ADVANCING AFFORDABILITY:

Equity and Health through Energy-Efficient Housing

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Energy Efficiency for All (EEFA)

• Ensure housing and energy policies provide sufficient resources to advance investments in energy efficiency in affordable multi-family housing, which will combat climate change, improve public health, increase energy affordability and support environmental justice.
Energy Efficiency For All Project Sites
Why Energy Efficiency?

• Energy efficiency...
  • Is the cheapest, lowest risk energy resource
  • Creates jobs and avoids price volatility
  • Provides benefits beyond energy savings (e.g. health)
  • Acts as a community resiliency strategy
  • Helps make energy more affordable for low-income households
Multi-Family Market Underserved
Multi-Family Share of Utility Spending vs Market Share

Source: ACEEE

Multifamily energy efficiency spending across the 51 largest markets only accounts for an average of 6% of total efficiency spending. Sales of electricity and natural gas to multifamily properties comprised 11% of all sales.
Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities

Ariel Drehobl and Lauren Ross
What is energy burden?

- The proportion of total household income that goes towards home energy bills, which includes electricity, natural gas, and other heating fuels

- All households have energy burdens

- For metropolitan households in the US, the median burden is 3.5%

- Researchers identify 6-11% as the initial indicator of a high energy burden

- NY state goal of 6% energy burden
Median energy of low-income households compared to the overall median for each city
Regional energy burden trends
<table>
<thead>
<tr>
<th>Type of driver</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Inefficient and/or poorly maintained HVAC systems</td>
</tr>
<tr>
<td></td>
<td>Heating system and fuel type</td>
</tr>
<tr>
<td></td>
<td>Poor insulation, leaky roofs, and inadequate air sealing</td>
</tr>
<tr>
<td></td>
<td>Inefficient large-scale appliances (e.g., refrigerators, dishwashers) and lighting sources</td>
</tr>
<tr>
<td></td>
<td>Weather extremes that raise the need for heating and cooling</td>
</tr>
<tr>
<td>Economic</td>
<td>Chronic economic hardship due to persistent low income</td>
</tr>
<tr>
<td></td>
<td>Sudden economic hardship (e.g., severe health event or unemployment)</td>
</tr>
<tr>
<td></td>
<td>Inability or difficulty affording the up-front costs of energy efficiency investments</td>
</tr>
<tr>
<td>Policy</td>
<td>Insufficient or inaccessible policies and programs for bill assistance, weatherization, and energy efficiency for low-income households</td>
</tr>
<tr>
<td></td>
<td>Certain utility rate design practices, such as high customer fixed charges, that limit the ability of customers to respond to high bills through energy efficiency or conservation</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Lack of access to information about bill assistance or energy efficiency programs</td>
</tr>
<tr>
<td></td>
<td>Lack of knowledge about energy conservation measures</td>
</tr>
<tr>
<td></td>
<td>Increased energy use due to age or disability</td>
</tr>
</tbody>
</table>
As Climate Changes, Southern States Will Suffer

Predicted damage, 2080 to 2099
Percent of county G.D.P. per year

-5  0  +5  10  15
Misconceptions about high energy burdens

- Higher energy burdens are not simply determined by high energy prices and lower incomes
- Other important factors:
  - Income equality
  - Inefficient housing stock
  - Utility and public benefit energy efficiency programs/investments
A focus on Multi-Family Housing

- Multifamily buildings represent approximately one-fourth of all the housing units in the U.S.
- and 20 percent of the energy consumed by all housing
- Low income MF housing represented the second highest energy burden in every region of the nation... except California and the Midwest
A focus on Multi-Family Housing (cont.)

• Energy expenditures run 37% higher per square foot than in owner-occupied multifamily units (i.e. condos or cooperatives),
  • 41% higher than in renter-occupied single family detached units, and
  • 76% higher than in owner-occupied single family detached units.

• From 2001 to 2009, while average rents in multifamily housing increased by 7.5%, energy cost for these renters increased by nearly 23%.

• For these low-income renting families, 97% of the excess energy burden was due to inefficient homes

• Bringing low income and low income multifamily housing stock up to the efficiency of the median household in these large cities would eliminate at least 35% of the excess energy burden.

• Those are real and critical dollars—the average family could save as much as $300 annually on utility bills.
## Energy Assistance v. Energy Efficiency

<table>
<thead>
<tr>
<th>State</th>
<th>Total Energy Assistance Funding</th>
<th>Total Low-Income Energy Efficiency Program Funding</th>
<th>EE % of EE &amp; EA Funding Combined</th>
<th>EE to EA Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>$1,504,182,529</td>
<td>$409,015,342</td>
<td>21%</td>
<td>3.7:1</td>
</tr>
<tr>
<td>Georgia</td>
<td>$82,796,247</td>
<td>$6,124,675</td>
<td>7%</td>
<td>13.5:1</td>
</tr>
<tr>
<td>Illinois</td>
<td>$225,549,884</td>
<td>$45,331,308</td>
<td>17%</td>
<td>5:1</td>
</tr>
<tr>
<td>Louisiana</td>
<td>$37,228,987</td>
<td>$6,291,211</td>
<td>14%</td>
<td>5.9:1</td>
</tr>
<tr>
<td>Maryland</td>
<td>$148,502,940</td>
<td>$44,364,036</td>
<td>23%</td>
<td>3.4:1</td>
</tr>
<tr>
<td>Michigan</td>
<td>$204,015,158</td>
<td>$45,882,847</td>
<td>18%</td>
<td>3.4:1</td>
</tr>
<tr>
<td>Minnesota</td>
<td>$123,457,845</td>
<td>$21,476,695</td>
<td>15%</td>
<td>5.8:1</td>
</tr>
<tr>
<td>Missouri</td>
<td>$66,506,016</td>
<td>$12,366,572</td>
<td>16%</td>
<td>5.4:1</td>
</tr>
<tr>
<td>New York</td>
<td>$463,412,831</td>
<td>$117,282,281</td>
<td>20%</td>
<td>4:1</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>$523,312,412</td>
<td>$61,998,682</td>
<td>11%</td>
<td>8.4:1</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>$27,458,414</td>
<td>$17,972,719</td>
<td>40%</td>
<td>1.5:1</td>
</tr>
<tr>
<td>Virginia</td>
<td>$69,306,269</td>
<td>$15,593,827</td>
<td>18%</td>
<td>4.4:1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,475,729,532</strong></td>
<td><strong>$803,700,195</strong></td>
<td>19%</td>
<td><strong>4.3:1</strong></td>
</tr>
</tbody>
</table>

- In the 12 EEFA states we are wasting $521 million every year subsidizing energy bills that are higher than they should be.
- That waste alone is equal to 65% of the funds we are spending on low-income energy efficiency in those states.
Multiple benefits of energy efficiency for low-income households

• **Lower monthly bills (residents)**
  - Examples: more disposable income, reduced stress, more money spent in local economy

• **Improved housing (residents)**
  - Examples: better health and safety, increased property value, lower maintenance costs, greater housing satisfaction

• **Local economic development (community)**
  - Examples: more local jobs, improved quality of life, increased property values

• **Less power used (utilities and community)**
  - Examples: reduced environmental pollutants, improved public health, avoided excess costs of increased generation, capacity, and transmission investments
Strategies for improving energy efficiency in low-income communities

1. Improve and expand low-income utility programs

2. Collect, track, and report demographic data on program participation

3. Strengthen policy levers and more effectively leverage existing programs

4. Develop Climate Action Plans to prioritize investment in low-income energy efficiency
Thank you!

• Questions and comments:
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