Energy Efficiency Financing in the Multifamily/Public Housing Sectors

Owner’s Agent Services and Energy Performance Contracting

April 2, 2015
Public Housing Program

- Established to provide decent and safe rental housing for eligible low-income families, elderly, and persons with disabilities

- Approximately 1.2 million households living in public housing units
  - Managed by some 3,300 HAs

- The U.S. Department of Housing and Urban Development (HUD) administers Federal aid to local housing agencies (HAs)

- HUD furnishes technical and professional assistance in planning, developing and managing these developments
EPC Marketplace Opportunities

Rising utility cost in Public Housing

- Americans spend $200 billion annually to light, heat, and cool their homes
  - Of $200 billion, HUD spends $7 billion annually, ~13% of its budget (allowances and grants); $53B (2015)
  - $1.57 billion PHA –paid (20% of expenditures)
  - $452 million in tenant paid
  - $2.0 billion (total utility cost in PH)
## EPC Inventory 2010-2011 (Executed Contracts)

<table>
<thead>
<tr>
<th>PHA Type by Unit Count</th>
<th>PHAs</th>
<th>Percent of PHAs</th>
<th>Active or Completed EPCs*</th>
<th>Percent of PHAs w/EPCs*</th>
<th>Percent of Total PHAs</th>
<th>Total Invested ($M)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very small (Less than 250)</td>
<td>2332</td>
<td>74.6%</td>
<td>27</td>
<td>1.1%</td>
<td>&lt;1%</td>
<td>$24.0</td>
</tr>
<tr>
<td>Small (250-499)</td>
<td>430</td>
<td>13.8%</td>
<td>72</td>
<td>16.7%</td>
<td>2.3%</td>
<td>$93.3</td>
</tr>
<tr>
<td>Medium (500-1,249)</td>
<td>229</td>
<td>7.3%</td>
<td>68</td>
<td>29.8%</td>
<td>2.2%</td>
<td>$167.0</td>
</tr>
<tr>
<td>Large (1,250-6,599)</td>
<td>120</td>
<td>3.8%</td>
<td>87</td>
<td>72.5%</td>
<td>2.6%</td>
<td>$538.5</td>
</tr>
<tr>
<td>Very large (More than 6,599)</td>
<td>14</td>
<td>0.4%</td>
<td>11</td>
<td>78.6%</td>
<td>.4%</td>
<td>$279.9</td>
</tr>
<tr>
<td>Total</td>
<td>3125</td>
<td>100.0%</td>
<td>265</td>
<td>8.5%</td>
<td></td>
<td>$1,102.7</td>
</tr>
</tbody>
</table>

*Source: 2012 Report to Congress, Affordable Green: Renewing the Federal Commitment to Energy-Efficient, Healthy Housing
## EPC – An Historical Perspective

<table>
<thead>
<tr>
<th>Category</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td># of EPCs</td>
<td>270</td>
</tr>
<tr>
<td>EPC investment</td>
<td>$1.2B</td>
</tr>
<tr>
<td># of V Small (&lt;499)</td>
<td>106</td>
</tr>
<tr>
<td>Self-developed projects</td>
<td>26</td>
</tr>
<tr>
<td>Projects repaid</td>
<td>21</td>
</tr>
<tr>
<td>Internal Rate of Return</td>
<td>~ 10.9%</td>
</tr>
</tbody>
</table>
U.S. Public Housing Sector – Energy Barriers

- Majority of PHA buildings built pre-1970
- Process is too complicated – 12 to 18 month to get installation
- Lack of education on the part of lenders
- Energy conservation is not core mission of PHA
  - 100% occupancy and rent collection, compliance
- Investors perceive a lack of investment opportunities at scale with attractive returns, strong risk management
- 10 - 15 EPCs down from 20+ annually
  - RAD caused PHAs to pause and consider transition to MF program
Opportunity for EPCs in Maryland

32 Public Housing agencies in MD; ~1 percent
- 18,754 Units
- DOE competitive grant to provide owner’s agent services to local governments and PHAs to explore, evaluate, and implement EPCs

Compliments State grant and utility rebate programs

More information online:
http://energy.maryland.gov/Education/EnergyPerformanceContractingAssistanceProgram.htm
EPC Timeline in Public Housing

Time Line – 14 to 18 months from Development of RFP to NTP

- PHA Develops an RFQ/P Obtains HUD Approval - 30 to 60 Days
- Advertise Request for Qualifications/Proposal – 30 Days
- Site Visits (questions and answers) – 1 to 2 Weeks
- RFP Responses Due – 30 Days after Site Visits
- Short list ESCos and Interviews – 30 days
- ESCo Selected – Negotiate IGEA Agreement – 30 days
- Obtain Board Approval – 30 days
- IGEA Submission - 90 Working Days after Commence Date
- Negotiate /prepare ESA - Secure PHA, Board and HUD Approval – 60 Days
- Sign Energy Services Agreement with ESCO – 30 days
- Secure HUD Section 30 approval - 45 days
- Secure Financing – 30 days
- Notice to Proceed with Final Design, Pricing and Implementation Schedule – 30 days
EPC – ESCO Managed

- Projects can be done turn-key (ESCO)
- Generated savings must pay for measures, fastest payback ECMs are primary target
- One stop contracting
- Experienced national and regional firms
- Long established policies and procedures
- Guaranteed savings are available
- Provide for financing
- Solution to capability and capacity issues
- Plan EPCs in conjunction with broader capital projects
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Overview – Performance Incentives

Operating Fund Benefit

PHA share a decrease in utility consumption with HUD 75/25

Rate Reduction Incentive

If PHA takes initiative to reduce the rate it pays for utilities, then PHA will be permitted to retain 100/50 percent of the annual savings. New – applies to PHA paid and resident paid utilities
Overview – Energy Performance
Contract Incentives

Frozen Rolling Base Subsidy
Pre-construction utility consumption level is frozen for term of contract. Up to 100% usage savings + increases as utility rates rise.

Add-on Subsidy
PHA receives annual subsidy for utility costs + EPC contract costs.

Tenant Paid Utility Incentive
Rent increases, commensurate with utility cost savings; savings pay project costs.

Incentives created by 1988 legislation; implemented by 1993 regulations.
Financing

- EPCs are typically funded with long-term debt or leases by third-party institutions
- Established and well capitalized market for EPCs
- Advantageous to capital-limited PHAs
- Lease purchasing agreements are alternatives to debt-based financing
- 300+ EPC projects investing more than $1.5B (2014)
Owner’s Agent Services

Uniquely PHA qualified, experienced consultants

No-cost offer attractive to PHAs with competing priorities

Specific services to assist PHAs include:

- Developing EPC RFQ and RFP packages
- Assist PHA in evaluation of RFQ/RFP EPC responses
- Review/analyze IGEA on behalf of the PHA
- Assist in negotiation of Energy Service Agreement with ESCos
- Provide necessary training to PHA staff to ensure full understanding of the HUD energy incentives
- Assist in evaluation of cost reasonableness to validate project costs
- Validation of ESCo Measurement & Verification reports
Untapped? – 179D Rebate

- Tax deduction at Section 179D of the Internal Revenue Code
- Encourages EE design/construction
  - Expired 12/31/14; Still valid for projects installed after 2011
- Size - at least 40,000 square feet of energy retrofits.
- Eligibility - Any (3+ stories) PHA, governmental entity including schools, airports, cities, counties, states, federal agencies who have done lighting, HVAC & building envelope energy upgrades
- Statute is blind to funding source - Capital funds, ARRA monies, State or DOE grants or EPC
- Government entity allocates its 179D deduction to ESCOs, architects or engineers; in exchange for a negotiated payment
- HUD guidance developed to promote use of 179D
- 179D extension under consideration as part of Congressional Tax Reform legislation
Rental Assistance Demonstration

- RAD is HUD’s rental housing preservation strategy, which works to:
  - Preserve HUD–funded public and assisted housing (losing 10,000 – 15,000 units annually)
  - Streamline housing rental programs
  - Simplify program administration
  - Leverage private financing to meet public housing capital needs
  - Encourage broader housing planning efforts
  - Introduce greater market discipline
  - Enhance tenant choice
  - Build strong, stable communities
Key Debate: EPC v. RAD v. Both

Grant team in unique position to educate PHAs on EPC as an interim step to RAD...

- Helping PHAs implement EPCs to:
  - Improve operational efficiency of PHAs that are not currently suitable for RAD conversion
  - Strengthen position for PHAs considering RAD, however, can’t convert at current funding levels
  - Continue to reduce utility costs in PHAs that do not have great capital needs and not currently seeking RAD conversion

- And supporting PHAs and others in MD with alternative financing mechanisms and incentives
  - EmPOWER Maryland utility rebate programs
  - Maryland Smart Energy Communities and Low-to-Moderate Income Grant Programs
  - Low-interest Jane E. Lawton Conservation Loan Program
Progress to Date

- Three PHAs signed up and participating
  - HACA, Elkton, and Hagerstown
  - All three received walk-through audits of facilities
  - Evaluating options

- Support for PHA sector in Maryland and beyond
  - Upcoming article in national housing journal
  - Formal presentation at MAHRA
  - EPC v. RAD decision tree
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