



**Better Buildings Residential Network Peer
Exchange Call Series: *Capitalizing on Multi-
benefits of Energy Upgrades at Multifamily
Housing (301)***

December 10, 2015

Call Attendee Locations



Call Participants: Residential Network Members

- American Council for an Energy-Efficient Economy (ACEEE)
- Arlington County
- Austin Energy
- Boulder County
- City of Bellingham
- Connecticut Green Bank
- DC Sustainable Energy Utility
- Efficiency Maine Trust
- Elevate Energy
- Greater Cincinnati Energy Alliance
- GRID Alternatives
- Institute for Market Transformation
- International Center for Appropriate & Sustainable Technology
- National Housing Trust
- Performance Systems Development
- Puget Sound Energy
- Southeast Energy Efficiency Alliance (SEEA)
- Southface Energy Institute
- Vermont Energy Investment Corporation
- Yolo Housing

Call Participants: Non-Network Members

- AE Building Systems
- Apartment Association of Greater Orlando
- Association for Energy Affordability
- BlueGreen Alliance
- Bonneville Power Administration
- Center for Sustainable Communities
- City of Orlando
- City of Philadelphia
- City of Seattle
- Clearesult
- Debra Little Sustainable Design
- Dorgan Architecture & Planning
- Emerald Cities Seattle
- Fox Energy Specialists
- Franklin Energy Services
- Fruitfull Energy
- Florida Solar Energy Center
- Holy Cross Energy
- Department of Housing and Urban Development
- Hunsi group Inc.
- LINC Housing
- La Plata Electric Association
- MPower
- Nexant
- Okaloosa Gas District
- Opportunity Council
- Opportunity Link
- Snohomish PUD
- Soneter
- Southwest Minnesota Housing Partnership
- Sparhawk Group
- Stanford University
- TRC Energy Services
- Volunteers of America

Agenda

- Agenda Review and Ground Rules
- Opening Polls
- Brief Residential Network Overview
- Featured Speakers
 - **Lisa Baker**, Yolo County Housing (*Network member*) and New Hope Community Development Corporation
 - **Rachel Cluett**, American Council for an Energy-Efficient Economy (ACEEE) (*Network member*)
 - **Esther Toporovsky**, Enterprise Community Partners | Green Communities
- Discussion
 - What are your organization's experiences with multiple benefits of multifamily energy upgrades?
 - What types of benefits have you seen?
 - Which benefits have been most important for making the “business case” for energy upgrades?
 - Has your organization used a wide range of benefits to make a better business case for these investments?
 - What are key challenges or barriers to capturing different benefits from multifamily energy upgrade projects?
 - What strategies are useful to overcome those challenges?
 - Other questions/issues related to capitalizing on benefits of multifamily energy upgrades?
- Closing Poll and Upcoming Call Schedule

Opening Poll #1

- Which of the following best describes your organization's experience with multiple benefits of multifamily energy upgrades?
 - Some experience/familiarity – **43%**
 - Very experienced/familiar – **37%**
 - Limited experience/familiarity – **11%**
 - No experience/familiarity – **6%**
 - Not applicable – **3%**

Opening Poll #2

- What non-energy benefits have you seen from energy upgrade projects at multifamily properties?
 - Lower maintenance and repair costs – **73%**
 - Lower water and sewer bills – **62%**
 - Health and indoor air quality benefits – **58%**
 - Reduced vacancy and turnover – **35%**
 - Other (please explain) – **8%** (Enhanced security due to improved lighting in the parking lot)

Better Buildings Residential Network

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

Program Experience:

Lisa Baker

**CEO, Yolo County Housing
and**

**Executive Director, New Hope
Community Development Corporation**



Yolo Housing

Capitalizing on Multi Benefits of Energy Upgrades in Multi-Family Housing

Many Different Ways to Access and Capitalize on Benefits


Multi-family developers and managers tend to focus on **financing** and bottom line. Some mission driven organizations may also focus on **greenhouse gas reduction** and legacy projects.

Both of these are important but tend to miss some strategic value -

1. finding the sweet spot between financing, **long term operations cost reduction** and minimal system operations needs;
2. focusing on low cost, **self-sustaining features** often deliver better performance over the long run.

Many Different Ways to Access and Capitalize on Benefits

Often when we talk about energy reduction, we are focused on buying new systems, new gadgets and financing construction. There are important. But there are many different ways to think about MF housing and energy that reap significant rewards for small or no capital outlay. Here are some things to keep in mind:

- ❑ Think about Company/Agency operations separately from housing unit operations - every  saved on the company side is a real dollar in the pocket, especially in subsidized properties where there is no subsidy for common areas or corporate operations.
- ❑ Think about end users - no amount of fancy systems will deliver performance if the customers, managers and maintenance staff aren't educated, engaged and willing

The solution

Engage your people - **Educate**
and find ways to **Reward**
Performance and then **Move**
into Larger **Systems**



Examples 2008 - 2014



How it works

Step 1

Educate & Challenge

- ★ Staff education led to Move to Green cleaning products and **70% cost reduction** in materials
- ★ Diversion of scrap lumber to co-generation plant - **no dump fees and electricity generation: win-win**
- ★ Easy to program thermostats - **save over 100 annual maintenance calls** and better energy use
- ★ Educated residents about H₂O. Achieved **34% reduction without retrofits**

Step 2

Think Different

- ★ It's not just about heating, A/C and lights. Think IT/IS, cloud storage, just in time delivery for inventory and standardized, efficient inventory
- ★ Think about the little things - retractable clotheslines in the bathtub.
- ★ high efficiency stackables in the laundry room (more units, better ADA, energy/water reduction)
- ★ LED lighting in offices and in unit kitchens/baths, typically fixtures under management control

Step 3

Go Big

- ★ Once sustainable thinking is embedded in the organization, take the big step - retrofits, acquisition/rehab and new construction
- ★ YCH - **replaced 1,786 single pane windows** with ultra high efficiency windows paired with other upgrades
- ★ Followed on by an **acquisition/rehab of HUD multi-family structured as an energy retrofit** instead of standard repositioning

Case Study - IT/IS savings - energy and cost

Original YCH Infrastructure

8 Routers
8 Switches
7 Backup Batteries (UPS)
4 Phone Servers
1 Server
1 Payroll Server
1 Email Server
1 File / Database Server
1 Blackberry Server
2 Tape Backup Systems



(Initial Cost: \$300,000 for phone system, an additional \$150,000 cost for computer systems and \$28,000 per year for phone maintenance.)

Traditional Model – Needs and costs if we did not convert to SAS

8 Routers
8 switches
8 Backups
3 File/DB Server
4 Phone Server
1 Terminal Servers
48 Licensing Costs
1 Domain Server

Proposed Costs:\$171,800.00

Annual Costs: \$325.00 per user minimum (Total costs if we stayed with a traditional system would be about \$771,800 over 3 years with an additional \$17,875 in annual data fees and \$28,000 in phone service fees. Total traditional costs over 3 years: \$909,425, not counting KWH costs.)

Next Gen Model – Google Apps, cloud based payroll, SAS servers

1 Router
3 Switches
1 Battery
1 Database server

Costs:\$30,100.00

Annual Costs: \$50 per user

(Total costs approximately \$22,030 per year. Not counting KWH savings. total costs over 3 years: \$66,090)

2013 Estimated Total Kilowatt Savings, not including new power management devices, installation of timed lighting and elimination of an additional server: 10,265kwh per year (Savings of \$2,156 per yr at current average pricing)

Put it all Together



So, as you can see, in Multi-Family housing, you can capitalize on energy benefits in many different ways:

1. **Maintenance** cost savings - in terms of reducing work orders and different ways of doing business (like sending lumber to co-generation);
2. **Unit Operations** cost savings - like water use reduction, LED replacement lighting, switching to green cleaning products;
3. **Overall operations** cost savings - like using pooled purchasing to reduce costs and to drive green buying, looking at energy intensive uses in office space and in automation (such as cloud-based computing).
4. **Think whole system** - components fit together synergistically. You reap more benefits when you think about your entire business operations (the interconnection between people, employees and equipment. But also about equipment and operations). See example above: wrapping new exterior over existing is cheaper, and creates better insulation, along with new wider retrofit windows.

Presentation Highlights: Yolo County

- Engage, educate, and reward. Educate residents, funders, and your workforce through bottom-up approaches. Then you can move on to larger efforts, such as pooled purchasing/green buying.
- If you engage residents, they will care about energy efficiency, and work with you to cut down use. Combine potential penalties and incentives with education.
- Easily programmable thermostats cut down on maintenance calls from senior citizens. Great gadgets don't always deliver results if consumers don't accept them.

**Lessons Learned:
Rachel Cluett
Senior Research Analyst
American Council for an Energy-Efficient
Economy (ACEEE)**



Accounting for the Multiple Benefits of Multifamily Energy Efficiency

Rachel Cluett,

Senior Research Analyst, Buildings Program

Presentation for the Better Buildings Residential Network Peer Exchange

December 10, 2015

American Council for an Energy-Efficient Economy (ACEEE)

- ACEEE is a 501(c)(3) nonprofit that acts as a catalyst to advance energy efficiency policies, programs, technologies, investments, and behaviors
- 50 staff; headquarters in Washington, D.C.
- Focus on end-use efficiency in industry, buildings, and transportation
- Other research in economic analysis; behavior; energy efficiency programs; national, state, and local policy

Consumer resources: smarterhouse.org and greenercars.org



www.aceee.org

ACEEE's Multifamily Energy Savings Project

- Three-year project to improve the energy efficiency of multifamily housing nationwide
- Goal: Expand the number of utilities offering multifamily energy efficiency programs and increase spending and savings for these programs.
- Focus on building partnerships between the housing community, utilities, and state and local governments
- What we do:
 - Research
 - Technical Assistance
 - Utility Working Group

Upcoming/Ongoing Research:

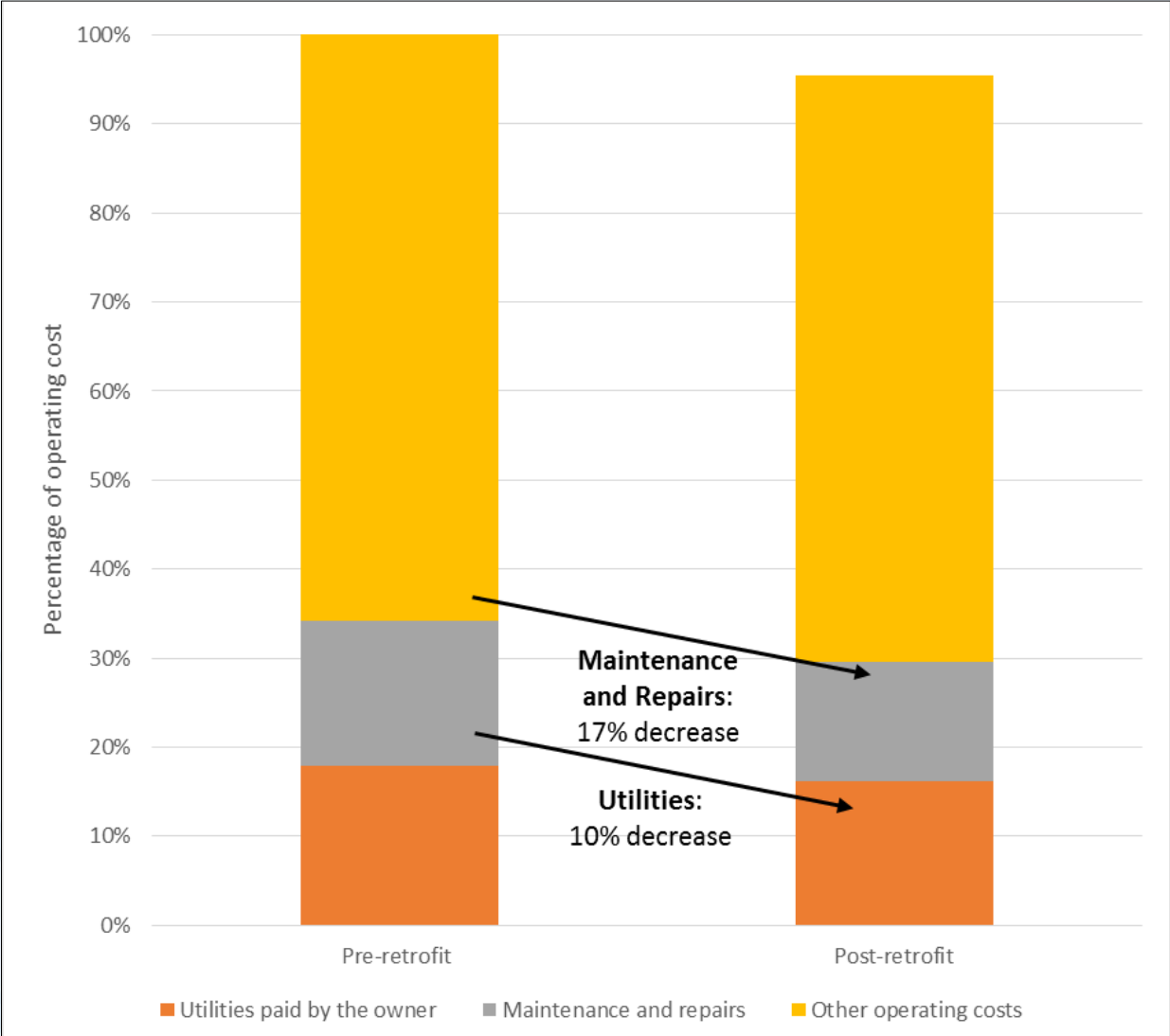
- Multiple benefits of MF energy efficiency
- Financing for MF energy efficiency
- MF and the Clean Power Plan

Multifamily benefits

Category	Benefit	Measure applies to	Value range (% of utility bill savings)
Resource	Reduced water and sewer costs	Faucet aerators, showerheads, clothes washers, dishwashers	Not available
Improved operations	Reduced need for lighting and equipment maintenance	Retrofit, lighting, equipment, and appliance programs	3–150%
Vacancy and turnover	Lower vacancy rates	Retrofit programs	100% (few examples)
Building improvement	Improved property value and durability	Retrofit programs	Property value: 10%. Durability: 18%

Source: Russell et al. 2015

Reduced maintenance costs



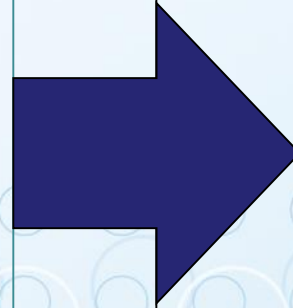
Reduced Vacancy and Turnover

Tenant Impact

- More comfortable
- More control over unit temperature
- Increased reliability of heating/cooling system
- Lower energy bills
- Less burdensome energy costs

Owner Impact

- Lower turnover rates
- Decreased vacancy rates



Reduced Vacancy and Turnover

Lower vacancy rates

NYSERDA case study

- Vacancy rate dropped from 17% to 2%

Higher net operating income

Elevate Energy case study

- Buildings had 4.8% higher rental income and 1.6% higher net operating income

Multifamily Cost-Effectiveness Screening

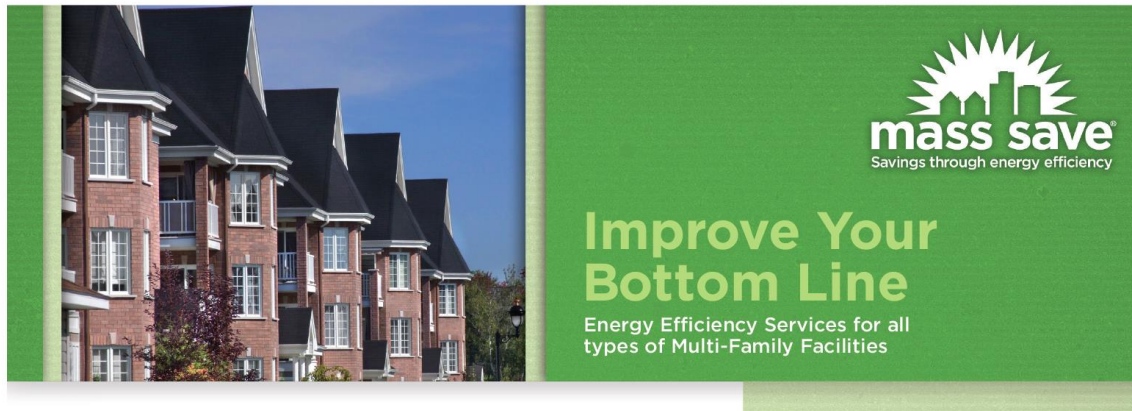
The problem:

Cost effectiveness tests include all the costs associated with a retrofit, but consider the energy savings as the only benefit

Participant Costs	Participant Benefits
Participant contribution to energy efficiency project	Energy savings Water and sewer savings Reduced operations and maintenance costs Increased tenant comfort Reduced vacancy rate

An imbalanced cost effectiveness test doesn't accurately assess whether programs are in the public interest

Marketing Multifamily Energy Efficiency



ENERGY EFFICIENCY MAKES \$SMART BUSINESS \$ENSE

Want to add value to your property, increase occupancy rates and retain valued tenants by lowering energy and maintenance costs? Our programs may help you gain greater financial control by providing incentives for eligible energy efficiency upgrades.

nationalgrid
HERE WITH YOU. HERE FOR YOU.

Rhode Island Multifamily Program

Reduce your tenants' energy costs and increase the value of your property.

There's no better way to increase the value and appeal of your condominium or apartment complex than with energy-efficiency upgrades – supplemented by valuable incentives from National Grid.

Keeping tenants happy and your building full.

Slowing down turnover and keeping your complex at capacity has a huge impact on your profitability. So does keeping a lid on maintenance and upgrade costs. With National Grid's Multifamily Program, you may be eligible for rebates that make it painless to accomplish all of that, and more. Thanks to your cost-effective upgrades, your tenants may enjoy lower energy bills, a greener complex and a more comfortable living environment.



ACEEE Resources

Cluett and Amann. **Multiple Benefits of Multifamily Energy Efficiency for Cost-Effectiveness Screening**, June 16, 2015, <http://aceee.org/multiple-benefits-multifamily-energy-efficiency>

Russell, Baatz, Cluett and Amann. **Recognizing the Value of Energy Efficiency's Multiple Benefits**, Dec 2, 2015, <http://aceee.org/research-report/ie1502>

Thank you!

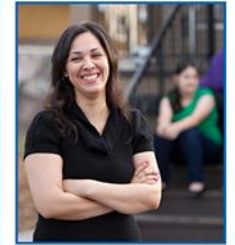
Rachel Cluett

Presentation Highlights and Clarifications: ACEEE

- When building owners pay for efficiency upgrades, they reap many benefits in addition to energy savings (reduced maintenance costs, lower vacancy rates, etc.). These benefits can be used to market upgrades to owners.
- The projects represented in the study are all market-rate housing, not subsidized housing.
- The distribution of benefits such as reduced maintenance costs between property managers, building owners, and tenants was not examined, but would be a good subject for future study, as would the difference in benefits for low-income housing.
- The second report explores how utilities have quantified and incorporated multiple benefits into project calculations.
 - Massachusetts has done a great job with this; other states use a placeholder (e.g., 10% add-on) to represent additional energy savings.

**Lessons Learned:
Esther Toporovsky
Senior Program Director
Enterprise Community Partners | Green
Communities**

Enterprise Multifamily Retrofit Toolkit



**Esther Toporovsky,
Senior Program Director**



Enterprise Decided to Take on Retrofitting



Enterprise's Green Commitments and Success

SOLUTIONS

60,000 + Units

- Deployed \$14 M in grants to provide Technical Assistance and Capacity for Energy Efficiency, Renewable, Resiliency

CAPITAL

3,000 + units

- Deployed \$35 M in short and long term green financing to partners across the country

POLICY & ADVOCACY

- Enterprise 16 MW White House solar commitment
- Enterprise Better Buildings Challenge T.A. and Financial Ally commitment

We Aggregated our Learning's to Create a Toolkit



Multifamily Retrofit Toolkit



How to Use the Toolkit

How to Use the Toolkit

This step-by-step process can be used in three ways:

Portfolio Approach - Assists you in developing an action plan to increase the efficiency of your portfolio through selective application of retrofits and related tools

Project Approach - Assists you in taking one project through a streamlined, cost effective, efficient retrofit process

Midway through process and/or near completion - Use as a toolkit at any point during the retrofit process in order to make smart and cost-effective decisions

The 9 Stages of the Retrofit Process with Resources

The resources provided here guide you through the stages of upgrading your portfolio or property. Each stage has specific directions with tools to assist you.

Location of the Toolkit

The documents, attachments and links referred to in this document can be found at:

www.enterprisecommunity.org/retrofittoolkit

The Toolkit Components

OVERVIEW OF THE MULTIFAMILY RETROFIT TOOLKIT

The Multifamily Retrofit Toolkit is composed of a variety of different parts – which are listed below. These resources can be found at www.enterprisecommunity.org/retrofittoolkit

Documents

The main toolkit is made up of four core documents:

- Step-By-Step Retrofit Process
 - Energy and Water Audit Protocol
 - Green Capital Needs Assessment Protocol
 - Frequently Asked Questions
-

Step-by-Step process

THE STEP-BY-STEP RETROFIT PROCESS



1 Review Portfolio



2 Secure Funding



3 Select Property



4 Select Audit Protocol



5 Select Auditor and Conduct Audit



**6 Determine Final Scope of Work and
Select Contractor to Complete Renovation**



7 Conduct Quality Assurance and Verification (QA&V)



8 Monitor Utility Use



9 Management, Operations and Maintenance

Includes Attachments to Guidelines and Worksheets

Attachments

Referenced within the documents are these supporting attachments:

- A** Green Capital Needs Assessment Summary Table
- B** On-Site Visit Guidelines
- C** Site Visit Preparation
- D** Potential Operations & Maintenance Problem Worksheet
- E** Inspection Worksheet
- F** Equipment Specifications Worksheet
- G** Utility Release Form
- H** Benchmarking Tools
- I** Diagnostic Testing Guidelines
- J** Energy & Water Analysis Guidelines
- K** Energy Modeling Reporting Requirements
- L** Energy Modeling Input Assumptions Table
- M** Integrated Pest Management Guidelines
- N** Quality Assurance & Verification Guidelines
- O** Financial Decision Tree
- P** Construction Flow Chart
- Q** Construction Management Checklist
- R** Property Retrofit Screener

Includes Links to Tools

Links

Referenced within the documents are links to important resources:

- ▶ [Database of Energy Efficiency & Renewables Incentives & Rebates](#)
- ▶ [Technical Assistance Provider Database](#)
- ▶ [Fannie Mae Green Refinance Plus Program](#)
- ▶ [Enterprise Utility Allowance Resource Guide](#)
- ▶ [National Center for Healthy Housing Resource Library](#)
- ▶ [Green Capital Needs Assessment Example](#)
- ▶ [Housing Partnership Networks \(HPN\) Group Buying Program](#)

Referenced within the documents are additional toolkits which support the Retrofit Process:

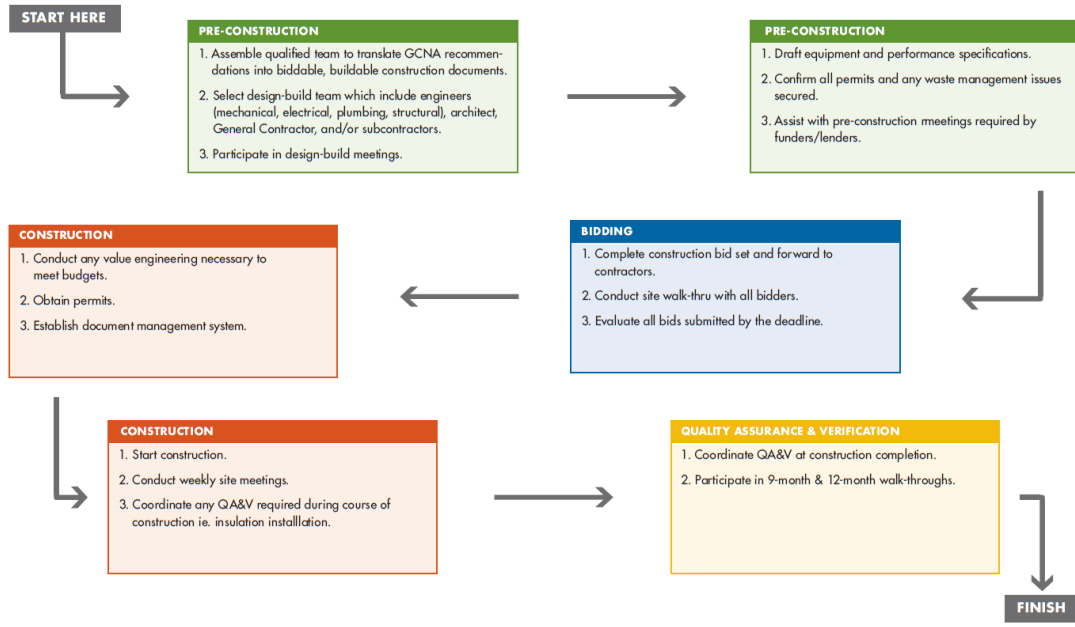
- ▶ [Resident Engagement Training in a Box](#)
- ▶ [Green Leader Toolkit](#)
- ▶ [Operations & Maintenance Training in a Box](#)

Includes FAQ's

- 1 What is a Green Capital Needs Assessment?**
.....
- 2 When is the optimal time to retrofit a building?**
.....
- 3 What if my building is individually metered?**
.....
- 4 How do I know which audit protocol to use?**
.....
- 5 How do I know which retrofit measures will be most cost-effective for a particular building?**
.....
- 6 How can a green retrofit improve the Indoor Air Quality (IAQ) and help create a healthier living environment for the residents?**
.....
- 7 What qualifications should an auditor have?**
.....
- 8 How much does an audit cost?**
.....
- 9 How can I create a plan to retrofit my whole portfolio over time?**
.....
- 10 What metric can I use to compare and rank multiple properties in a portfolio?**

Example of Tools

P GREEN RETROFIT CONSTRUCTION FLOW CHART



CONSTRUCTION MANAGEMENT CHECKLIST

PRE-CONSTRUCTION SERVICES

- 1 Help identify the experts needed to translate GCNA & Energy Audit recommendations into construction documents ie design-build General Contractor and/or mechanical, electrical, plumbing, structural engineers
- 2 Help prepare for and participate in design-build meetings
- 3 Review plans and specifications
- 4 Assist owner in negotiations with General Contractor (GC) and with contract preparations
- 5 Prep meetings Owner, Consultants and General Contractor (GC)
- 6 Analyze development schedule
- 7 Review all Contract Documents for consistency and accuracy
- 8 Coordinate and confirm that all necessary Permits are secured in a timely manner
- 9 Identify any special waste management issues and ensure that GC and subs are in compliance
- 10 Assist Owner coordination with pre-construction meetings as required by all funders/lenders

CONSTRUCTION SERVICES

- 1 Establish document management system
- 2 Evaluate proposed revision/upgrades
- 3 Coordinate work of other consultants ie structural engineer
- 4 Monitor testing and inspection
- 5 Review schedule and monitor progress
- 6 Attend job meetings and facilitate resolution of issues
- 7 Maintain records and Files
- 8 Draft regular progress reports and meeting minutes
- 9 Review and revise as necessary Payment Applications
- 10 Review and negotiate Change Order Requests
- 11 Participate in and/or coordinate punchlist walk

CONSTRUCTION CLOSE-OUT SERVICES

- 1 Generate punchlist and make sure items are addressed
- 2 Assist Operations & Maintenance, Warranty manuals and Project Manager O&M training
- 3 Assist QA&V, systems testing
- 4 Prepare written summary reports
- 5 Participate in 9-month and 12-month walk-throughs

Retrofit Case Study - MA

Winn Companies

- Property: Village at Brookline
- Location: Brookline, MA
- Units: 307 Affordable Units
- Year Built: 1978
- Property description: Three mid-rise buildings 7-9 stories high, 2-3 story townhomes, parking garage, significant green space, one senior building, family housing
- Utility structure: All utilities paid by owner

Scope:

- Replaced oil heating with natural gas condensing boilers;
- Removed underground oil storage tanks;
- New pumps and controls for co-generation;
- Technology interface to manage monitoring;
- Common area, apartment lighting

Financing Structure:

- \$964,474 line of credit, 20% equity (rebates); Term/Rate: 10 yr, 3.75% ; Repayment: 75% savings; Guarantee: Owner personal guarantee



Learnings:

- Select the right property because the retrofit take a long time;
- Finding the right third party engineer is imperative;
- Training the maintenance staff is critical,
- Obtaining financing takes time for debt approvals and rebates.

Lessons Learned to Get to Scale

- **Capital:** dedicated funds for affordable housing energy and renewable retrofits are limited and geographically specific.
- **Technical Assistance:** our market needs a network of dedicated service providers and tools for this market to fill a major capacity gap.
- **Demand drivers:** service providers and financiers cannot access customers readily.

Online Multifamily Retrofit Tools

Enterprise Multifamily Retrofit Toolkit

www.enterprisecommunity.org/retrofittoolkit

SAHF EZ Retrofit Tool

www.sahfnet.org/ezretrofit.html

Enterprise's Ready to Respond: Tools for Resilience

1



Disaster Preparedness - Are you Ready to Respond?

Disaster can strike anytime, anywhere. Affordable housing organizations face unique challenges during emergency events; unable to easily relocate, these organizations depend on the continuous operation of their buildings and often support vulnerable community members who are low-income or need supportive services.

This short, anonymous survey (10 minutes) will help you understand your organization's existing emergency preparedness for your buildings, operations, and residents. The assessment will also be used in a nationwide analysis and white paper to make the case for increased support and funding for resiliency in affordable multifamily housing in the U.S.

At the end of this survey, we will provide you with a link to the Ready to Respond: Disaster Staffing Toolkit that will enhance your organization's resilience to disasters and emergency events and develop your disaster preparedness plans.

Please note that if you close out of your browser you may have to restart the survey from the beginning.

Thank you for participation in this important survey!

Multifamily Flood Insurance Affordability Study

Final Report
September 2015



3

READY TO RESPOND

Strategies for Multifamily Building Resilience



Disaster Preparedness
for Affordable
Housing Organizations



READY TO RESPOND DISASTER STAFFING TOOLKIT

Overview: Why You Should be Ready to Respond



Disaster Preparedness
for Affordable
Housing Organizations



5



**SPEAKER SERIES
VIDEO LIBRARY**

Contact me!

Esther Toporovsky, Senior Program Director

www.enterprisecommunity.org/retrofittoolkit

www.EnterpriseCommunity.org

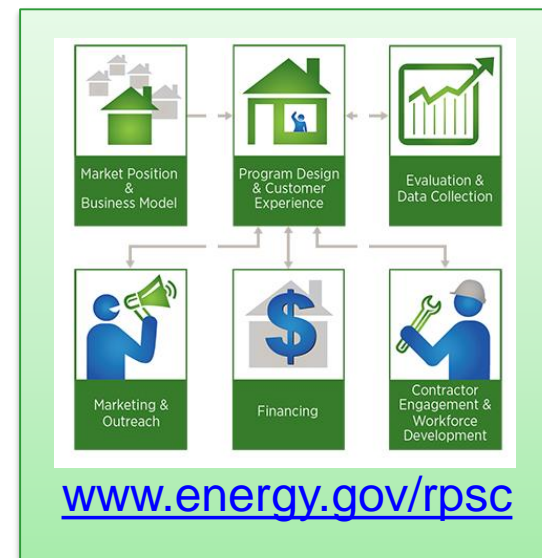
www.EnterpriseCommunity.com



Related Resources in the Residential Program Solution Center

Explore resources related to energy efficiency upgrades at multifamily properties:

- Maryland Department of Housing and Community Development's [Multi-Family Energy Audit Guide](#).
- [Case study](#) on Efficiency Maine's seven unit apartment upgrade.
- [Marketing & Outreach – Make Design Decisions handbook](#) discusses how to articulate your value proposition for customers.



While you're there, see the latest [Proven Practices](#) post on [Information Technology \(IT\) Systems](#).

The Solution Center is continually updated to support residential energy efficiency programs—
[member ideas are wanted!](#)

Residential Program Solution Center Navigational Example

Better Buildings Residential Program Solution Center

Quick Links

Browse key issues that many residential program case studies, presentations, tools and resources are available. **Market Segmentation** Market segmentation divides target audience information, teams of researchers, and reach them effectively. **Media Attention** Media can be an effective way of reaching each type has a different purpose. **Messaging** Messages that resonate with key communications materials need to reach potential customers. **Multifamily Financing** Financing needs in the multifamily ownership structures are often multifaceted. Furnaces or boilers, common area heating, and other building systems are often the focus of multifamily financing.

Quick Links Results

[\\$20 Billion Bonanza: Best Practice Utility Energy Efficiency Programs and Their Benefits for the Southwest](#)
Author: Southwest Energy Efficiency Project
Publication Date: 2012
This report explores the best practices that utilities should undertake in the development and implementation of energy efficiency programs. The report calculates the impact that investing in energy efficiency will have on jobs, household income, and state and regional economies, along with the other public health benefits such as reducing pollution.

[20-Unit Windham Apartment Building Gains Energy Savings and Comfort](#) (2 MB)
Author: Efficiency Maine
Publication Date: 2013
This case study highlights a 20-unit apartment building that gained energy savings and comfort through Efficiency Maine.

[2013 Annual Report of the Efficiency Maine Trust](#)
Author: Efficiency Maine
Publication Date: 2013
Year in review annual report which includes program data and success stories.

[A Seven Unit Apartment Building in Bangor is more Energy Efficient and more Comfortable](#) (427 KB)
Author: Efficiency Maine
Publication Date: 2013
This case study highlights the first project completed under Efficiency Maine's Multifamily Efficiency Program.

CURRENT SEARCH

Search found 134 items
(-) Multifamily Financing

FILTER BY CONTENT TYPE:

- [Publications \(43\)](#)
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- [Case Studies \(11\)](#)
- [Handbook \(10\)](#)
- [Tools & Calculators \(7\)](#)
- [Webcast \(6\)](#)
- [Tips for Success \(4\)](#)
- [Templates & Forms \(2\)](#)

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- [Program Design & Customer Experience \(48\)](#)
- [Evaluation & Data Collection \(31\)](#)
- [Marketing & Outreach \(38\)](#)
- [Financing \(37\)](#)
- [Contractor Engagement & Workforce Development \(20\)](#)

Marketing & Outreach **Financing** **Contractor Engagement & Workforce Development** **Energy Efficiency Collaboratives: Driving Ratepayer-Funded Efficiency Investments Through Working Group**

Discussion Questions

- What are your organization's experiences with multiple benefits of multifamily energy upgrades?
 - What types of benefits have you seen?
 - Which benefits have been most important for making the “business case” for energy upgrades?
 - Has your organization used a wide range of benefits to make a better business case for these investments?
- What are key challenges or barriers to capturing different benefits from multifamily energy upgrade projects?
 - What strategies are useful to overcome those challenges?
- Other questions/issues related to capitalizing on benefits of multifamily energy upgrades?

Discussion Highlights

- Other Experiences with Multiple Benefits:
 - Southwest Minnesota Housing Partnership observed improvements in resident health after energy upgrades at several multifamily properties.
 - In Portland, Oregon an energy efficiency upgrade in a low-income development enabled better lighting in the parking lot which eliminated gang activity.
- Strategies for Capitalizing on Multiple Benefits:
 - Good thermostats for multifamily buildings allow a defined temperature band to be set so residents cannot widely vary it. These thermostats must be easy for residents to use to be effective, as Yolo County Housing learned.
 - Additional toolkits would be helpful on topics related to attracting new funders, and to encouraging resident engagement.

Closing Poll

- After today's call, what will you do?
 - Seek out additional information on one or more of the ideas – **89%**
 - Consider implementing one or more of the ideas discussed – **5%**
 - Make no changes to your current approach – **5%**
 - Other (please explain) – **0%**

Peer Exchange Call Series

We hold one Peer Exchange call every Thursday 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:

- **January 14:** What Do You Want from Peer Exchange in 2016? Moving Your Ideas Out of Hibernation (201)
- **January 21:** The Energy-Water Nexus and What It Can Do for Your Residential Program (301)
- **January 28:** Where Do We Go From Here? The Changing Landscape of Residential Energy Efficiency (201)

*****No calls December 17 through January 7 for a winter break. Enjoy the holidays!*****

Send call topic ideas to peerexchange@rossstrategic.com

Thank you!

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