Partnerships for Energy Efficiency Lending

Multifamily Retrofits in Chicago

Energy Savers

-Overview-

- Program to reduce energy consumption in multifamily rental buildings
- Jointly administered by Community Investment Corporation (CIC) and CNT Energy (CNTe), a division of Center for Neighborhood Technology.

- Since 2008:
  - Retrofits: 285 buildings / 10,000 units
  - Financed: 80 buildings / 3,000 units / $8.5MM
- Average: $3,000/unit 30% savings
  - Typical 24 unit building /$10,000 per year
  - 5-7 year payback
Energy Savers

Origins:
• The Preservation Compact → preserve affordable rental housing in Cook County
• Two costs most difficult to control:
  – Property taxes
  – Utility bills

Energy Savers

Partnership:
• CIC – a CDFI with experience in multifamily lending ($1.1 billion/2,000 loans/since 1984)
• CNT Energy – an energy efficiency provider
• CNT provides:
  – Assessment -Construction Oversight
  – Advice -Ongoing Monitoring
• CIC provides:
  – Access to owners -Financing (if needed)
Energy Savers: How it works

A one-stop energy efficiency shop for owners of multifamily buildings that offers:

- Energy Analysis
- Cost-effective energy-saving recommendations
- Low-cost financing through CIC
- Construction Oversight
- Tracking of building performance to ensure savings

Energy Savers Case Study

- Nautilus Investments
- Seven-story brick building with 55 units
- Constructed in 1928
- Steam heating system run on natural gas
Investment Package

• Improvements made:
  – New steam boiler
  – New boiler controls with indoor temperature sensors
  – High efficiency hot water heaters
  – Insulated heating pipes
• Investment: $80,000 low-interest loan

• Energy Savings:
  – 45% gas savings
  – $21,600/year

Old boiler and pipes
Energy saving improvements

- New steam boiler
- New boiler controls with indoor temperature sensors
- Replaced hot water heaters with high efficiency model

Installation of Cost Effective Measures

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Cost ($)</th>
<th>Savings (therm/year) (KWh/year)</th>
<th>$/year</th>
<th>Simple Payback (years)</th>
<th>Retrofit Lifetime (years)</th>
<th>SIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Install boiler controls in main building</td>
<td>6,800</td>
<td>2,339</td>
<td>2,339</td>
<td>2.4</td>
<td>12</td>
<td>5.1</td>
</tr>
<tr>
<td>2. Replace rehilt boiler in main building with a high efficiency boiler</td>
<td>80,800</td>
<td>9,336</td>
<td>9,336</td>
<td>6.6</td>
<td>26</td>
<td>2.0</td>
</tr>
<tr>
<td>3. Replace all incandescent light bulbs in exit signs with LEDs</td>
<td>5,280</td>
<td>8,410</td>
<td>841</td>
<td>6.3</td>
<td>10</td>
<td>1.6</td>
</tr>
<tr>
<td>4. Convert T-12 fluorescent lights with more efficient T-8 lights in all common areas</td>
<td>1,720</td>
<td>2,880</td>
<td>280</td>
<td>6.1</td>
<td>10</td>
<td>1.6</td>
</tr>
<tr>
<td>5. Install low-flow shower heads (1.5 GPM) and faucets aerators (1.5 GPM kitchen; 1.0 GPM bathroom)</td>
<td>14,400</td>
<td>1,560</td>
<td>1,560</td>
<td>6.0</td>
<td>10</td>
<td>1.1</td>
</tr>
<tr>
<td>6. Weatherstrip doors and install door sashes in common areas</td>
<td>4,200</td>
<td>1,680</td>
<td>1,680</td>
<td>2.3</td>
<td>10</td>
<td>4.0</td>
</tr>
<tr>
<td>TOTAL***</td>
<td>107,400</td>
<td>13,475</td>
<td>14,506</td>
<td>7.4</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* Assumes $4.00 per therm of natural gas or $0.10 per kWh of electricity, 1 therm = 22 kWh
** Savings for this measure will be seen by tenant, not owner. Costs associated with public Rebate not included in total.
*** Some may not match due to rounding.
Boiled measures are eligible for utility rebates. Please see Table 2.
Energy Savers

- Financing -

• 2008-2012: 80 Buildings/3,000 units/$8.5 million

• Loan Structure:
  – Second mortgage loans
  – Personal recourse
  – 3% (money obtained at 1%)
  – Often behind CIC first mortgage
  – 1.15 DSCR (after retrofit)
  – 90% LTV (recent appraisal)
  – 7 year term
  – 7-10 year amortization

NOTE: Energy savings should cover debt service.

Energy Savers

- Financing -

• Sources of funds:
  – Originally:
    • $1 million, MacArthur Foundation
    • $1 million, Grand Victoria Foundation
    • $1 million, CIC
  – New Funding:
    • $8 million, Bank of America
    • $5 million, MacArthur Foundation
    • Both 10 year, 1% PRIs
    • Also:
      – $500,000 grant, Bank of America, $3.5 million in loan loss reserves (City of Chicago, CMAP)
Energy Savers
-Wrap-Up-

• Key Elements
  – Partnership— CIC-CNTe
  – Low barrier to entry (no cost assessment and TA)
  – Nothing mandatory – owner choice
  – Flexible
  – Low cost financing, if needed

Energy Savers
-Wrap-Up-

• Looking Ahead – challenges of going to scale
  – Source of money for assessments, TA
  – Source of capital
  – Security for loan repayment

• Utility bills??
Thank you & Questions

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