Better Buildings Neighborhood Program
Multi-family/ Low Income Peer Exchange Call: Information Technology Tools for Multi-family Building Programs

*Call Slides and Discussion Summary*

March 15, 2012
Agenda

• Call Logistics and Attendance
  - What information technology tools is your program using for project information, marketing, assessment, tracking or evaluation? What do you wish you had?

• Program Experience and Lessons:
  - Heather Larson, StopWaste.org, Energy Upgrade California
  - Adam Palmer, Eagle County, Colorado

• Discussion:
  - What multi-family tools have programs developed and what benefits can they provide?
  - How can tools be adapted for other programs?
Participating Programs

- Austin, TX
- Bainbridge Island, WA
- Chicago, IL
- Eagle County, CO
- Kansas City, MO
- Los Angeles County, CA
- Maine
- Seattle, WA
- Southeast Community Consortium

- Toledo, OH
Integrated Tools for Multifamily Portfolios

- EUC MF web-portal: https://multifamily.energyupgradeca.org
- MF Funding Finder Navigation Tool
  - Guidance on upgrade approach & measures
  - Connect to applicable rebates & incentives
- MF Tracking System
  - Utility usage analysis
    - Interface with EPA portfolio Manager
    - Track upgrades & program participation
    - Property owners
    - Program Administrators
    - Auditors/Raters
Introductions: Project(s) Team

- Initial tool development funded by California Energy Commission & State Energy Program
- Project Lead = StopWaste
  - Green Building in Alameda County
- Technical Consultants
  - Heschong Mahone Group
  - Renewable Funding
  - Performance Systems Development
Why develop these tools?

• Various stakeholder meetings in 2009-10 with:
  – Multifamily Property Owners & Managers
  – Raters/Auditors
  – Program Administrators
  – MF HERCC

• Identified the need to:
  – Link owners to appropriate program(s)
    • Post-ARRA replaces 1-on-1 TA
  – Plan & Track Up-grades **over time**
  – Establish consistent data protocols
    • Leveraging programs
    • Reporting & Evaluation
Asset Management IT tools

**Navigate**
- Programs/Rebates
- Approach/Measures
- Resources
- Professionals

**Benchmark**
- EPA Portfolio Manager
- ABS
- MF specific analysis

**Track Upgrades & Programs**
- Utility
- Local Government
- GreenPoint Rated

**Quantify**
- Pre & Post Savings
Funding Finder Navigation Tool

Multifamily Program

Getting an Upgrade  Funding Finder  Local Assistance

Funding Finder Property List: 1537 webster:
Property  Utilities  Planned Upgrades  Envelope  HVAC & Hot Water  Lighting  Appliances  Efficiency  Property Summary

Recommended Retrofit Approach: Whole Building

Opportunities for improvement

16 incentives available for your property*

Search:
Expiration Date
Appliance Recycling Program
Bay Area Multifamily Retrofit Loan Fund
California Utility Allowance Calculator
Commercial Calculated Incentives
Track Portfolio Performance

• Analyze energy usage
  – Integrated with EPA Portfolio Manager
  – Compare building/portfolio to peers
  – Quantify pre & post-retrofit savings
  • Upload modeled energy analysis from software tools

• Track measure installation & participation in upgrade programs
  – Local Government, Utility & GreenPoint Rated
    • Program Administrator interface
      – Workflow & Reporting
Software Modifications

- PSD’s Pre-existing Building Performance Compass Tool is being customized with features such as:
  - Integration to Funding Finder
  - Support for multiple user roles
  - CA programs workflow tracking & reporting
  - T-24 part 6 ACM (HERS II) software uploads
MF EUC IT Tools Release Timeline (2012)

- **March 1**: MF Web Portal & Funding Finder launch
- **March 27**: MF Tracking System launch
  - Includes Funding Finder Integration
- **April 30**: Tracking System Enhanced Release
  - Includes improved API exchange with EPA Portfolio Manager
- **April/May**: Property Owner workshops throughout CA
- **May Onwards**: Use of tools by various programs throughout CA for program Technical Assistance, Administration & Reporting
California’s Experience

• The tracking system was built off of a pre-existing platform and customized to meet California’s needs. It would cost $30,000 per year if they did not build it and just paid the licensing fee.
Eagle County, CO
Energy Smart Business

Energy Wise Business

Energy Smart School

Energy Smart Neighborhood
Energy Smart Multi-Family Protocol

- Residential vs. Mixed Use/Commercial
- Residential: 5 to 10% unit sample
- Mixed Use/Commercial: simplified TEA
- No owner cost to assessments
- Residential: driven by rebates
- Commercial/mixed use: driven by information/education

“Improvements with good ROI shouldn’t need a rebate, just education.” --Auden Schendler
GIS Mapping pre-1990 construction
Symbiotic Engineering

• Cross references Holy Cross Energy electricity use data with Assessor data
• Electricity use, intensity, use by building type, year of construction, etc.
• Great data
• Messaging challenge
Attention Property Managers & Multi-Family Homeowners Associations

Your multi-family neighborhood may be eligible for rebates of 20% of your efficiency upgrades up to $25,000!

LEVERAGE YOUR RESERVES!

- Accelerate plans for those capital improvement projects and take advantage of these funds while they are available.
- Need new insulation? Programmable thermostats? Lighting? Furnace or water heater? Caulking or other air sealing?
- Want to reduce maintenance costs and monthly energy bills?

We can help you get an assessment and provide you with energy saving solutions, today!

Your home owners will thank you!

Act now as there are limited funds for a limited time.

Call Your Eagle County Energy Smart Colorado Resource Center: 970.328.8777

Many multi-family complexes in Eagle County are already saving money and energy thanks to Energy Smart Colorado.
Colorado’s Experience

- Technical Energy Audits can be expensive and thus a cost barrier to making improvements. Colorado is working with one of their energy analysts to create a simplified protocol that has some engineering level analysis but focuses on providing the owner with the necessary information to show ROI.

- Colorado used their assessor’s database to obtain heating type information. The GIS department could then cross-reference properties that are coded as multi-family and use electric heat. Not all counties may have the same level of information available in their assessor’s data. In Colorado’s case, this information was publicly available.
Colorado: Lessons Learned

- Residential units tend to be drawn to the program by the rebates. Commercial mixed use buildings tend to be drawn more by the information and education opportunity.
DOE Seeks Industry Feedback on Voluntary Standard Work Specifications for Energy Upgrades in Multifamily Housing--March 12, 2012

- The Energy Department invites manufacturers of energy-efficient products, public housing authorities, industry stakeholders involved in the development, finance, and maintenance of multifamily properties, and others in the home performance industry to review and comment on "Standard Work Specifications for Multifamily Energy Upgrades." Developed under DOE’s Guidelines for Home Energy Professionals project, the specifications are voluntary guidelines that outline minimum requirements for high-quality energy upgrades in multifamily homes. The industry review period will remain open through May 4, 2012.

Online commenting tool: http://nrel.pnnl.gov/forum.php
Discussion

• What multi-family tools have programs developed and what benefits can they provide?
• How can tools be adapted for other programs?
Discussion and Lessons Learned

- Austin, TX is using NEAT software to do energy analysis for multi-family properties by unit as it was familiar to the auditors in the WAP program. They have found that it overpredicts and are looking into alternative software options such as REM/Design.

- Kansas City, MO is using TREAT software for multi-family and single family properties as their partners were already using this tool.

- The level of detail in property record information varies between states. Some records are still on paper and not readily available in an electronic format for easier access or use in GIS work.

- Chicago is using GIS to visually identify homes with particular characteristics based on some limited assessor’s data. They are mapping out potential and past projects.
Discussion and Lessons Learned

• Most projects were treating each multi-family unit separately for calculation of energy savings. For example, Kansas City looks at the individual units which makes it easier to use some of the tools and lowers costs to allow retrofits of more units. In general, treating the units separately versus a multi-family building as a single project may not be the most accurate way to reflect the energy savings.
Potential Future Call Topics

- Strategies to Address Split Incentives in Multi-family Buildings
- Multi-family Assessment Strategies and Tools
- Moving Low-Income and Multi-family Customers from Audits to Upgrades
- Using Social Media for Multi-family and Low Income Outreach