



Energy Challenges and Solutions in Detroit and Beyond

The Issue and Action Steps for Industry and Community Members



Why does fair energy access matter?

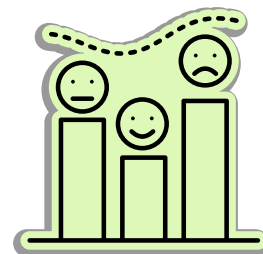
Fair energy access means that the benefits of energy, as well as the costs and pollution created by our energy system, are distributed fairly. Currently, the costs and pollution from energy systems are concentrated in low-income communities of color, while often other communities benefit more.¹

Fair energy access would mean:

- Fair access to clean energy
- Fair access to environmental action and clean energy programs
- Addressing health harms BIPOC communities have experienced from fossil fuel energy production.^{2 8-11}

Why is fair energy access important?

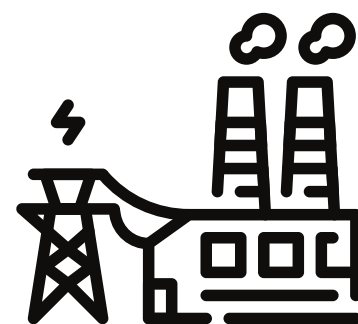
Easy and affordable access to clean energy helps us all to live safe and comfortable lives. Currently, most energy in Michigan comes from fossil fuels such as coal, gasoline and methane (fracked or "natural" gas).³



Pollutants are released in the process of creating energy from fossil fuels. This is harmful to the environment and people's health.²²

Communities located near power plants and storage facilities are exposed to higher levels of the pollutants they release and experience worse health outcomes as a result. The same communities pay a larger part of their income to cover their energy expenses (See maps on next page for more detail).^{4 12 13}

We refer to this as energy burden. Fair energy access assures that pollutants and other costs of energy production do not disproportionately fall on those who benefit the least from the energy produced.





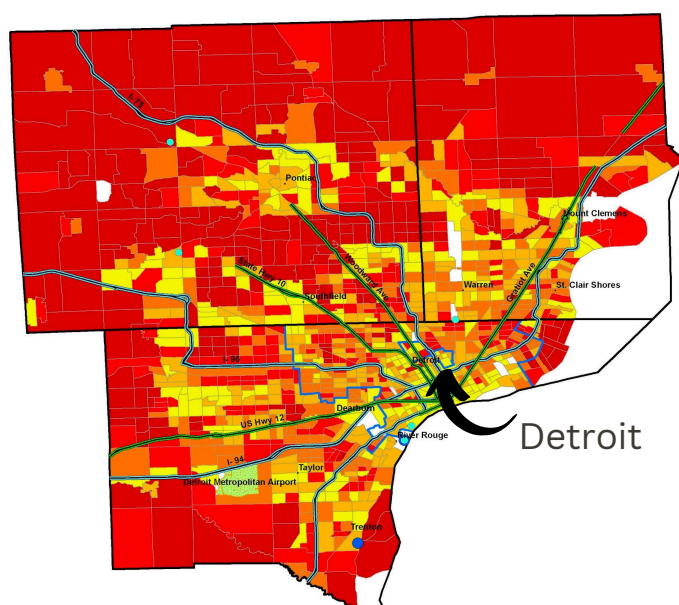
What does energy burden look like in the Detroit area?

The two maps below compare electricity use (consumption) and annual health costs per person due to air pollution from DTE power plants in the Detroit metropolitan area.

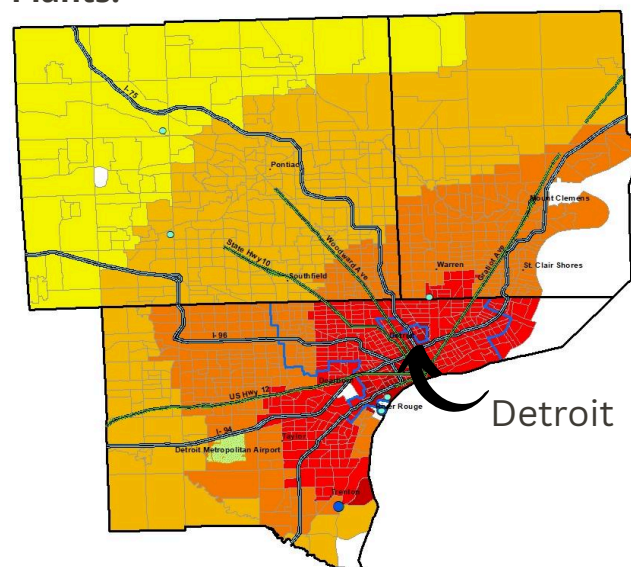
- The map on the left shows high electricity use (in red) in the suburbs and lower electricity use in areas closer to Detroit. The homes in red areas are using 2 times more electricity than homes in yellow areas.
- The map on the right shows annual health costs per person due to air pollution from DTE's power plants. In this map, areas closer to Detroit are redder—meaning they have higher annual health costs due to air pollution. These costs are higher even though they use less electricity.

Side-by-side, these maps illustrate the concept of energy burden. Those using the least amount of energy (yellow, on the left) experience the highest annual health costs per person due to DTE's power plants (red, on the right).

Residential Electricity Consumption



**Annual Health Costs per Person
Attributable to Air Pollution from DTE Power
Plants.**



High

Low



How do we move toward fair energy access?

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.²³



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?

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



Summary: What does this mean for me and my community?

Fair energy access means the benefits and burdens of energy production are distributed proportionately across different demographic groups and geographic locations, and that those burdens should be reduced as much as possible. Some ways we can achieve this goal are³:

- Require power companies to develop a plan with clear benchmarks and accountability to assure more equitable distribution of burdens and benefits.
- Require energy producers to assess the community health impacts of pollutants emitted through energy production as part of “affordability” and “safety” in the IRP, and include them as costs in the assessment of energy costs.
- Require energy producers to use cleaner, safer forms of energy production (e.g. solar).
- Assure that unfairly impacted communities wield power in the decision-making process.
- Assure that long-overburdened communities of color have a real voice in decisions about energy production.
- Assure that lower income and communities of color have access to clean, safe, affordable energy.

Please see http://mleead.umich.edu/Coec_Fact_Sheets.php for the citations included in this factsheet.

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