MASSACHUSETTS LOW-INCOME ENERGY EFFICIENCY PROGRAMS

Energy Efficiency Advisory Council Workshop, February 26, 2015

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Overview

• Annual Investment: ≈$100M

• Comprehensive: $4000 average investment per housing unit

• BCRs average > 2.0

• Leverage utility program monies with DOE Weatherization and HEARTWAP
## Data

### 2014

<table>
<thead>
<tr>
<th></th>
<th>ELECTRIC</th>
<th>GAS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned</td>
<td>Achieved</td>
</tr>
<tr>
<td>Participants (a)</td>
<td>27,488</td>
<td>40,682</td>
</tr>
<tr>
<td>Expenditures</td>
<td>$54.9M</td>
<td>$58.19M</td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td>$129.6M</td>
</tr>
<tr>
<td>BCR (computed)</td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Capacity</td>
<td>3,246 kW</td>
<td>4,609 kW</td>
</tr>
<tr>
<td>Annual Energy</td>
<td>27,259 mWh</td>
<td>43,887 mWh</td>
</tr>
<tr>
<td>Lifetime Energy</td>
<td>260,056 mWh</td>
<td>431,693 mWh</td>
</tr>
</tbody>
</table>
Data (continued)
Gas vs. Electric 2014

- Expenditures (Planned)
- Expenditures (Achieved)
Measures Overview

Gas Measures
• Insulation and air sealing
• Heating systems/DHW
• Thermostats
• Showerheads/aerators
• Controls
• Weatherization repairs

Electric Measures
• Insulation and air sealing
• Weatherization repairs
• Lighting Fixtures
• LED, CFL Bulbs
• Smart strips
• DHW
• VFD’s
• Air-Source Heat Pumps
• Thermostats
• Refrigerators, Air Conditioners
Measures Savings Breakdown

Multifamily

Electric MF

% of Savings

- Lighting (In-Unit, Common Area, Exterior)
- Appliances
- Thermostats
- Weatherization
- Other (Smartstraps, non-custom measures)
- Education
- Water Heaters

74%

Gas MF

% of Savings

- Heating and Water Heaters
- Weatherization
- Other (Aerators, Showerheads, DHW measures, pipe insulation)

48%

42%

10%

* Information breakdown provided by CADMUS for LIMF Impact Evaluation
Measures Savings Breakdown

1-4 Family

Electric 1-4 Family

- 90% of Savings
- 3% of Savings
- 7% of Savings

Amps (Audits, refrigerators, bulbs)
Weatherization
Heating Systems

Gas 1-4 Family

- 65% of Savings
- 35% of Savings

Weatherization
Heating Systems

* 2014 Agency Data

Low Income Energy Affordability Network
LEAN
ENHANCEMENTS

LEDs!

1-4 Family
• Major shift in program to increase LED bulb installations and reduce CFL installations

Multifamily
• Significant change in fixtures, moving from retrofitting with fluorescent fixtures to retrofitting LED fixtures. (wide range of available LED fixtures to choose from)
ACHIEVEMENTS

• EXCEEDED GOALS
• ROBUST COST-EFFECTIVENESS
• COMPREHENSIVE INVESTMENT, ~$4000/HH
• WHOLE-HOUSE, ALL COST-EFFECTIVE DESIGN
• > 100% QC
• NEBs (see TRM), e.g.:
  – Affordability: 15-30% energy burden v 3%, savings 20-30%+
  – Health
  – Property values, Comfort
  – Reduced noise
PROGRAM
(1-4 Family)

• IMPLEMENTED BY LEAN, per G.L. c. 25, sec. 19(c)
  – PAs significant
• FUEL ASSISTANCE MAIN ELIGIBILITY SCREEN
  – Approx. 200,000
  – Also all HHs w/documentated income <= 60% median
  – Heating fuel distribution: 30% oil, 10% electric
  – Clients also get LI discount, arrearage management, if eligible
• NO CLIENT CO-PAYMENT
PROGRAM, continued (1-4 Family)

• PIGGYBACKED WITH FEDERAL PROGRAMS
  
  • Including DOE WAP, HHS heating systems
  
  • Funding
  
  • Training and certification
  
  • Protocols
  
  • QC

• MANAGED FOR GEOGRAPHIC DIVERSITY
PROGRAM
(Multifamily)

- IMPLEMENTED BY LEAN, per G.L. c. 25, sec. 19(c)
  - PAs significant

- NO CO-PAYMENT
  - 100% Incentive

- LIMF OWNERS APPLY ONLINE
  - Overseen by Advisory Comm., of owners, PAs
  - LEAN Screens for Eligibility

- Clients include housing authorities, non-profit low-income housing and for-profit low-income housing
OPPORTUNITIES

Eligibility

• LIMF OIL (RCS)
• NON-PROFITS THAT SERVE LI
• HHs APPLYING BUT NOT ELIGIBLE FOR FA (60-80% median)
• MFs THAT MEET 80% HUD STANDARD

Technology/Practices

• ASHPs
• LED FIXTURES
• SMART CONTROLS (THERMOSTATS)
• RECOMMISSIONING
QUESTIONS

• ADJUST ELIGIBILITY?
• ADD TECHNOLOGIES AND PRACTICES?
• OTHER PROGRAM CHANGES?
• ADDITIONAL MEANS OF MARKET SECTOR COMMUNICATION?
FOR MORE INFORMATION

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