Is energy access a basic human right?
The State of U.S. Energy Insecurity

Pre-pandemic (2015 RECS)

- Receiving disconnect notice: 2% almost every month, 4% some months, 7% 1 or 2 months
- Keeping home at unhealthy temperature: 2% almost every month, 5% some months, 4% 1 or 2 months
- Reducing or forgoing basic necessities due to home energy bill: 5% almost every month, 9% some months, 6% 1 or 2 months

Source: EIA, Residential Energy Consumption Survey 2015
Distribution of Energy Insecurity by Census Region

No. of Energy Insecure HHs

- US 37.1M
- Northeast 6.2M
- Midwest 7.4M
- West 8.1M
- South 15.4M

Source: EIA, Residential Energy Consumption Survey 2015
The State of U.S. Energy Insecurity

The pandemic has deepened energy insecurity (May 2020)

• Energy insecurity has disproportionately worsened for vulnerable populations
  
  African American (16 %)
  Hispanic (19 %)
  White respondents (9 %)

• reported difficulty paying an energy bill in the last month

Source: Indiana University
“Where U.S. Energy Policy is concerned, African Americans are proverbial canaries in the mineshaft.”

Congressional Black Caucus Foundation Report, African Americans and Climate Change: An Unequal Burden, 2004
Energy and Race – Consumption vs Efficiency

Source: EIA, Residential Energy Consumption Survey 2015
Residential Electricity Consumption
Residential Electricity (in)Efficiency
Detroit Heating Consumption v. (in)efficiency

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Correlation Heating Consumption</th>
<th>Correlation Heating Inefficiency</th>
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</thead>
<tbody>
<tr>
<td>Economic Status</td>
<td>Median HH income</td>
<td>↑</td>
<td>↓</td>
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<tr>
<td></td>
<td>% HHs below poverty</td>
<td>↓</td>
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<tr>
<td>Education</td>
<td>% Less HS diploma</td>
<td>↓</td>
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<tr>
<td>Race/Ethnicity</td>
<td>% White HHs</td>
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<tr>
<td></td>
<td>% African Americans HHs</td>
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<td></td>
<td>% Hispanic HHs</td>
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<tr>
<td>Housing Tenure</td>
<td>% Owner-occupied</td>
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</tr>
</tbody>
</table>

HHs= Households

Detroit utility shut-off protests, 2012
Estimating Heating Energy Efficiency (National)
An incandescent truth: Disparities in energy-efficient lighting availability and prices in an urban US county

The Energy Efficiency Funding Donut Hole

Understanding the residential energy efficiency financing coverage gap and market potential.
Conclusions

• Spatial, racial, and socioeconomic disparities exist in residential energy efficiency, affordability, and technology access

• Less energy efficient areas are spatially clustered (place is important)

• Targeted, community-based approaches to energy efficiency support energy justice & may enable more effective implementation of assistance programs

• Community-based approaches recognize the unique characteristics and needs of target communities to overcome participation and technology access barriers
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