DSM for Multifamily

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Unlocking Potential Savings

“$46 billion invested in MF residential buildings ............
will provide NPV of $80 billion in energy savings.”

– McKinsey and Company
Figure 17: 2012 Median EUIs of Low-Income/Affordable Housing and Multifamily Buildings by Number of Units

Multifamily Properties
Multifamily (MF) Housing

- ~25% of residential market
  - Subsidized Affordable – HUD, LIHTC, USDA-RD
  - Naturally Affordable / Market Rate

- MF is an underserved and untapped market
  - Commercial Property but Residential Use
  - Utility Rebate programs driven by Meter/Utility Account Holders
  - Complex Ownership / Management Structure
  - Split-Incentive hurdle – LPs, Agencies, Tenants
Why aren’t MF owners signing up?

- **Time Constraint**
  - Complex Process
  - Not High Priority

- **Knowledge**
  - Optimal Solutions
  - Regulatory
  - Pace of Technology Change

- **Financing**
  - Over ROI threshold
  - Lack of Reserves
  - Split Incentive
  - Myth – Green is Expensive
Successful EE Programs

1. Little to No Cost
   - Grant Funded – e.g. WAP, HUD, USDA-RD, etc.
   - Utility – DI Programs

2. Major Rehab of MF (Acq-Rehab or Sub Rehab)
   - Driver - Green certification or Local Codes
   - Refi of property

3. New construction
   - Driver - Green certification or Local Codes
Successful EE Programs

4. One-Stop-Shop

✓ Make it hassle-free
  • Oversees entire green rehab

✓ Provide relevant information
  • Cost effective ECMs

✓ Access to financing options
  • Rebates, Incentives, Grants
  • Debt or Off-Balance Sheet (EPC, PACE, PFS)
Program Structure

- Utility
  - Program Sponsor
  - Co Branding
  - Rebates
  - Oversight

- One-Stop-Shop
  - Contractor selection & management
  - Quality Assurance
  - Rebate Fulfillment

- Customer
  - Decision on SOW
  - Access to facility
  - Owner Contribution

- Contractors
  - Installations
  - Local Permits
ICAST Services

✓ Portfolio & Property Assessments
  1. Energy Audits
  2. Energy Star Scoring

✓ Access to Financing
  1. Traditional Debt
  2. Off-Balance Sheet
  3. Incentives and Rebates

✓ Green Retrofit:
  1. Energy Efficiency and DSM
  2. Renewable Energy
  3. Water Conservation

✓ Design / Specifications
✓ Identify & Manage Contractors
✓ Staff O&M Training
✓ Tenant Engagement
  1. On-Site
  2. Online

✓ Utility DSM Program Management
ICAST Background

- 501C3 nonprofit
- Market Served – Multifamily Properties
- History of serving non-urban areas
- 5% - 50% energy savings per project
- 5,000 Apartments served in last 4 years
- 1,600 Apartments committed for 2017 for NM Gas
- $2 Million in grant funds in 2016 to support growth
ICAST Approach

- Mission Based – Low Admin Costs
- Pay-for-Success approach
- Relationship based Sales & Marketing
- Early Retirement v/s End of Life Replacement
- Combine all possible incentives – other utility rebates, WAP, financing incentives, tax credits, etc.
  1. Rebates based on PUC metrics
  2. Utility rebates are under 25% of project costs
Incentive Programs

- FHA – MIP Reduction + 85% LTV
- Freddie /Fannie Green Loan Program
- Solar – 30% ITC + MACRS
- Grants e.g. WAP, LiHEAP, HOME, CDBG, HTF
- Utility rebates
- 179-D federal tax credit, 45-L tax deduction
- LIHTC
Off-Balance Sheet

Energy Performance Contracts (EPC)
✓ PHAs / USDA-RD / Market Rate Properties

Pay-For-Success (PFS)
✓ HUD PRAC and Property Based Section 8

Property Assessed Clean Energy (PACE)
✓ ALL MF Properties
Case Study #1

Financial Details
• Total Project Cost: $326,000
• Electric, Gas and Water Rebates
• WAP Funds
• PACE Financing

Scope of Work
• Replace HVAC – 96% efficient
• Pipe insulation
• Attic/crawl space insulation
• Lighting upgrades
• Low-Flow Devices
• Cool Roof
Case Study #2

Financial Details

- Project Cost: $600,000
- Electric, Gas and Water Utility Rebates
- HUD Funds
- EPC Financing

Scope of Work

- HVAC – replace furnaces
- Programmable thermostats
- Low-E windows
- Lighting upgrades
- Water management
- Solar PV
Lessons Learned

Implementers Perspective:

1. Financial viability of EE Retrofit is important
   - But take a holistic approach

2. Leverage utility rebates, grants and incentives
   - But owner “buy-in” is essential for L/T sustainability

3. Offer a comprehensive, hassle-free, and cost-effective program
   - Keep it simple & make it easy for the owner/manager
## Cost of Doing Nothing

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current annual utility cost</td>
<td>$100,000</td>
</tr>
<tr>
<td>25% utility savings due to Smart Rehab</td>
<td>$25,000</td>
</tr>
<tr>
<td>Reductions in O&amp;M costs from green rehab</td>
<td>$9,000</td>
</tr>
<tr>
<td>Increase in profits due to higher occupancy &amp; lower turnover due to smart rehab</td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Total Savings/Year i.e. Increase in NOI</strong></td>
<td><strong>$40,000</strong></td>
</tr>
<tr>
<td>Cost of Capital</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Increase in value of property</strong></td>
<td><strong>$800,000</strong></td>
</tr>
<tr>
<td>Lifetime of Smart Rehab (in years)</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total Savings from Smart Rehab</strong></td>
<td><strong>$600,000</strong></td>
</tr>
</tbody>
</table>
Thank you

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