



Energy Equity in Michigan:

The Issue and Action Steps for Industry and Community Members



The M-LEEd Center's Community Engagement Core (CEC) increases awareness and understanding of environmental impacts on human health.

Stakeholder Advocacy Board members include:

- Community Health and Social Services
- Detroit Health Department
- Detroit Hispanic Development Corporation
- Detroiters Working for Environmental Justice
- Eastside Community Network
- Ecology Center
- Henry Ford Health System
- Michigan Environmental Justice Coalition
- We the People of Detroit

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What is Energy Equity?

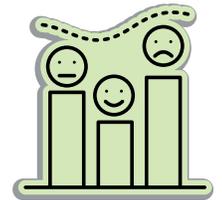
Energy Equity means that the benefits of energy, as well as the costs and pollution created by our energy system, are distributed fairly. Currently, the health costs and pollution from energy systems are concentrated in low-income, rural or black, indigenous, and people of color (BIPOC) communities.

Energy equity would mean:

- Fair access to clean energy
- Fair access to climate action and clean energy programs
- Addressing health harms BIPOC communities have experienced from fossil fuel energy production.^{1 7-10}

Why is energy equity important?

Easy and affordable access to clean energy helps us all to live safe and comfortable lives. Currently, most energy in Michigan comes from fossil fuels such as coal, gasoline and methane (fracked or "natural" gas).²



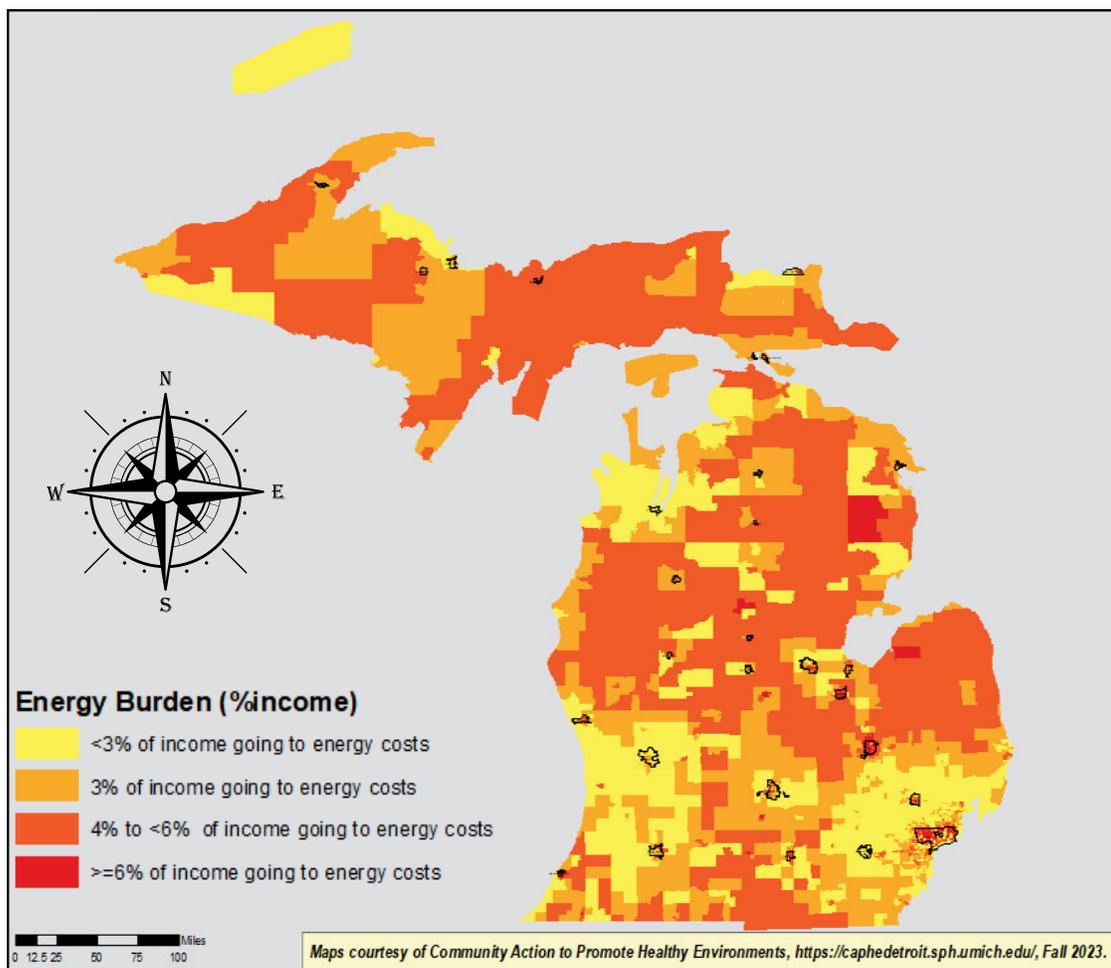
Pollutants are released in the process of creating energy from fossil fuels. This is harmful to the environment and people's health.

Communities located near power plants and storage facilities are exposed to higher levels of these pollutants and experience worse health outcomes as a result. The same communities pay a larger part of their income to cover their energy expenses (See the maps below for more detail).^{3 11 12} We refer to this as energy burden. Energy equity assures that pollutants and other costs of energy production do not disproportionately fall on those who benefit the least from the energy produced.

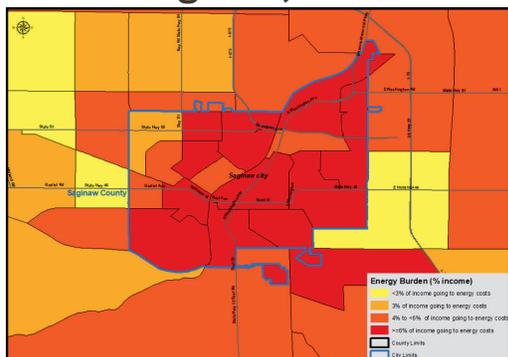
What does energy burden look like in Michigan?

These maps show the energy burden in census tracts across Michigan. Energy burden is defined as the percentage of a household's income that is used to pay for energy. Tracts with higher energy burden are in dark red, and those with lesser burden are yellow.

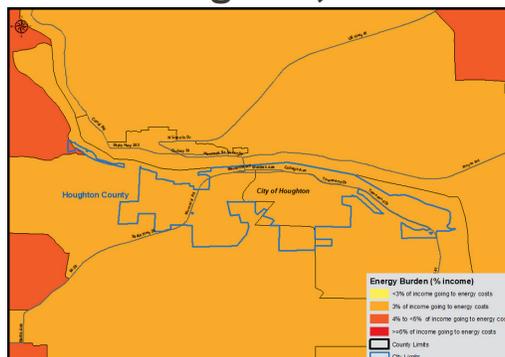
High energy burden is defined as being 6% or more of a household's income. Based data from the EPA's Low-Income Energy Affordability Data Tool, the national average energy burden for low-income households is 8.6% - 3 times higher than for non-low income households. In Michigan, almost half of all census tracts have an energy burden of 10% or more, with some tracts in Wayne County having an energy burden of 36%.



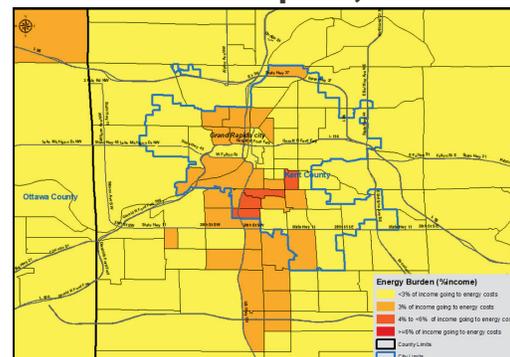
Saginaw, MI



Houghton, MI



Grand Rapids, MI



Data source: Low-income Energy Affordability Data (LEAD) Tool (<https://www.energy.gov/eere/leic/maps/lead-tool>) and (<https://lead.openet.org/assets/docs/LEAD-Tool-Methodology.pdf>)
 Model used: Federal Poverty Level (FPL) - The Federal Poverty Level is a measure of income used by the U.S. government to determine who is eligible for subsidies, programs, and benefits.
 Variables included in the model: Building Age, Heating Fuel Type and Building Type (Housing data comes from the U.S. Census Bureau's American Community Survey 2018)



How do we move toward Energy Equity?

Utility companies are expanding to meet the needs of a growing population. In Michigan, utility companies must submit an Integrated Resource Plan (IRP) to the Michigan Public Service Commission (MPSC) for approval. IRPs describe the utility companies' energy production plans. Utility companies are not currently required to include an assessment of health impacts in a proposed IRP.



One way to reduce the negative health outcomes associated with energy production is to require utility companies to include a health impact assessment (HIA) as part of the IRP. Doing so would help the MPSC make more informed decisions about the impacts of utility plans on health, and help protect overburdened communities from additional health risks. ³

What pollutants come from fossil fuels and what are the health effects?

<p>Coal</p> 	<p>Fracked ("natural") gas</p> 	<p>Petroleum</p> 
<p>Health Effects: Skin, heart, brain, blood and lung diseases, and different cancers. ¹⁵</p>	<p>Health effects: Irritation of throat, eyes, skin, and lungs; cough, asthma, lung fibrosis, heart attack, stroke. ^{16 17}</p>	<p>Health Effects: Respiratory issues (e.g. asthma, bronchitis), skin irritations, nausea, eye problems, headaches, birth defects, and cancer. ^{17 18}</p>
<p>Pollutants: Mercury, lead, sulfur dioxide, nitrogen oxides, particulates, and various other heavy metals. ⁴</p>	<p>Pollutants: Methane, carbon monoxide, nitrogen oxides, formaldehyde, ammonia, and fine particulate matter. ⁵</p>	<p>Pollutants: Carbon monoxide, nitrogen oxides, particulate matter, unburned hydrocarbons, and carbon dioxide. ⁶</p>



What can decision makers do to advance energy equity?

- Expand on the efforts of the Michigan Public Service Commission to conduct an environmental justice and health impact analysis as part of Integrated Resource Planning (IRP) so the potential community impacts of utility investment decisions are more fully considered. ¹⁹
- Limit energy burden from powering and heating homes to not more than 6 percent of annual income for low-income households: ¹⁹
 - Increase affordability of utility services through expanded “Percent of Income Pilot Programs” and through minimum allocation levels for utility investment in low-income energy efficiency programs. ¹⁹
 - Direct additional funding to the Michigan Utility Consumer Representation Fund (UCPF) to provide resources to intervenors in MPSC proceedings who represent the interests of low-income communities. ¹⁹
- Advocate for utility companies to provide fair outage compensation for families throughout Michigan experiencing power outages to pay for spoiled food, medicine, generators, and hotel accommodations. ²⁰
- Support permanent moratorium on power shutoffs. ²⁰
- Ban investor-owned utilities from using customers’ money for lobbying and campaign contributions. ²⁰
- Ensure Michiganders receive the millions of dollars in funding from the federal government such as those available through the Inflation Reduction Act for energy efficiency home upgrades, rooftop solar, home battery modules, electric appliances, etc. ²⁰

Please see http://mleead.umich.edu/Coec_Fact_Sheets.php for the citations included in this factsheet. The University of Michigan Lifestage Environmental Exposures and Disease Center (M-LEEd) Community Engagement Core (CEC) promotes collaboration among UM environmental health researchers and communities to advance knowledge of environmental health issues that affect community members in Detroit and Southeast Michigan.

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