



Better Buildings Residential Network Peer Exchange Call Series: *Generating Demand for Multifamily Building Upgrades*

Call Slides and Discussion Summary

May 14, 2015

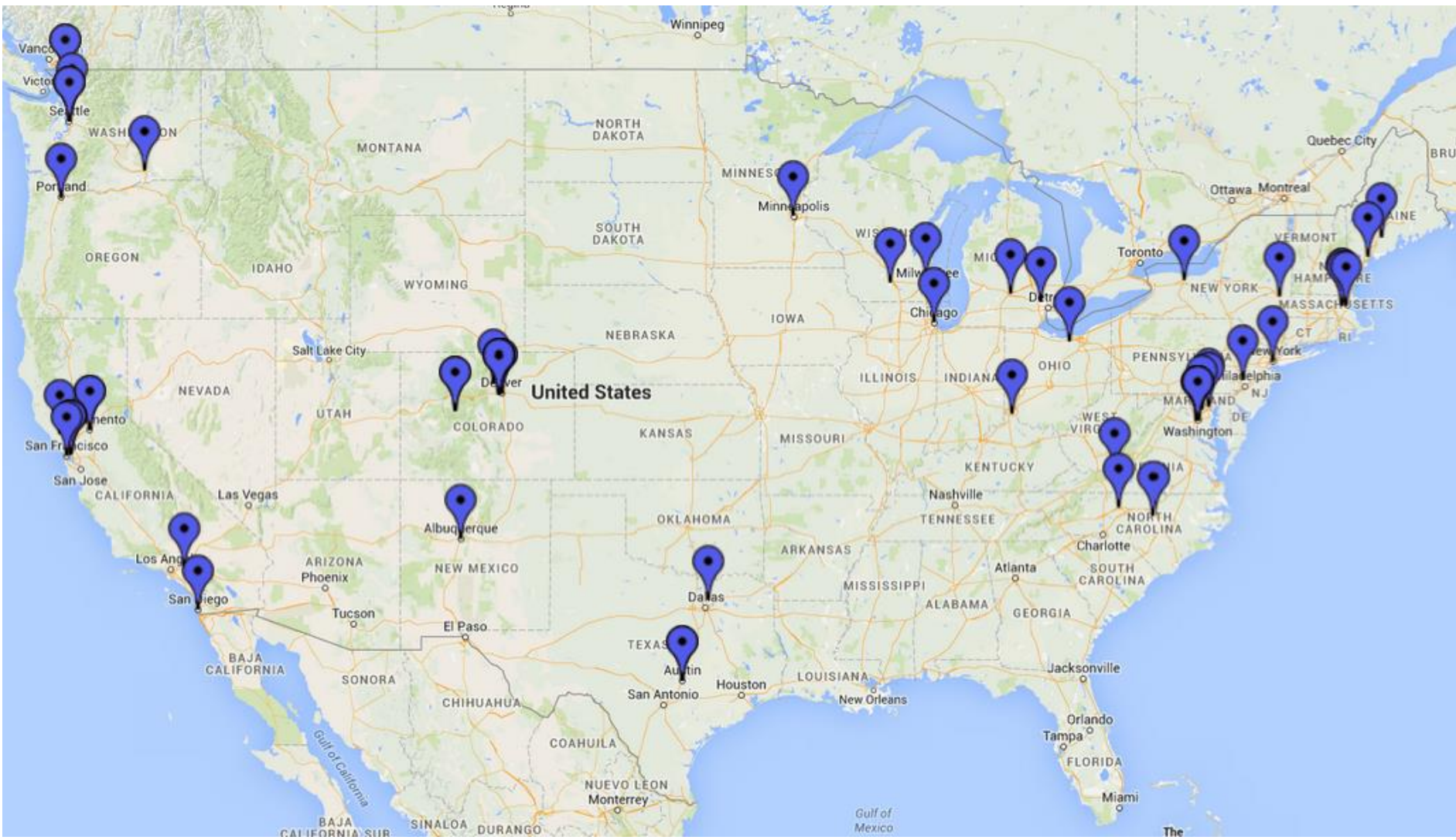
Agenda

- Call Logistics
- Opening Poll
- Residential Network and Peer Exchange Call Overview
- Featured Speakers
 - **Brody Vance**, Focus on Energy Multifamily Energy Savings Program, Wisconsin
 - **Misha Sarkovich**, Sacramento Municipal Utility District (SMUD), California
 - **Elizabeth Terry**, National Grid, & **Margaret Kelly**, Eversource, Massachusetts (Mass Save)
- Discussion
 - What approaches has your organization used to generate demand for energy upgrades at multifamily buildings? What is most effective? What hasn't worked well, and why?
 - What are useful ways to tackle the split incentives for energy upgrades between multifamily building owners and tenants?
 - What other challenges has your organization had with marketing/outreach to multifamily properties? How have you addressed those challenges?
 - Other questions/issues related to generating demand at multifamily properties?
- Closing Poll

Call Participants

- American Council for an Energy-Efficient Economy
- Arlington County, VA
- Austin Energy
- Brand Cool
- Build It Green
- CBI
- California Energy Commission
- City and County of Denver (CO)
- City of Aspen (CO)
- City of Bellingham (WA)
- City of Farmington Hills (MI)
- City of Plano (TX)
- City of Seattle (WA)
- CLEAResult
- CMC Energy Services
- California Public Utilities Commission
- Center for Sustainable Energy
- Economic Opportunity Studies
- Elevate Energy
- Emerald Cities Seattle
- Efficiency Maine Trust
- Energy Smart Colorado
- EnergySavvy
- Environmental Design/Build
- Eterna Tile, Inc.
- Eversource
- Flisrand Consulting/NEWHAB
- Franklin Energy Services, LLC
- Greater Cincinnati Energy Alliance
- International Center for Appropriate and Sustainable Technology
- ICF International
- M&T Bank
- Michigan Saves
- MPower Oregon
- National Grid
- National Housing Trust
- NCBPA
- NEEP
- NYCEEC
- NYSERDA
- Opportunity Council
- Res-Intel
- Sacramento Municipal Utility District
- Snohomish County PUD (WA)
- Southern Energy Management
- Sparhawk Group
- Stewards of Affordable Housing for the Future
- The Oberlin Project
- Town of Blacksburg (VA)

Call Participant Locations



Opening Poll Results

- Which of the following best describes your organization's experience with generating demand for multifamily energy efficiency upgrades?
 - Some experience/familiarity - **37%**
 - Very experienced/familiar - **30%**
 - Limited experience/familiarity - **27%**
 - 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 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.


- **Better Buildings Residential Network Group on Home Energy Pros**

Join to access:

- Peer exchange call summaries and calendar
- Discussion threads with energy efficiency programs and partners
- Resources and documents for energy efficiency programs and partners

<http://homeenergypros.lbl.gov/group/better-buildings-residential-network>

Better Buildings Residential Network Group on Home Energy Pros Website



Better Buildings Residential Network
Created by Better Buildings Support

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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/bbm>


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.


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- [Better Buildings Residential Network](#)
- [Better Buildings Neighborhood Program Website](#)
- [Home Performance with ENERGY STAR](#)
- [Home Energy Score](#)



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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


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?

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

"I would like to begin with a disclaimer that I am an Aeroseal 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

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](#)

[CleanEdison updated an event](#)



Entry Level Solar Photovoltaic at Cotuit, MA

September 30, 2012 to

Peer Exchange Call Series

- Calls are held the 2nd and 4th Thursday of every month at 12:30 and 3:00 ET
- 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:
 - June 11, 12:30-2:00: Shark Tank: Residential Energy Efficiency Edition
 - June 11, 3:00-4:30: Leveraging Seasonal Opportunities for Marketing Energy Efficiency
 - June 25, 12:30-2:00: Creative Financing Approaches for Residential Energy Efficiency Programs
 - June 25, 3:00-4:30: Strengthening the Front Lines: Sales Training and Continuing Education for Contractors

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%

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U.S. DEPARTMENT OF ENERGY

The screenshot shows the homepage of 'HOME ENERGY PROS' with the tagline 'Connecting home energy professionals'. The navigation menu includes Home, Invite, My Page, Members, Forum, Blogs, Groups, Photos, Videos, and Events. 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
 - Templates
 - Lessons learned
 - Best practices
 - Tips
- Continually add content to support residential EE upgrade programs—**member ideas wanted!**



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

**Program Experience:
Brody Vance
Focus on Energy, Wisconsin**

WHAT IS FOCUS ON ENERGY?

- Wisconsin's statewide energy efficiency program
- Legislature created the program in 1999, and expanded it in 2005
- Increasing Wisconsin's energy independence
 - Helping implement energy efficiency projects that would not otherwise happen



focus on energy™

Partnering with Wisconsin utilities

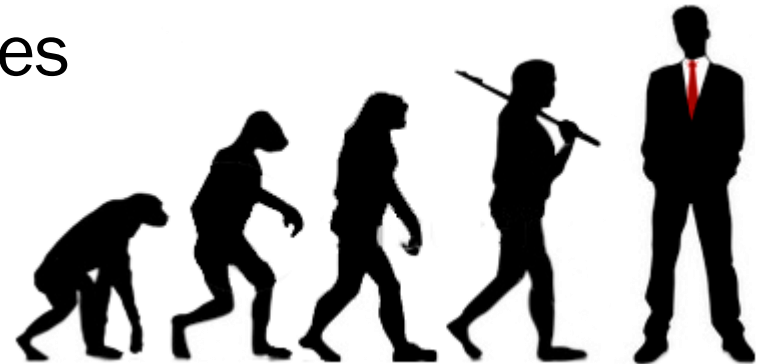
WHAT ARE THE DRIVERS FOR EE IN MF BUILDINGS?

- Marketability
- Tenant comfort
- Reduce energy costs
- Reduce maintenance/repair costs of equip.
- Demand of the market because of tenant education
- EE program rewards?

MF PROGRAM EVOLUTION

Program change, locally or nationally, for various reasons:

- Utility driven changes
- Implementer driven changes
- Technology driven changes
- Saturation driven changes
- Market driven changes



INITIAL MF PROGRAMS

- Simple beginnings involving Direct Install
 - Showerheads, Aerators, CFLs, LEDs
- Low Hanging Fruit (in most cases)
- Lock onto a few “Whales” for projects
- Evolve into more advanced DI measures
 - Thermostats, Pipe Wrap, LED exit signs, smart strips, temperature turn downs, vending misers, etc.

2ND STAGE MF PROGRAMS

- Programs may mature to include service related items in addition to DI
 - Equipment tune-ups, steam trap repair/replacement & controls
- Often Trade Allies are needed to help deliver the program and some marketing is needed

3RD STAGE MF PROGRAMS

- In addition to DI and service measures, you add prescriptive offerings like CFL or T8 fixtures. High Efficiency HVAC equip.
- Requires more Trade Ally involvement and different applications depending on your goals (gas vs. electric vs. both)
- Much more marketing is needed

4TH STAGE MF PROGRAMS

- DI, Prescriptive, and Custom measures are offered with many projects coming from Trade Allies
- More complicated systems may require engineering support
- Marketing & Outreach is needed much more to bring you both customers and Trade Allies

FINAL STAGES OF MF PROGRAM

- “Whole Building Concepts” and energy modeling/simulation in addition to custom, prescriptive, and DI measures
- Building performance or benchmarking rewards that have tiered incentives to leverage multiple measures in one building
- Established Trade Ally network and repeat customers are a must

INNOVATION IN MF PROGRAMS

1. Whenever possible combine DI with the Energy Assessment
2. Electronic Data Collection
3. Contractor delivered services
4. Tools for convincing decision makers
5. Account Management of MF owners/management companies

Lessons Learned: Wisconsin

- Approaches to generate demand for multifamily energy efficiency programs varies by program stage:
 - Initial Stage: target direct installs, the low-hanging fruit.
 - Stage 2: Involve trade allies and introduce marketing.
 - Stage 3: Offer prescriptive measures and increase marketing and outreach.
 - Stage 4: Further integrate trade allies; offer more complicated, custom projects.
 - Final Stage: Offer whole building approaches; have an established trade ally network; and cater to repeat customers.
- An interested customer is always a program's first hurdle; trade allies help programs bring in customers.
 - Wisconsin's trade allies include energy advisors and engineers.
 - Trade allies also provide technical expertise, help to educate customers, and are trained in energy efficiency standards.
- The Wisconsin program experimented with providing referral bonuses to trade allies.
 - Rather than the bonuses, trade allies saw more value in receiving assistance with the program forms, and being able to reduce their prices to customers through the program's incentives and rebates.

Lessons Learned: Wisconsin (Cont.)

- Direct installs don't have to be “the beginning and the end” for interaction with building owners. For multifamily properties, larger projects need to coincide with the owner's budget cycle. Direct install programs can act as a stepping stone to more advanced measures.
 - Building owners who weren't refinancing didn't have the budget to do the larger measures.
 - The program's incentives only covered about 20% of project costs.
 - The PACE program is offered in Wisconsin, but although multifamily buildings are eligible very few have used it to finance deep energy efficiency upgrades.

**Program Experience:
Misha Sarkovich, PhD
Sacramento Municipal Utility District
(SMUD)**

SMUD's Multifamily Energy Efficiency Program: generating demand for multifamily building upgrades (2008-2015)

- Misha Sarkovich, Ph.D.
- May 14, 2015
- DOE Better Buildings Residential Network

What is SMUD?

- ❑ **SMUD generates, transmits, and distributes electric power to 900 square mile territory (i.e. Sacramento County)**
- ❑ **Municipal Utility– governed by 7 member board of directors elected by the voters**
- ❑ **\$1.3 billion operating revenues in 2015**
- ❑ **About 2,000 full time employees**
- ❑ **More than 600,000 customers in 2015**
- ❑ **1.4 million people in SMUD service area**
- ❑ **J.D. Powers – 2007 – 2014 recognition**

MF energy efficiency market barriers

- **Split incentives between tenants and property owners.** Tenants are reluctant to invest in efficiency improvements to property they do not own, although they pay the energy bill for their residences. Property owners are reluctant to invest in energy efficiency retrofits when they do not pay the energy bill.
- Complexity of the MF market, in which many different market players (property owners or managers), in-house or outside maintenance staff, can influence the decision making process.

SMUD's Objective for the Multifamily Energy Efficiency Program

- The purpose of the SMUD's MF program is to capture energy-savings potential in existing apartment dwelling units (as well as the properties' common areas) which, for the most part, are not addressed by past EE programs.
- Approximately one-quarter of housing units in the SMUD service area are multifamily (i.e. triplexes, or more dwelling units per housing structure).

Two options for Multifamily property owners to participate in SMUD's EE programs.

Option #1: Prescriptive MF Rebates

- Specific rebates for specific eligible measures
- CFL Hard Wired fixture -- \$30 rebate per fixture
- Packed terminal AC & HP --\$100 rebate
- Central HVAC-14.5 SEER level--\$400 rebate

Option #2: Performance MF Rebates

- Specific rebates for specific achieved performance level
- 10% improvement over existing conditions-- \$300 per MF unit
- \$30 increase in rebates for 1% increase in EE levels
- 11% improvement over existing conditions-- \$330 per MF unit
- Windows retrofit is the driver (2 measures are required)

2008-2009: Prescriptive MF rebates only (Act I)--Results

- Prescriptive MF Rebates (2009 results)
- Number of projects – 352 apartment complexes (or 7,254 MF units)
- Budget (total) – \$4,073,000
- Incentives – \$3,800,000
- GWh savings – 12.7
- MW savings – 1.64
- Cost Effectiveness: 4.67 levelized cents per KWh
- Mostly Lighting retrofits
- Contractors driven program

Performance MF Rebates (2010 -- 3/31/2012) (Act II)– ARRA funded program

- Funded by ARRA grant (Federal Stimulus)
- Number of projects –47 apartment complexes (2,513 MF units)
- Comprehensive retrofits (20% improvement min.)
- Budget (total) – \$7,273,000
- Incentives – \$6,800,000
- GWh savings – 12.2
- MW savings – 12.4
- Cost Effectiveness: about 15 levelized cents per KWh
- Since funded by federal stimulus funds, everything was outsourced
- Davis Bacon & CA Prevailing Wage requirements
- Unprecedentedly high incentive levels: \$2,300 for 20% energy improvement (\$115 per 1% improvement) and then \$60 per additional 1% improvement in energy efficiency

Post Federal Grant MF program-SMUD \$\$ (from 4/1/2012– present) --Act III

- SMUD's staff administers the program (in-house labor)
- Both Performance and Prescriptive MF rebates are being offered (options– performance based incentives were higher)
- Two separate & different measures (windows replacement is the most popular measure) and HERS II rater analysis were required for performance based program.
- Incentives are paid directly to the property owners (based upon 100 percent completion of construction)
- No Davis Bacon & CA Prevailing Wage requirements
- Substantially lowered rebates– in 2015, \$30 per 1% improvement per unit (minimum 10% improvement in KWh consumption)
- KWh savings only– no therm savings
- Smaller annual goal --reduced to 750 MF units retrofitted
- SMUD relies on HERS II ratters to complete energy audits pre- and post-installation (incentive \$80 per unit—lower level)
- Cost Effectiveness improved to about 8 levelized cents per KWh

For More Information & Questions?

- Misha Sarkovich
- MF Program Manager
- Visit www.SMUD.org
- (search under “multifamily”)



Lessons Learned: Sacramento

- The program evolved over time from prescriptive rebates in a contractor-driven program, to a scaled-down approach with smaller rebates and incentives.
 - Had a federal grant that provided 50 cents per KWh in savings. It was a performance-based program and expensive to run. Upgraded 2,500 units in 47 buildings.
 - Now the program provides an incentive of \$30 per 1% KWh improvement in energy savings. Larger projects don't receive a higher rebate even though the absolute energy savings are larger than for smaller projects, which helps the program's cost-effectiveness.
- Incentives are paid to the property owner regardless of whether the owner or tenants pay the electric bills directly.
 - Property owners are paying for the project and investing in the long-term improvements of their building (e.g. investing in energy efficient windows).

Program Experience:

Elizabeth Terry, National Grid
Margaret Kelly, Eversource

Mass Save Program, Massachusetts



Mass Save Multifamily Program Better Buildings Peer Exchange Call May 14, 2015



MASS SAVE® IS
BROUGHT TO YOU BY:



**Elizabeth Terry, National Grid
Margaret Kelly, Eversource**



ACEEE Best Practices: Massachusetts on a strong track

ACEEE Best Practice	Massachusetts has...	Possible Enhancement...
Provide a “one-stop-shop” program service	MMI provides a common point of contact and facilitates hand-offs	Provide project consultants
Incorporate on-bill repayment or low-cost financing	HEAT loan Mass Save Financing C&I	On-bill financing
Integrate direct install and rebate programs	Both are available through Mass Save	Continue to streamline transitions
Streamline rebates and incentivize in-unit measures to overcome split incentives	In-unit measures are provided	Mitigate remaining dichotomy between Res/CI offers
Provide escalating incentives for greater savings achievement	Stacking of incentives is allowed	Performance-based path
Target incentives for affordable housing	Provided through LEAN	Moderate income offers



Contact Info

Margaret Kelly
Senior Energy Engineer
Eversource

Elizabeth H. Terry
Senior Program Manager
national**grid**
Waltham, MA

Program Highlights: Massachusetts

- Multifamily is just one program available to Massachusetts residents.
 - The multifamily program is available to any facility with 5+ units.
 - The program includes both in-unit and common area interior and exterior upgrades, including energy efficient lighting, insulation, low-flow shower heads, and programmable thermostats
- The Mass Saves program is on track for implementing many of the best practices in energy efficiency programs outlined by the American Council for an Energy-Efficient Economy (ACEEE). Next steps include:
 - Bringing in consultants to help building owners decide on project measures
 - Providing on-bill financing
 - Trying to integrate the direct install and rebate programs
 - Improving communication flow internally to connect the in-unit and common-area measures to improve customer experience.
 - Exploring the possibility of moving to a performance based incentive program
 - Implementing incentives for affordable housing

Discussion Questions

- What approaches has your organization used to generate demand for energy upgrades at multifamily buildings?
 - What is most effective? What hasn't worked well, and why?
- What are useful ways to tackle the split incentives for energy upgrades between multifamily building owners and tenants?
- What other challenges has your organization had with marketing/outreach to multifamily properties?
 - How have you addressed those challenges?
- Other questions/issues related to generating demand at multifamily properties?

Discussion Highlights: Multifamily Energy Efficiency Outreach

- **The multifamily market is very diverse.** For example, affordable housing has proved to require more hand-holding and financial support than others, and not all properties have split incentives.
- **Prepare for customers to come back with questions;** create capacity to follow-up immediately. A good first impression establishes a positive on-going relationship.
- **Try to keep everything simple** so property owners can participate with very little hassle.
- Feature success stories that both the property owner and contractor can promote.
- **Effective tools to sell multifamily energy upgrades depend on the decision-maker:**
 - If the tenant is the decision maker, market immediate outcomes of upgrades relevant to the tenant, including reduced noise between units, noticeably enhanced comfort, and reduced energy bills.
 - If the owner is the decision maker, focus on the enhanced marketability of the units, such as improved aesthetics by installing new window treatments.
- **Connect with existing local housing organizations.** For example, SMUD experienced early wins by working closely with the public housing authority to retrofit their units during the ARRA-funded program.

Discussion Highlights: Experience with Multifamily Outreach

- **Use of benchmarking data to generate high-consumption leads:**
 - Mass Save has used benchmarking in the low-income multifamily program, but not in the incentivized multifamily program.
 - Rhode Island currently has a benchmarking pilot, and is working with New Ecology to determine how to prioritize work.
- **Working with condo owners:**
 - Connect with the condo board to address the common areas, and send letters to unit owners for in-unit upgrades.
 - Outreach to unit owners is challenging, and Mass Save only saw seeing a 30% sign-up rate, even with large incentives.
 - National Grid has had success connecting with the condo market by becoming a sponsoring member of a New England condo association chapter. By sponsoring the chapter, they have developed relationships with property managers and other chapter members that have pre-established outreach avenues.
- **Experience reaching the low-income properties:**
 - SMUD's low-income multifamily program, in place since 2006, has saturated the market with a heavy focus in lighting, and is now moving to upgrading windows.
 - In Wisconsin, 40% of the low-income market is saturated with direct install, and they are now transitioning to other measures.

Thank you!

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