5. Leverage financial sector marketing channels and opportunities
- 6. Involve contractors in design to make them champions of financing options
- 7. Speak like your customer—low payments, low interest rates, more lattes
- 8. Adapt and refine based on feedback from financial partners and others
- 9. Relationships among partners are vital to success; interact regularly
- 10. Design your financing program now in light of long-term goals
- 11. Provide financing and working capital for contractors, not just customers

Lessons: Workforce & Contractor Relationships



- 1. Tap existing resources to identify qualified contractors and recruit & train
- 2. Help your contractors drive sales; they can be your most effective sales force
- 3. Start with enough trained contractors to launch, then decide on training
- 4. Help smaller, local contractors enter the market by lowering the cost of entry
- 5. Support in-field learning and mentoring for newly trained (/ all) workers
- 6. Don't be afraid to differentiate contractors based on certification or skills
- 7. Create value for contractors through leads & coordination so they give you value
- 8. If you establish a high road agreement, help contractors comply w/requirements
- 9. Listen to your contractors to evaluate and adapt your program
- 10. Ensure program integrity through QA and ongoing feedback from homeowners
- 11. Have clear rules and systems for rewarding contractors and remedying problems
- 12. Help contractors educate customers on effectively using equipment post-upgrade

Lessons: Using Data to Support Program Administration



- 1. Identify info needs early and establish a data collection & evaluation plan
- 2. Approach utilities and other potential data partners early in the program
- 3. Choose a system to collect & sort information across partners and activities
- 4. Use systems to streamline the program process for homeowners & contractors
- 5. Develop a program "dashboard" of your most important metrics & track them
- 6. Recognize that data has considerable value—and requires resources
- 7. Provide adequate time and resources to ensure quality data
- 8. Ask & listen to customers and contractors to evaluate your program
- 9. Set realistic expectations about program milestones
- 10. Ensure data collection supports your ability to perform cost-effectiveness tests



WHERE WE ARE HEADED

BBNP Commitment to Learning & Sharing



Planning

Clarify What We Need to Know Go

Decision Tool

- Step-by-step guidance
- Options
- Examples
- Tools
- Templates
- Promising approaches, lessons learned, best practices

What We Know Now

- ☑ Website
- ☑ Case Studies
- ☑ Program
 Guides & Templates

3 Data Collection

- Quantitative (reporting)
- Qualitative (account management, peer exchange calls, Google Site forum, workshops)



- Quantitative
- Qualitative
- Formal Evaluations

Repository for Lessons Learned



"Decision Tool" Purpose and Scope:

- Share comprehensive lessons for residential energy efficiency programs based on learning from rapid expansion and experimentation in the field
- Provide an easily-accessed, robust location for key resources and knowledge
- Help program administrators plan, implement, manage, and evaluate residential energy efficiency programs as effectively as possible

Aiming for first release at ACI 2013

Decision Tool Audiences



- 1° Program Administrators and Implementers
 - utilities, energy service providers, state energy offices, municipal governments, NGOs
- 2° Program and Service-Delivery Partners
 - contractors, financial institutions, marketing firms
- 3º Program Evaluators



Step-by-step Guidance

Step #1: <u>Set Goals and Objectives</u> Step #2: <u>Create an Evaluation Plan</u> Step #3: Conduct Audience Research

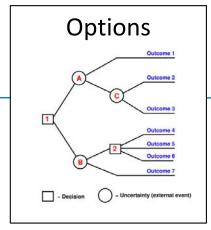
Step #4: Identify Target Audience and Behavior Change

Step #5: Create Effective Messages

Step #6: Build Partnerships

Step #7: <u>Develop a Marketing Plan</u> Step #8: Implement Your Marketing Plan

Step #9: Assess Your Progress







Promising Approaches, Lessons, and Best Practices

Use professional, compelling messaging

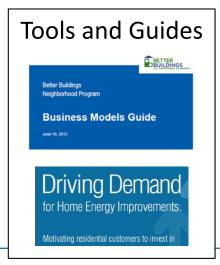
- Using behavioral research
- Avoiding "audit" and "retrofit"
- Tapping into social norms
- Attention-grabbing messages



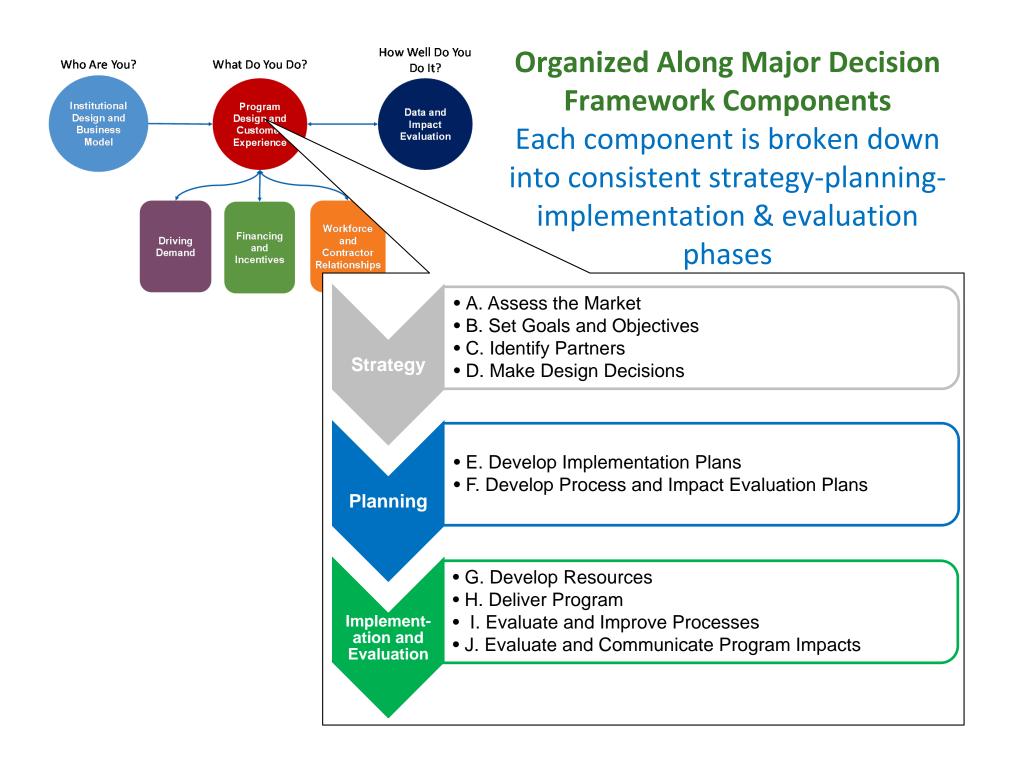
Templates



Decision Tool Resources







Path Forward for Populating the Framework & Building the Tool



July – Dec. 2012: User Needs and Design Options

- Solicit user needs for decision tool
- Scope tool features & software options
- Contract tool creator
- Continue gathering resources

May – Dec. 2013: Tool Release

- Publicize widely
- Review, refine, ID gaps
- Continue adding resources





• Build & populate decision tool



RIGHT NOW

Learn More



www.betterbuildings.energy.gov/neighborhoods

Resources:

- Case Studies
- Lessons Learned
- Innovations
- Webcasts
- Conferences and Workshops
- Videos
- Tools/Calculators
- "Run A Program"







Catch Up on the Conference!

Residential Energy Efficiency Solutions: From Innovation to Market Transformation

The Better Buildings Neighborhood Program would like to thank the nearly 400 participants and presenters for a successful, informative conference.

Learn more/view conference presentations



Get Inspired!

Case Studies

in Record Time





Financing and Incentives Better Buildings Spotlight on Michigan: Experiment to Find the Right Mix of Incentives With support from the U.S. Energy Department's Better Buildings Neighborhood Program, a diverse coalition of partners under the banner of BetterBuildings for Michigan designed 27 renighborhood "weepers" arous the state. These trapsted outner campaigns applied varying incretives and outness trateleges to designated neighbor-hoods with a goal to understand which incretibes and strategies work best in the targe. Key Takeaways Weight incentives to reward deep energy improvements over general program participation in order to In the enfect sweep, program staff coused on maximizing the number of participates, conceiving a disapport energy assessment and some energy efficiency. Internative staff the continues could the programs. These pockage. Program staff cauckly residued that to achieve desper-cently salenge with a stage of at least 65 by From. But you cold need the some of the contrast participates. The country of the staff of the country of the country and the measures. Using this information, Distributioning for Michigan changed as approach in subsequent tweeps and officer details to provide larger scope of work of seath brine Asid June 2002, the program had completed nearly half of the 27 weeps and continues Asid June 2002, the program had completed rearly half of the 27 weeps and continues to perform the larger and depth of the contrast of the best stadeges for each community. The experiment with program designs to undestant the best stadeges for each community. maximize energy savings per home Recognize that neighborhood characteristics are important determinants of customer participation, sometimes more so than incentive levels Ensure that the program is flexible enough to adapt Create Multidimensional Incentives to Address its features based on **Customers' Varying Needs** feedback and results during implementation In all of the Michigan s

energy assessment, direct is sweep. The cost of the base incentives for Additional h

are encouraged to underta savings, including insulation These incentives are most

their size and structure vari Financing: All sweeps offer Saves,² which provides stan-at 7% interest for up to 10 ye

Table 1 shows the combination of

sweeps. For the base package, th

contractors, and measures inclu

Michigan: **Experiment to** Find the Right Mix of Incentives



Spotlight on Portland, Oregon: Making the Program Work for Contractors

Energy Works Oregon (CEWO) balances contractors' work priorities with the program

As of May 2012, CEWO had 50 home performance contracting firms in its network

CEWO has achieved this success with ongoing feedback from contractors and partic

need to enforce quality standards, track results, and ensure good customer service. From the outset, CEWO leadership knew that actively engaging contractors would be critical to the program's success, but figuring out how to do so has been a learning process.

had completed 1,600 upgrades since the pilot launched in summer 2009, and received extremely positive feedback on their contractors' performance in customer surveys. Additionally, 40% of projects completed under the program are the result of contractor

Key Takeaways

- Solicit ongoing feedback from contractors and participants and use information to guide program improvements
- Encourage formal contractor networks that are able to represent contractors' needs
- Design contractor incentives that align with program goals
- Reward high-performing contractors and support new professionals with skills training and mentoring
 - classes as well as mentoring opportunities for new contractors

CEWO started as a pilot in Portland, Oregon, in summer 2009 with a mission to e energy, and transform the energy efficiency market. The program wanted to accomplish energy, and transform the energy efficiency market. The this mission in a way that equalshably employed a diverse set of contractors, including minority-owned, women-owned, and emerging small business contractors. To both ensure high-quality work and spread this economic opportunity to workers from disadvantaged communities, CEVO selected top performing home

performance firms that follow best practice quality urance protocols and meet High Road Standar

Portland, Oregon: Making the **Program Work for Contractors**

Revised July 2012

11/5/2012

More Lessons Learned & Examples



www.betterbuildings.energy.gov/neighborhoods/workshops_july_2012.html

EERE » Building Technologies Program » Better Buildings Neighborhood Program » Tools & Resources » Workshops

Printable Version



Resource Directory

Case Studies

Webcasts

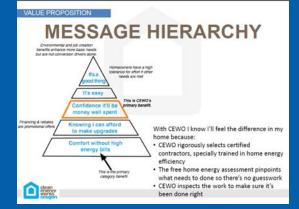
Workshops

Grants Administration

Residential Energy Efficiency Solutions: From Innovation to Market Transformation Conference, July 2012

From July 9-11, 2012, the U.S. Department of Energy brought together administrators and implementers of residential energy efficiency programs to share program implementation solutions, strategies, and techniques. Conference participants included state and local governments, utilities, non-governmental organizations, Better Buildings Neighborhood Program partners, Home Performance with ENERGY STAR® Sponsors, Home Energy Score Partners, and other stakeholders.

Will Villota, Clean Energy Works Oregon





3. Using Data- improving complete rates

Learning: significant drop-off if more than ~3 days before contractor calls to schedule.

Actions:

Contractors: must contact within 3 business days Neighbor to Neighbor:

- · Same day and in-field data entry
- · Receipts with contractor name
- · Automated reminder email upon entry of lead.
- · Weekly call nights focusing on customers lost by contractors.
- · Outreach staff obsessively watches high quality leads

Refining Lessons Learned: Danielle Sass Byrnett, U.S. DOE

2) Offer what people want and value (not necessarily energy efficiency)—and offer it when they want it

 Take advantage of seasonal opportunities to give homeowners what they need, when they need it





 Your program is <u>delivering</u> energy efficiency, but your customers are <u>buying</u> comfort, durability, value, cost savings, health, community pride, a sense of belonging, or a solution to a problem

See BBNP case study: Rutland County, VT - How Local Ties Lead to Local Wins, April 2011

Jonathan Doochin, U.S. Green Data

What You're Thinking... Yum! How Our Mind Processes Incentives

The psychology of what's going on in your head....



Contractors are your friends (really!)

- They are the #1 source of referrals
- If you don't work with them, they may also be your #1 source of headaches
- If they are trained and certified, with strong building science background, they will help you achieve your goals
- A contractor pool is beneficial to you and to the contractor community- even if they complain!

Elizabeth Babcock, City/County of Denver

Roger Smith, CT Neighbor to Neighbor

Make Your

April 30-May 3, 2013 DENVER, CO

at the

2013 ACI National Home Performance Conference





REGISTER TODAY

at

www.affordablecomfort.org/national2013

Thank you



Danielle Sass Byrnett

U.S. Department of Energy Better Buildings Neighborhood Program

betterbuildings@ee.doe.gov



Sign-Up for the Better Buildings Neighborhood View:

www.betterbuildings.energy.gov/neighborhoods/contacts.html