Energy Upgrade California Multifamily Program

LGC Statewide Energy Efficiency Best Practices Forum
July 19th 2012
Agenda

• EUC Local Government Multifamily Programs
• EUC in Alameda County Multifamily Program
• Statewide Multifamily Resources
  – Program Design Recommendations
  – Workforce Development
  – Marketing Materials
  – Web Portal & IT Tools
Understanding CA’s Multifamily Market

- Approx. 1/3 of households reside in MF
- > 70% of MF constructed before established building energy efficiency codes
- A 25% energy upgrade of ~350,000 dwellings = removing 80,000 passenger vehicles from road
- MF Retrofit Challenges & Opportunities
  - Building types
  - Financing
  - Split incentives
  - Trigger events
  - Cost-effective energy savings measures

Source: Multifamily HERCC Report
Solutions to overcome participation barriers

• Education/awareness
• Technical assistance
• Rebates/incentives
• Professionals training
• IT tools
• Financing
Energy Upgrade California – Multifamily Programs

- Sacramento County
- Alameda County
- San Francisco County
- Los Angeles County
- San Diego County
# Energy Upgrade California – Multifamily Programs

<table>
<thead>
<tr>
<th>Program Elements</th>
<th>Alameda County</th>
<th>Los Angeles</th>
<th>San Francisco</th>
<th>Sacramento (SMUD)</th>
<th>San Diego (SDG&amp;E, local)</th>
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<tr>
<td>Technical Assistance</td>
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<td>Energy Assessment Rebate</td>
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<td>Min. energy efficiency improvement</td>
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<td>✓ Min = 10%</td>
<td>✓ Lighting, Lighting Control, Appliances &amp; Weatherization</td>
<td>✓ Min = 20%</td>
<td>✓ Min = 10%</td>
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<td>Green Labeling Rebates</td>
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EUC in Alameda County
Multifamily Program
Technical Assistance
Green Labeling Rebate
EUC in Alameda County: Technical Assistance

- Energy Upgrade pays for a professional consultant to:
  - Provide recommendations on upgrades
  - Identify applicable programs
  - Assist with GreenPoint Rated checklist
  - Provide customized help as needed (e.g., product comparisons, utility bill tracking, etc.)

- Menu of services available at Multifamily.EnergyUpgradeCA.org
EUC in Alameda County: Green Labeling Rebates

• $3,000 – 30,000 assessed on case-by-case basis:
  – Number of units
  – GreenPoint Rating

• Designed to offset:
  – Third-party Rater fees (rate dependent on market)
  – Certification fees ($500 /project + $100 /add’t bldg)
  – If rebate exceeds costs, property owner keeps balance

• Paid in 2 installments:
  – 20% upon hiring Rater
  – 80% upon certification
Participate Process

Interest Form → Technical Assistance

Rebates & Resources:
- Government Programs
- Utility Programs
- Nonprofit Housing Finance
- Other Sources

Get Utility & Other Rebates

GreenPoint Rated Process:
- Preliminary GPR Checklist
- Hire Rater
- Complete Upgrade / Earn Certification
- Get Certification Rebate

STOPWASTE.ORG
Reducing the Waste Stream for Alameda County
Case Study: Posada de Colores

- Weatherized external façade
  - Repaired water/air infiltration leaks, replaced joint seals
- Dual pane, low-e windows
  - U-Factor: 0.31, SHGC: 0.33
- Domestic hot water & space heating boilers
  - 94% efficiency
  - New hydronic pipes, pipe insulation
  - Distribution system replacement: pumps, motors, fan coils, wiring, panels, controllers
- Elevator replacement
- High-efficacy lighting
  - Dwelling units
  - Common areas

100 affordable housing units for seniors (all occupied)

Built in 1976 (original systems still in use)
Posada de Colores: Envelope

Façade weatherization

Window upgrades
Posada de Colores: Heating Equipment

Before

After
Posada de Colores: Other Green Measures

- Energy: Lighting in units & common areas
- Community: ADA compliance remodel of common area restrooms
- Water: Common area water efficiency; efficient laundry machines
Statewide Multifamily Resources

Program Design Recommendations
Workforce Development
Marketing Materials
Web Portal & IT Tools
CA Home Energy Retrofit Coordinating Committee convened by EPA Region IX

MF Sub-Committee (MF HERCC; chaired by StopWaste.Org)
- Local, State, Federal Government
- Utilities
- Consultants & Industry professionals

Task Groups:
- Audit Protocols
- IT Data Protocols
- HERS II MF tools
- Weatherization & low-income coordination
MF HERCC Recommendations

• Add whole building performance-based program to existing individual measure-based program
• Minimum feasible energy improvement levels:
  – 10 % for 2000 – 2008
  – 15 % for 1980 – 2000
  – 20% for pre-1980
• Rater/energy consultant delivery
• Single point of customer interface
• Streamline low-income program delivery
• Audit protocols; combustion safety protocols

“Improving California’s Multifamily Buildings: Opportunities and Recommendations for Green Retrofit & Rehab Programs: Finding from the MF Sub-committee of the Home Energy Retrofit Coordinating Committee.. “ April 11, 2011
MF HERCC Recommendations

• Additional recommendations on:
  – Workforce training & certifications
  – Energy Analysis Software
  – Performance measurement, tracking & benchmarking

• Market characterization
  – Diversity of building types, energy systems, billing configuration, ownership structures
  – Trigger events & opportunities

“Improving California’s Multifamily Buildings: Opportunities and Recommendations for Green Retrofit & Rehab Programs: Finding from the MF Sub-committee of the Home Energy Retrofit Coordinating Committee.. “ April 11, 2011
Workforce Development

• Rater/Auditor
  – California Multifamily Existing Building training
  – BPI MFBA, GreenPoint Rated

• Energy Analyst
  – HERS II software training

• Building Operators
  – BPI MF Energy Efficiency Building Operator
  – Supports NAHMA, Green Business Program

• Central System Contractors (to be delivered)
Marketing Materials

• Developed Under State Energy Program:
  – Web Portal Design
  – Templates
  – Tri-fold & Multi-page Brochures
  – Case Studies
  – Banners
  – Photo Library
Integrated Tools for Multifamily Portfolios

• Energy Upgrade CA Multifamily web-portal: Multifamily.EnergyUpgradeCA.org
• Energy Upgrade CA Funding Finder
  – Guidance on upgrade approach & measures
  – Connect to applicable rebates & incentives
• Compass Portfolio Tracker
  – Utility usage analysis
  – Track upgrades & program participation
Recommended Retrofit Approach: Whole Building

Opportunities for improvement

13 incentives available for your property*

Incentive Name

- Appliance Recycling Program
- California Utility Allowance Calculator
- Commercial Deemed Incentives
- Energy Savings Assistance Program (ESAP)
- Energy Upgrade CA in San Diego (City of San Diego)
- Energy Upgrade CA in San Diego County / SDG&E Multifamily Program
- Green Affordable Housing Preservation Loan Fund
- Green Loan Fund
- Green Refinance Plus
- Low Income Housing Tax Credits

Expiration Date

- 06/01/2012
- 06/01/2012
Baseline Utility Analysis

Energy Savings Report

Demo Building
123 Main St
Philadelphia, PA 19010

Owner: Rich
Year Built: 1973
Square Footage: 300,000 sf
Report Date: 5/3/2010

Scenario details

Baseline Period:
Jun 2008 - Jun 2009

Weather: Normalized

Total Site Energy Analysis

Annualized by End Use
- Heating: 5,703,453
- Cooling: 3,815,913
- Baseload: 12,658,325
- Total: 27,389,703

Electricity

Annualized by End Use
- Heating: 1,011,597
- Cooling: 15,855,898
- Baseload: 15,855,898
- Total: 32,719,355

Natural Gas

Annualized by End Use
- Heating: 2,804,316
- Cooling: 1,804,477
- Baseload: 1,804,477
- Total: 6,413,264
Integrated Tools for Multifamily Portfolios

Navigate
• Programs/Rebates
• Approach/Measures
• Resources
• Professionals

Benchmark
• EPA Portfolio Manager
• Energy use intensity
• Weather normalized

Track Upgrades & Programs
• Utility
• Local Government
• GreenPoint Rated

Quantify
• Pre vs. Post Savings
• Projected vs. Actual Savings
The upgrade not only reduced our natural gas bills; it has benefited our residents with improved thermal and acoustical comfort.

— Ross Ojeda

Director Real Estate, Unity Council
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Multifamily.EnergyUpgradeCA.Org

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