
October 13, 2016

*Call Slides and Discussion Summary*
Agenda

- Agenda Review and Ground Rules
- Opening Polls
- Brief Residential Network Overview
- Featured Speakers
  - Stefen Samarripas, Local Policy Analyst, American Council for an Energy Efficient Economy (Network Member)
  - Raj Casper, Assistant Training Center Director, Community Housing Partners
  - Darren Port, Building Energy Codes Manager, Northeast Energy Efficiency Partnerships (Network Member)
- Discussion
  - What opportunities can working with multifamily and rental properties offer for energy efficiency programs?
  - What challenges has your program encountered when working with renters and/or property owners?
  - What strategies have helped your program overcome challenges and improve outreach to renters and property owners?
  - What other questions or comments do you have about overcoming split incentives and working with renters and property owners?
- Closing Poll and Upcoming Call Schedule
Better Buildings Residential Network: Connects energy efficiency programs and partners to share best practices and learn from one another to increase the number of homes that are energy efficient.

Membership: Open to organizations committed to accelerating the pace of home energy upgrades.

Benefits:
- Peer Exchange Calls 4x/month
- Tools, templates, & resources
- Recognition in media, materials
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- Residential Program Solution Center guided tours

Commitment: Provide DOE with annual number of residential upgrades, and information about associated benefits.

For more information or to join, email bbresidentialnetwork@ee.doe.gov, or go to energy.gov/eere/bbrn and click Join
Best Practices: American Council for an Energy Efficient Economy (ACEEE)
Reaching More Residents: Opportunities for Increasing Participation in Multifamily Energy Efficiency Programs

Lauren Ross, Michael Jarrett and Dan York

Stefen Samarripas
Local Policy Analyst, ACEEE
October 13, 2016
Presentation Overview

• Introduction to ACEEE
• Multifamily Market Overview
• Research Objectives
• Research Results
• Best Practices for Multifamily Programs
American Council for an Energy-Efficient Economy (ACEEE)

- Nonprofit advancing energy efficiency through research, policy, and technical assistance
- Policy program working at national, state, and local levels
- Local policy work:
  - City Energy Efficiency Scorecard & Self-Scoring Tool
  - Projects focused on energy efficiency in multifamily housing, community resilience and energy affordability
  - Technical assistance to local governments, utilities and community organizations
  - Local Policy Toolkit, policy calculator, and best practice research
  - www.aceee.org/portal/local-policy
The Multifamily Market

Total Occupied Housing Units
115,852,000

Multifamily
27,992,000
(24%)

Single-family
80,942,000
(70%)

2-4-Unit Buildings
9,084,000
(32%)

5-plus-Unit Buildings
18,908,000
(68%)

Owners (condos/co-ops)
1,374,000
(15%)

Renters
7,710,000
(85%)

Owners (condos/co-ops)
2,198,000
(12%)

Renters
16,710,000
(88%)

Non-subsidized renters
6,294,000
(82%)

Subsidized Renters*
1,176,000
(15%)

Non-subsidized renters
12,663,000
(76%)

Subsidized Renters*
3,340,000
(20%)
Challenges to Participation in Multifamily Programs

- Split Incentives
- Time and Resource Constraints
- Complex Decision-Making Structures
- Marketing and Outreach
Research Objectives

- Compile participation and other program-level data
- Identify best practices to increase participation
- Provide useful data that will assist stakeholders
Program Comparison: Participation

- Annual participation: 1,724 units to 54,198 units
  - 1% to 26% of the estimated eligible customer base
- Cumulative participation: 25–50% for some programs
- Data limitations
Program comparison (slide 1 of 4)

Average per-unit savings

- BayREN
- Con Edison
- DCSEU
- National Grid (RI)
- National Grid (MA)
- Puget Sound Energy (PSE)
Program comparison (slide 2 of 4)

% Served annually

- BayREN
- Con Edison
- DCSEU
- National Grid (RI)
- National Grid (MA)
- Puget Sound Energy (PSE)
Program comparison (slide 3 of 4)

Annual Participation

- BayREN
- Con Edison
- DCSEU
- National Grid (RI)
- National Grid (MA)
- Puget Sound Energy (PSE)
Program comparison (slide 4 of 4)

Budget

BayREN
Con Edison
DCSEU
National Grid (RI)
National Grid (MA)
Puget Sound Energy (PSE)
Best Practices

1. Simplify and Streamline Access to Program and Services
   • Integrate opportunities for on-bill or other low-interest financing

2. Target Building Owners and Managers
   • Owners and managers are the key multifamily decision-makers

3. Tailor Marketing and Outreach to Specific Segments of the Multifamily Market
   • Understand the motivations, timelines and challenges of the sector you target
Best Practices

4. Partner with State and Local Housing Organizations to Market and Deliver Programs
   • Program incentives should complement those other organizations offer

5. Partner with Trade Allies to Market Programs
   • Trade allies know many multifamily owners and managers

6. Deliver Effective Messages that Demonstrate Clear Value with Actionable Guidance
   • Market the full range of non-energy benefits
Questions

Stefen Samarripas
ACEEE Local Policy Analyst
http://aceee.org/multifamily-project

Relevant Publications:
- *Reaching More Residents: Opportunities for Increasing Participation in Multifamily Energy Efficiency Programs* (ACEEE)
- *Apartment Hunters: Programs Searching for Energy Savings in Multifamily Buildings* (ACEEE)
- *Program Design Guide: Energy Efficiency Programs in Multifamily Affordable Housing* (Energy Efficiency for All)
- *PACE Nation Case Studies*
Unique considerations for multifamily housing:

- **Marketing and Outreach:** Understanding the different sectors and their unique needs will go a long way to creating marketing messages that appeal to property owner timelines, and motivations. For example, owners may only be able to invest in upgrades during capital cycles.

- **Simplify:** Create a one-stop-shop with a single representative contact that guides applicants through the process to minimize the hassle of multiple applications and requirements.

- **Partnerships:** Get to know the incentive providers and financing opportunities in your area to maximize available funding for your program. Additionally, partnerships with housing authorities can help programs reach building owners and managers.
Lessons Learned: Community Housing Partners (CHP)
CHP SMART Homes
Introduction to Community Housing Partners (CHP)
SMART Homes Program Overview
Program Goals
Highlights
Results
Positive Takeaways
Opportunities for Improvement
Current State of Program
▲ Affordable housing non-profit based in Christiansburg, VA
▲ Footprint in six states
▲ Three primary business segments:
  ▶ Real Estate Development
  ▶ Energy Solutions
  ▶ Housing Services

www.communityhousingpartners.org
Program Overview

- Program piloted at three CHP properties in 2014
- SMART – Saving Money and Resources Together
- Behavior-based education program for residents
Achieve energy consumption reductions across our portfolio through behavior change

Develop effective curriculum to reach our residents

Measure success through benchmarking energy data of units
Green Tenant Education

RESIDENTIAL ENERGY USE

Now That's SMART
Results

Average Energy Reduction after Education

<table>
<thead>
<tr>
<th>Property</th>
<th>Percentage Energy Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property 1</td>
<td>5.1%</td>
</tr>
<tr>
<td>Property 2</td>
<td>7.9%</td>
</tr>
</tbody>
</table>
Activities and video content worked well for kids

Adults were more motivated by financial rewards and free items
Opportunities for Improvement

- Improve internal communication between departments to coordinate program implementation
- Conduct hands-on walkthroughs of units
- Obtain more utility waivers from residents
Implementing a modified youth summer program at one property

Not currently tracking energy usage in relation to education received

Partnering with Virginia Center for Housing Research at Virginia Tech to look at effectiveness of resident education on energy-related behaviors
The CHP pilot featured educational materials targeted at both adults and children, free stuff and gift cards for participation, and had tenants sign utility waivers to access energy use data.

Lessons Learned:
- Educational materials do not compare to a walk through to pinpoint opportunities for energy savings.
- For deeper energy savings, programs can require owners to participate in direct install in units to access support for upgrades in common areas.
- Obtaining signed utility waivers is paramount. Without data, pilots are unable to accurately estimate the effects of their efforts.
Tips and Tools: Northeast Energy Efficiency Partnerships (NEEP)

Darren Port
Building Energy Code Manager

October 13, 2016
About NEEP

Mission
Accelerate energy efficiency as an essential part of demand-side solutions that enable a sustainable regional energy system

Approach
Overcome barriers and transform markets via Collaboration, Education and Enterprise

Vision
Region embraces next generation energy efficiency as a core strategy to meet energy needs in a carbon-constrained world

One of six regional energy efficiency organizations (REEOs) funded by the US Department of Energy (US DOE) to link regions to US DOE guidance, products and programs
What to Look for Before Renting


Nearly all renters pay their own energy bills, but few have options relating to the efficiency and quality of the heating and cooling systems, appliances, and windows of their rental. However, there are many steps renters can take to save and manage energy. Just because you don’t own your home doesn’t mean comfort, energy and cost savings cannot be achieved.

Energy spending per square foot in rented apartments can run 76 percent higher than in owner-occupied single family homes. 1

Looking for a rental property? A few key indicators can help you assess the efficiency of the rental. Below is information on “What to Look For”, and a checklist of features to investigate “Before You Sign” when touring a potential new home or apartment. The checklist will assist you in understanding the amount of energy you may use and ultimately pay for.

Looking to cut energy bills in your current rental? It’s natural to think that it’s not worthwhile to invest in energy efficiency improvements if you don’t own your home. However, there are steps you can take that pay off within a year or two and improvements that you can also bring with you to your next home. Use the “Simple Low-Cost and No-Cost Measures” and “Utility Program Offerings” sections at the end of this guide to reduce your bills quickly.

What to Ask and Look for Before Renting

Saving money and energy can be easy if you know what to look for. Thoroughly investigate the many energy use aspects of a potential rental before you sign a lease.

- Insulation
- Utility Costs
- Meter Info
- Windows
- HVAC Systems
- Draftiness
- Water Heating
- Appliances
- Thermostat Control
What to Ask and Look for Before Renting

Saving money and energy can be easy if you know what to look for. Thoroughly investigate the many energy use aspects of a potential rental before you sign a lease.

- Utility Costs
- Insulation
- Meter Info
- Windows
- Draftiness
- HVAC Systems
- Appliances
- Water Heating
- Thermostat Control
# Before You Rent Checklist

<table>
<thead>
<tr>
<th>System</th>
<th>Notes</th>
<th>System</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metering</strong></td>
<td></td>
<td><strong>Heating Equipment</strong></td>
<td></td>
</tr>
<tr>
<td>Individually Metered</td>
<td></td>
<td>Age of System</td>
<td></td>
</tr>
<tr>
<td>Master Metered</td>
<td></td>
<td>Type of Fuel</td>
<td></td>
</tr>
<tr>
<td><strong>Utility Cost</strong></td>
<td></td>
<td>Equipment Location</td>
<td></td>
</tr>
<tr>
<td>Landlord Pays Utilities</td>
<td></td>
<td>Water Heating Equipment</td>
<td></td>
</tr>
<tr>
<td>Renter Pays Utilities</td>
<td></td>
<td>Age of Water Heater</td>
<td></td>
</tr>
<tr>
<td><strong>Type of Utilities</strong></td>
<td></td>
<td>Age of System</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td></td>
<td>Equipment Location</td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td></td>
<td></td>
<td><strong>Appliances – Age &amp; Condition, ENERGY STAR?</strong></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>Oven</td>
<td></td>
</tr>
<tr>
<td>Electric</td>
<td></td>
<td>Dishwasher</td>
<td></td>
</tr>
<tr>
<td>Internet/Cable TV</td>
<td></td>
<td>Refrigerator</td>
<td></td>
</tr>
<tr>
<td><strong>Thermostat Control</strong></td>
<td></td>
<td>Washer/Dryer</td>
<td></td>
</tr>
<tr>
<td>Programmable Thermostat</td>
<td></td>
<td></td>
<td><strong>Notes:</strong></td>
</tr>
<tr>
<td>In-Unit Thermostat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hallway Thermostat</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Before You Rent Checklist

<table>
<thead>
<tr>
<th>System</th>
<th>Notes</th>
<th>System</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Infiltration &amp; Insulation</strong></td>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Building Insulated/Air Sealed</td>
<td></td>
<td>Ample Outlets</td>
<td></td>
</tr>
<tr>
<td>Unit Insulated/Air Sealed</td>
<td></td>
<td>Cable/TV/Phone Connection</td>
<td></td>
</tr>
<tr>
<td>Air Leakage – Inspect for drafts &amp; gaps</td>
<td></td>
<td># of light fixtures, type of bulb – CFL, LED</td>
<td></td>
</tr>
<tr>
<td>Inspect Fireplace Damper</td>
<td></td>
<td>Natural Light</td>
<td></td>
</tr>
<tr>
<td><strong>Windows</strong></td>
<td></td>
<td><strong>Energy Ratings / Certifications:</strong></td>
<td></td>
</tr>
<tr>
<td>Single Pane</td>
<td></td>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>Double Pane</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triple Pane or more</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storm Windows</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon Monoxide and Smoke Detectors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Extinguisher</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NEEP Multifamily Resources

NEEP Resources:

• NEEP Multifamily Retrofit Online Resource Center
• Multifamily Program Matrix
• Renter’s Guide to Green Real Estate

Coming Soon:
• Regional Energy Efficiency Organization (REEO) collaborative report on barriers and opportunities in multifamily retrofits
Save the Dates!
NEEP High Performance Schools Summits

OCTOBER 21
On October 21 at Rhode Island College, join superintendents, school business officials, architects, engineers, facility and energy managers, and other educational stakeholders to share lessons learned and best practices for successful school improvement projects.

Agenda, Logistics & More >>

NOVEMBER 9
Join architects, engineers, facility and energy managers, utility program administrators, school business officials and others for an interactive summit focused on exploring the multiple benefits of high performance schools and making the business case for your next school project.

Agenda, Logistics & More >>

Home Energy Labeling Index (HELIX) Summit
Boston - November 10
THANK YOU!

Darren Port

91 Hartwell Avenue   Lexington, MA 02421
www.neep.org
Although many energy upgrades are beyond the reach of a tenant, there are a few ways **tenants can push energy efficiency**: 

- Bringing an energy checklist to an initial viewing can motivate landlords to make energy efficiency upgrades to be competitive with other rentals.
- Although the housing market can be competitive in larger urban areas, the willingness of landlords to run through an energy checklist may reflect their responsiveness and concern for tenant wellbeing throughout a lease.
- Tenants can band together to influence building management to implement deeper upgrades.
Explore resources related to engaging rental property tenants and owners in energy efficiency:

- Explore the Program Design & Customer Experience – Assess the Market handbook for understanding how to engage and motivate this market sector.

- The Southeast Multifamily Market Assessment explores the opportunity to capture energy savings in this share of the region’s housing market.

- Learn about Boulder, Colorado’s SmartRegs initiative to help the city meet carbon reduction goals and improve the quality, safety, & marketability of the rental housing stock.

- Consider Harvard University’s research on the need and potential for Reducing Energy Costs in Rental Housing.

- While you’re there, see the latest Proven Practices post on Leveraging Partners to Provide Training and Develop a Skilled Workforce.

- The Solution Center is continually updated to support residential energy efficiency programs—member ideas are wanted!
Do you have new staff in your organization that might benefit from Peer Exchange Calls?

Network Members, such as VEIC, inform their new employees of upcoming calls to spread the knowledge and grow the network!

New staff can sign up to receive upcoming call information. To do so, email bbresidentialnetwork@ee.doe.gov, or visit energy.gov/eere/bbrn and click Join.
We hold one Peer Exchange call the first four Thursdays of each month from 1:00-2:30 pm 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:

- November 10: Do You Hear Me Now? Communicating the Value of Non-Energy Benefits (101)
- November 17: Diversifying Funding Sources and Building New Revenue Streams (201)
- November 24: No Call – Thanksgiving
- December 1: America’s Next Top Energy Model: Tools and Best Practices (101)

Send call topic ideas to peerexchange@rossstrategic.com
See the Better Buildings Residential Network Program website to register
Addenda: Attendee Information and Poll Results
Call Attendee Locations
Call Attendees: Network Members (1 of 2)

- American Council for an Energy-Efficient Economy (ACEEE)
- AppleBlossom Energy Inc.
- Arlington County Government
- Center for Energy and Environment (CEE)
- City of Aspen Utilities and Environmental Initiatives
- City of Bellevue
- City of Charlottesville
- City of Chula Vista Conservation Section
- City of Fort Collins
- City of Kansas City
- City of Plano
- CLEAResult
- Cleveland Public Power
- Duke Carbon Offsets Initiative
- Efficiency Nova Scotia
- Energy Efficiency Specialists
- Fort Collins Utilities
- Fujitsu General America Inc.
- Group14 Engineering Inc.
- International Center for Appropriate and Sustainable Technology (ICAST)
- Michigan Saves
- Midwest Energy Efficiency Alliance (MEEA)
- Mitsubishi Electric Cooling and Heating
- Monroe County Environmental Quality and Sustainability
Call Attendees: Network Members (2 of 2)

- National Housing Trust/Enterprise
- New York State Energy Research and Development Authority (NYSERDA)
- Northeast Energy Efficiency Partnerships (NEEP)
- Stewards of Affordable Housing for the Future
- U.S. Department of Energy (DOE)
- Vermont Energy Investment Corporation (VEIC)
- Wisconsin Energy Conservation Corporation (WECC)
Call Attendees: Non-Members (1 of 3)

- Affordable Community Energy Services Company
- Alaska Housing Finance Corporation
- Association for Energy Affordability
- BA Consult
- Bam Superior Solutions
- BKi
- Blue Ridge EMC
- BRANZ
- Brendle Group
- Build It Green
- California Public Utilities Commission
- Cascade Natural Gas
- City of Bloomington Utilities
- Codman SQ NDC
- Columbia Water and Light
- DC Sustainable Energy Utility
- Delaware Division of Energy and Climate
- Energy Resources Group
- Enhabit
- FMC Facility Management Consultores
- Focus on Energy
- Franklin Energy Services
- GoodCents
- Groundswell
- Hawaii Energy
- Holy Cross Energy
Call Attendees: Non-Members (2 of 3)

- United States Housing and Urban Development
- ICF International
- Illume Advising LLC
- LINC Housing
- Lincoln Electric System
- Mercy Housing
- Minnesota Pollution Control Agency
- MPower Oregon
- Oberlin Municipal Light & Power
- Opportunity Council/Community Energy Challenge
- OR Dept of Energy
- Preferred Properties of California
- Resynergy Systems
- Retrofit Baltimore-Civic Works
- Richmond Region Energy Alliance
- Sarasota County
- Seattle City Light
- Snohomish PUD
- Snugg Home
- South Burlington Energy Committee
- Sparhawk Group
- SPEER
- Sunowner Inc
- Sustainable Connections
- The Oberlin Project
- The Renaissance Collaborative
- Tennessee Valley Authority
- UpGrade Athens County
- U.S. EPA
Call Attendees: Non-Members (3 of 3)

- Utah Governor's Office of Energy Development
- Ventacity Systems, Inc
- VHR+a
- WA State Energy Office
- WSU Energy Program
Opening Poll

Which of the following best describes your organization’s experience with engaging rental property tenants and owners in energy efficiency?

- Some experience/familiarity – 50%
- Limited experience/familiarity – 23%
- Very experienced/familiar – 19%
- No experience/familiarity – 7%
- Not applicable – 1%
Closing Poll

- After today's call, what will you do?
  - Seek out additional information on one or more of the ideas – 76%
  - Consider implementing one or more of the ideas discussed – 16%
  - Make no changes to your current approach – 8%
  - Other (please explain) – 0%