



# 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.



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# Energy Efficiency For All Project Sites



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# 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

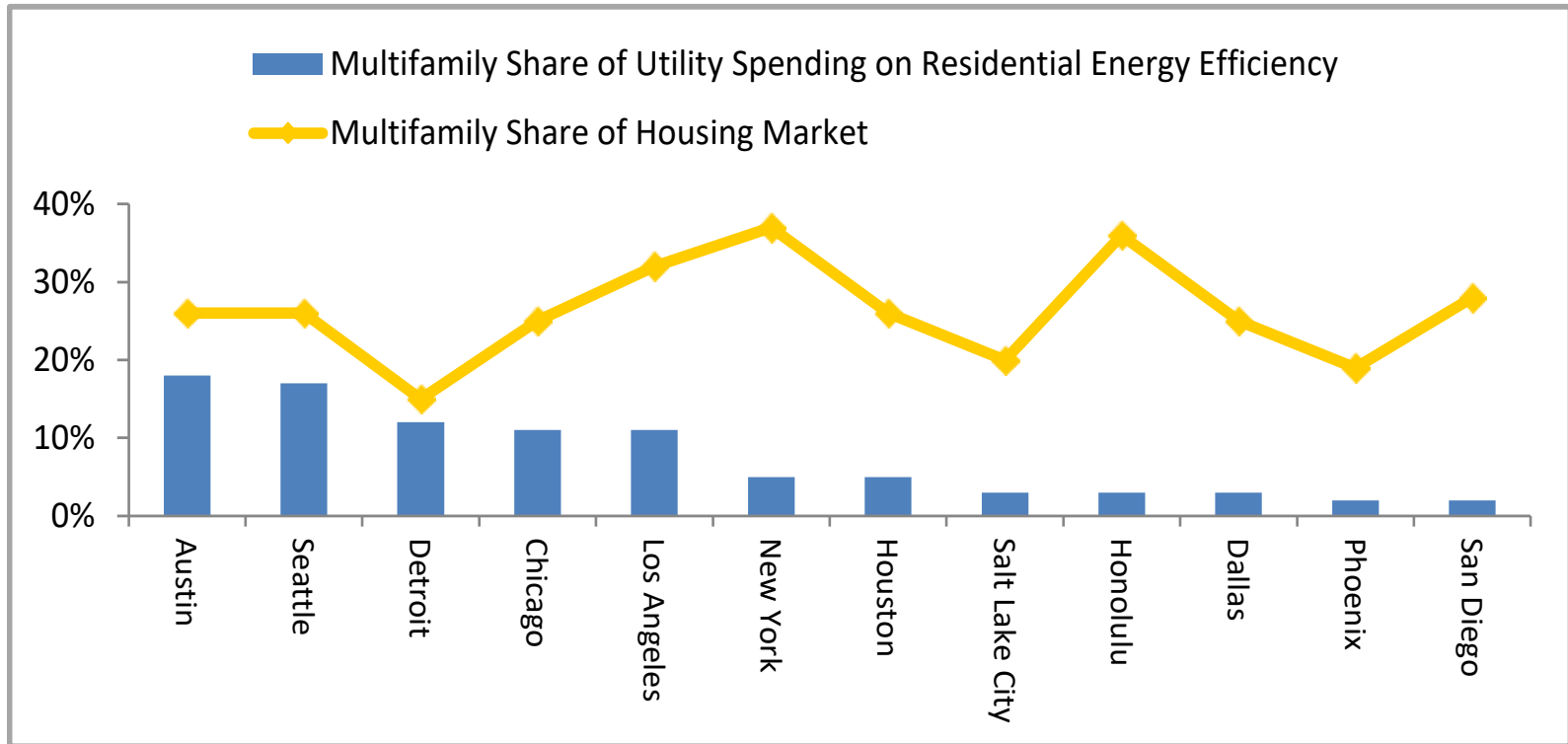


Multifamily dollars spent as a percentage of total energy efficiency spending



# 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 Dreho and Lauren Ross





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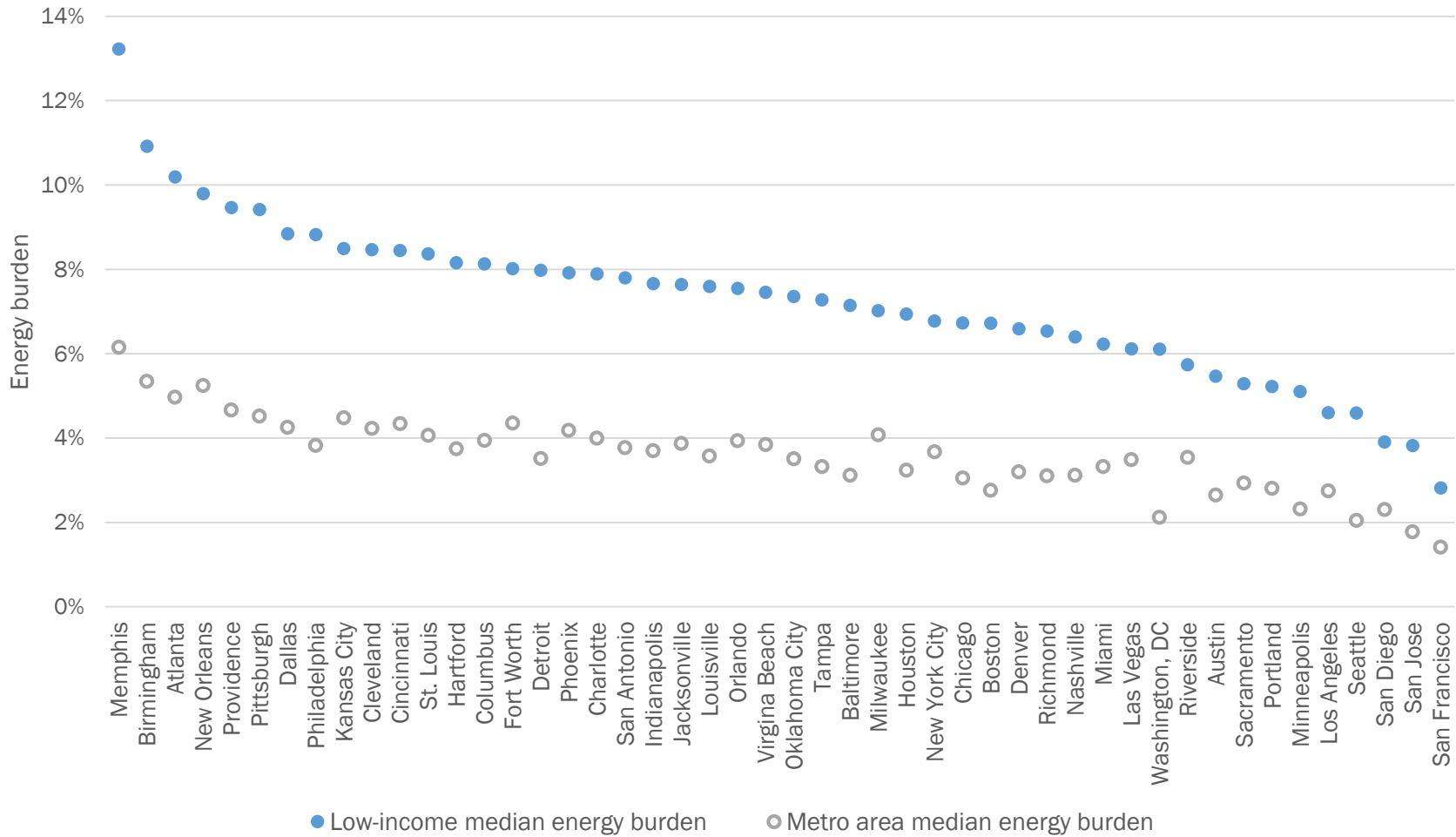
# What is energy burden?

- 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

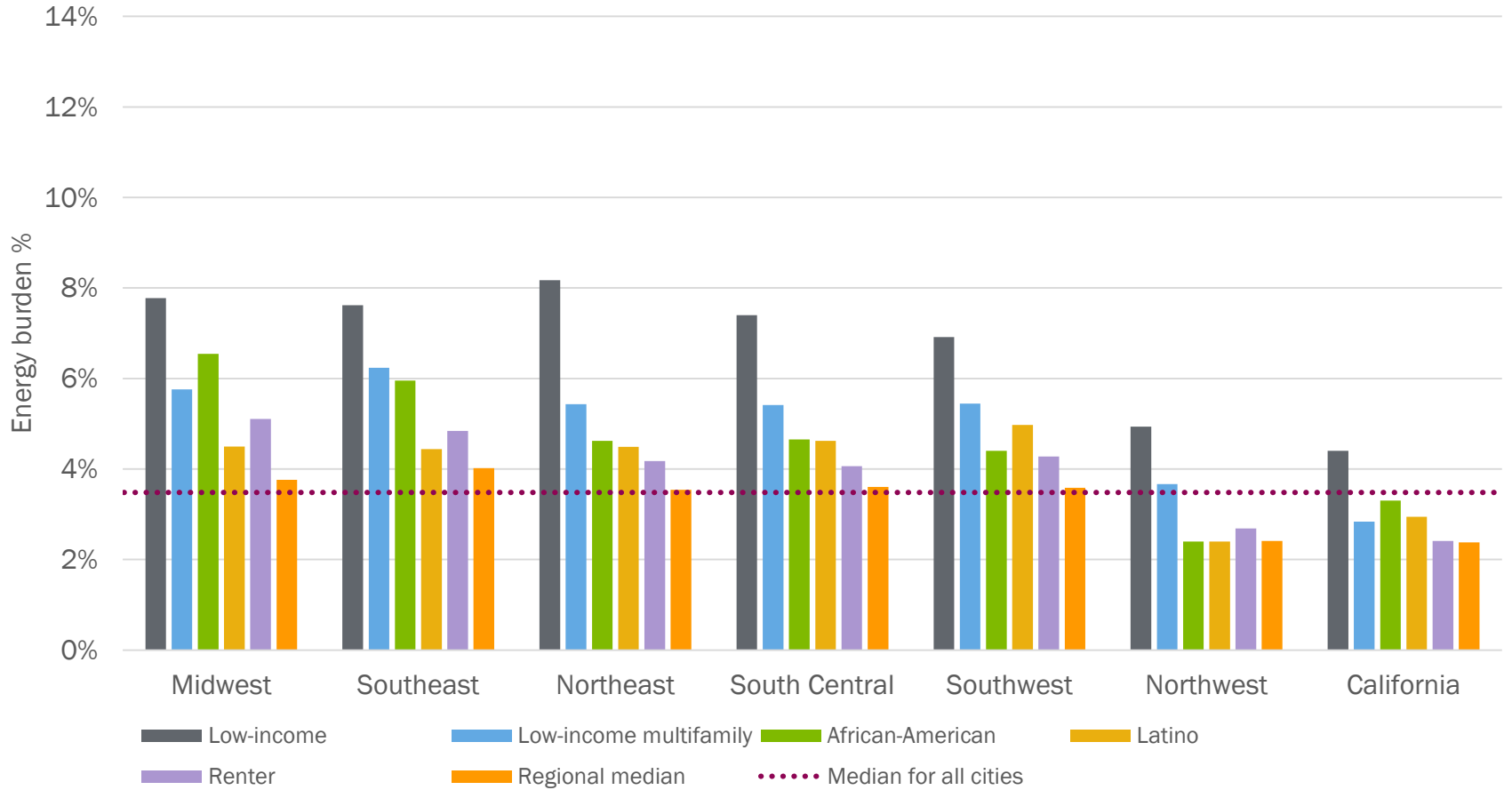




# Median energy of low-income households compared to the overall median for each city



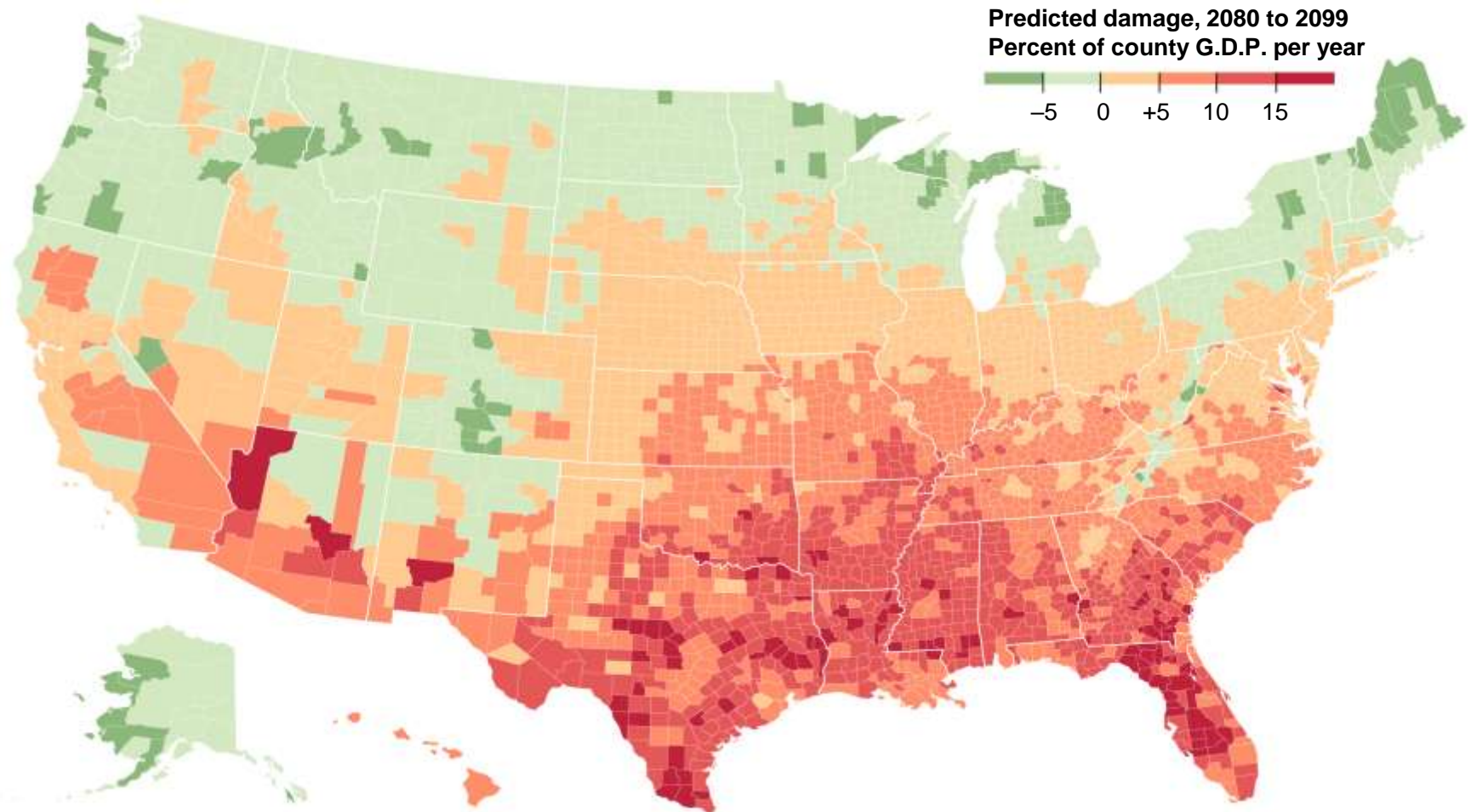
# Regional energy burden trends



# Drivers of household energy burden

Type of driver	Examples
Physical	Inefficient and/or poorly maintained HVAC systems
	Heating system and fuel type
	Poor insulation, leaky roofs, and inadequate air sealing
	Inefficient large-scale appliances (e.g., refrigerators, dishwashers) and lighting sources
	Weather extremes that raise the need for heating and cooling
Economic	Chronic economic hardship due to persistent low income
	Sudden economic hardship (e.g., severe health event or unemployment)
	Inability or difficulty affording the up-front costs of energy efficiency investments
Policy	Insufficient or inaccessible policies and programs for bill assistance, weatherization, and energy efficiency for low-income households
	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
Behavioral	Lack of access to information about bill assistance or energy efficiency programs
	Lack of knowledge about energy conservation measures
	Increased energy use due to age or disability

# As Climate Changes, Southern States Will Suffer



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# 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



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# 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





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## 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

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

- 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



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# 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



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# Thank you!

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