

Assessing Health Impacts of DTE's 15-Year Energy Plan

And how a Public Health approach can advance Environmental Justice in the COVID context

MODERATING



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Health Impact Assessments as a tool for Energy & Public Planning

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Intros & Acknowledgments

WORK
FOR ME, DTE!



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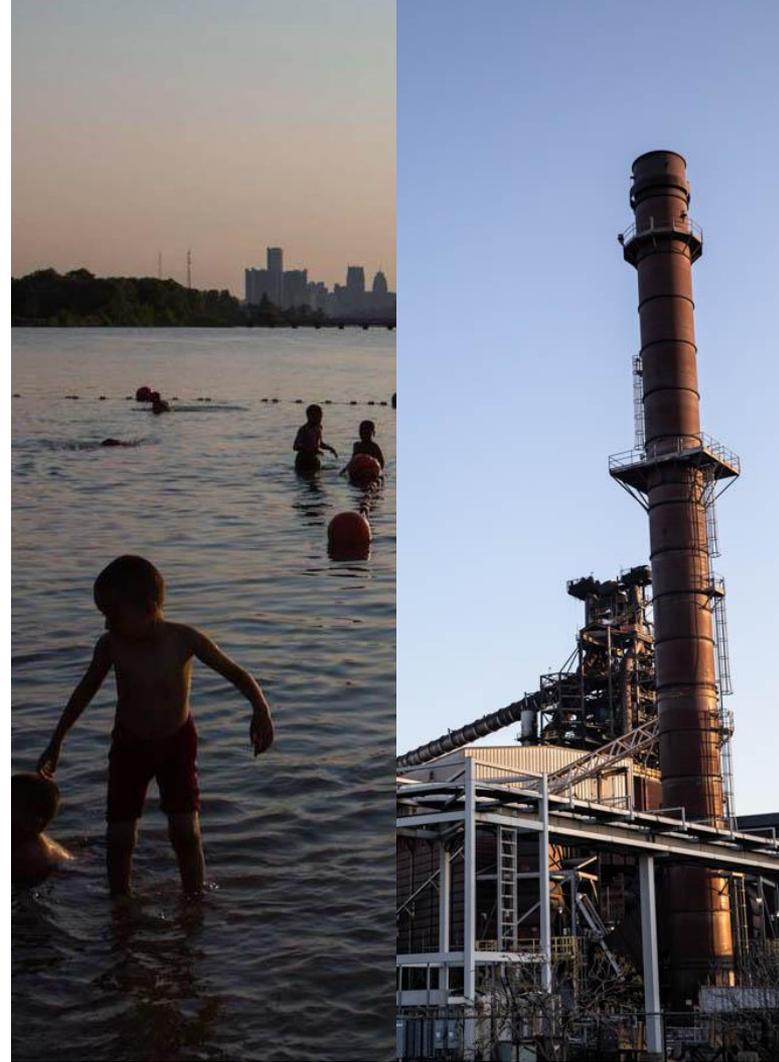
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Welcome

- Thinking about energy, air pollution, health impacts & equity
- Looking at fundamental cause and cumulative risk
- What is cumulative impact? What does science say about it? What is the legal framework?
- What is the "precautionary principle" and how does it relate to this story?



What are health impact assessments?

- Consider health impacts of proposals BEFORE decisions are finalized and implemented
- Information about likely/probable health impacts to inform the decision





Summary: Health Impact Assessment of DTE IRP

The benefits of energy production are disproportionately realized in surrounding areas.

Health costs associated with exposure to air pollution generated by DTE power plants are not currently considered as part of the decision making process for energy planning.

HIAs as part of democratic decision making

Include recommendations to:

- 1) Reduce adverse health impacts,
- 2) More equitably distribute health costs & benefits



Why did MEJC get into HIA work around DTE's IRP?



What is an Integrated Resource Plan?



Dan Scripps



Sally Talberg



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“An Integrated Resource Plan (IRP) is a roadmap for how an electric utility will meet its future electricity needs to serve customers in a cost-effective, reliable manner. A plan addresses issues such as the utility’s expected customer demand, retirement of existing power plants, and the timing and amount of new electricity sources such as natural gas fired generation and renewable energy. A plan also addresses programs that assist customers in reducing their energy waste, which can help to lower utility bills, increase electric reliability, and positively impact the environment now and well into the future. **An approved IRP allows for the utility to obtain pre-approval for the recovery of costs of specific near-term projects** proposed in the plan. Public Act 341 of 2016 requires all investor-owned utilities to submit IRPs to the Michigan Public Service Commission (MPSC or Commission) for review and approval.”

https://www.michigan.gov/documents/mpsc/DTE_IRP_Issue_Brief_041520_687227_7.pdf

Energy Democracy: Energy decision-making

1. What: Total investment costs of DTE = rising costs of bills
2. How: Direct lobbying and “soft money” in foundation dollars
3. Who: Energy consumers are locked out → Shutoff numbers
4. Why: Have a voice vs. have a say – direct and unmitigated pathway to decision-making through interventions, public hearings

HEALTH
IMPACTS

ACCESS
USAGE
COSTS
RISK

TRUE COST
ACCOUNTING

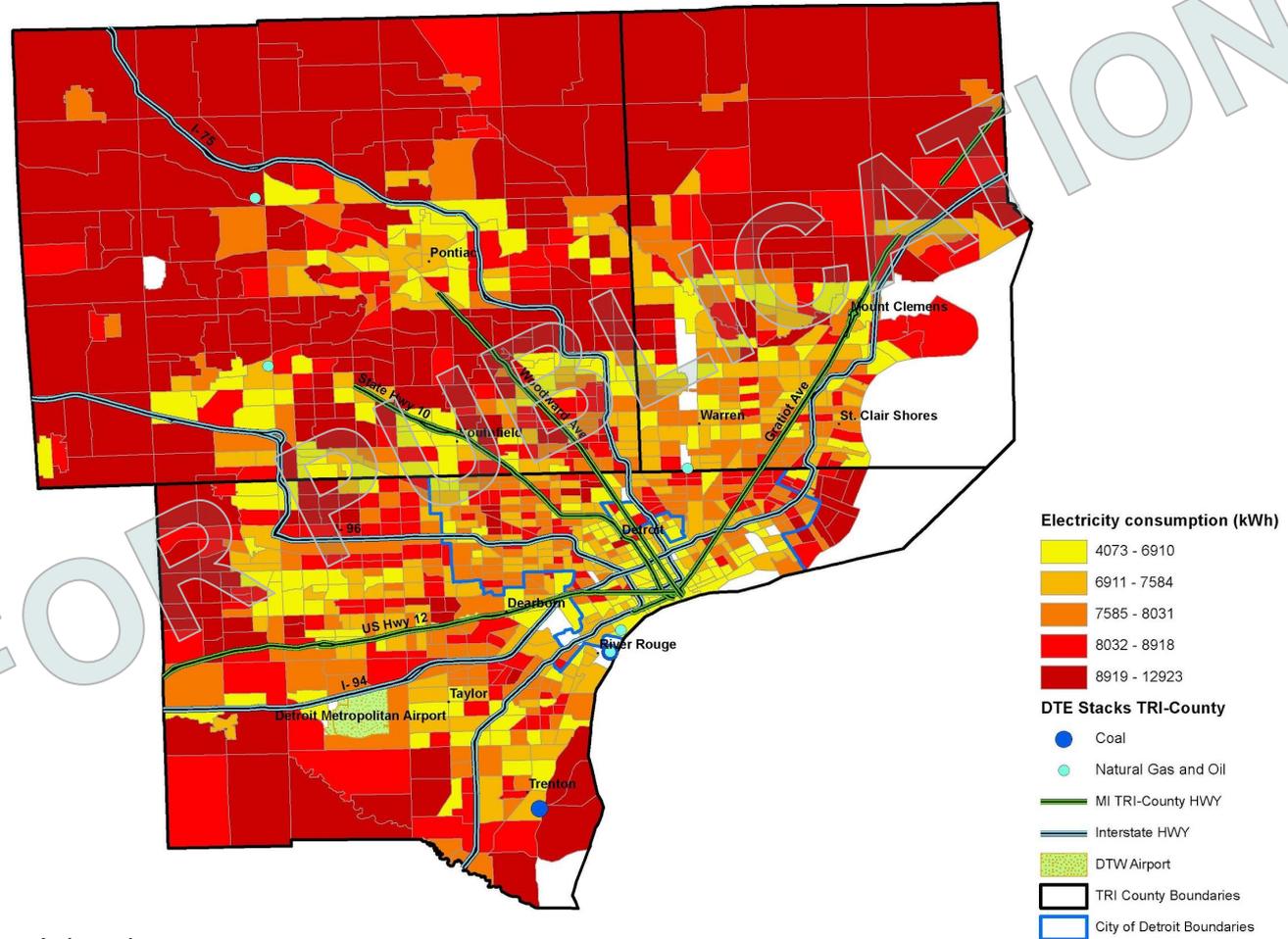
Energy Justice

Residential Electricity Consumption

Higher electricity consumption in the suburbs

Lower electricity consumption in Detroit, Pontiac, and other cities closer to Detroit.

Homes in red areas are consuming **2 TIMES MORE ELECTRICITY** than homes in yellow areas



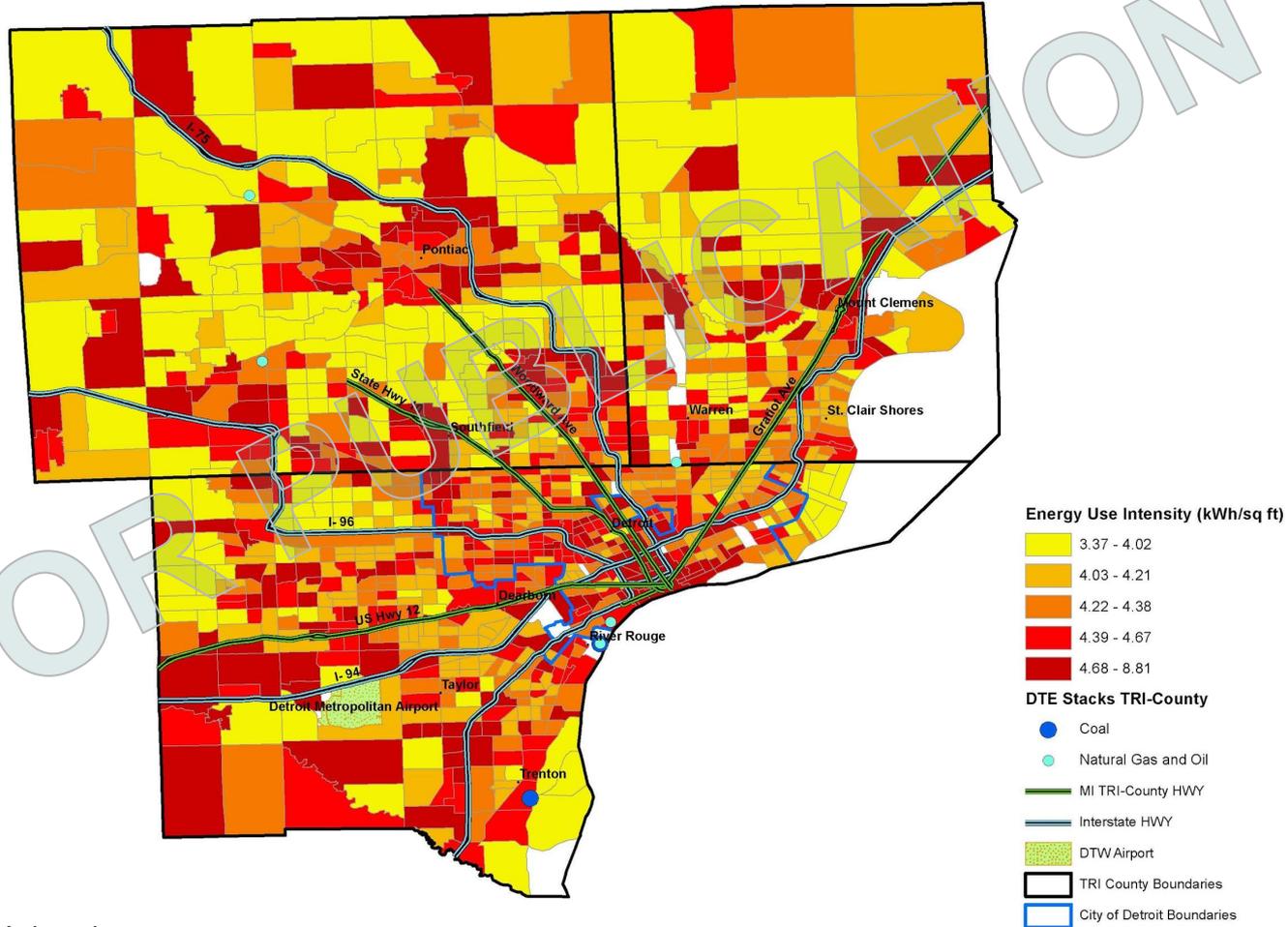
Residential Energy (In)Efficiency

This maps allows us to compare apples to apples. It normalizes electricity consumption by home size (square feet).

If homes were equally efficient, the map would be one color.

The distribution in this map is an inverse of the consumption map.

Homes in red areas are **2 TIMES LESS ENERGY EFFICIENT** than homes in yellow areas.



Residential electricity cost burdens

Average monthly cost for electricity in Michigan \$97.41 or \$1,169/year (US EIA)

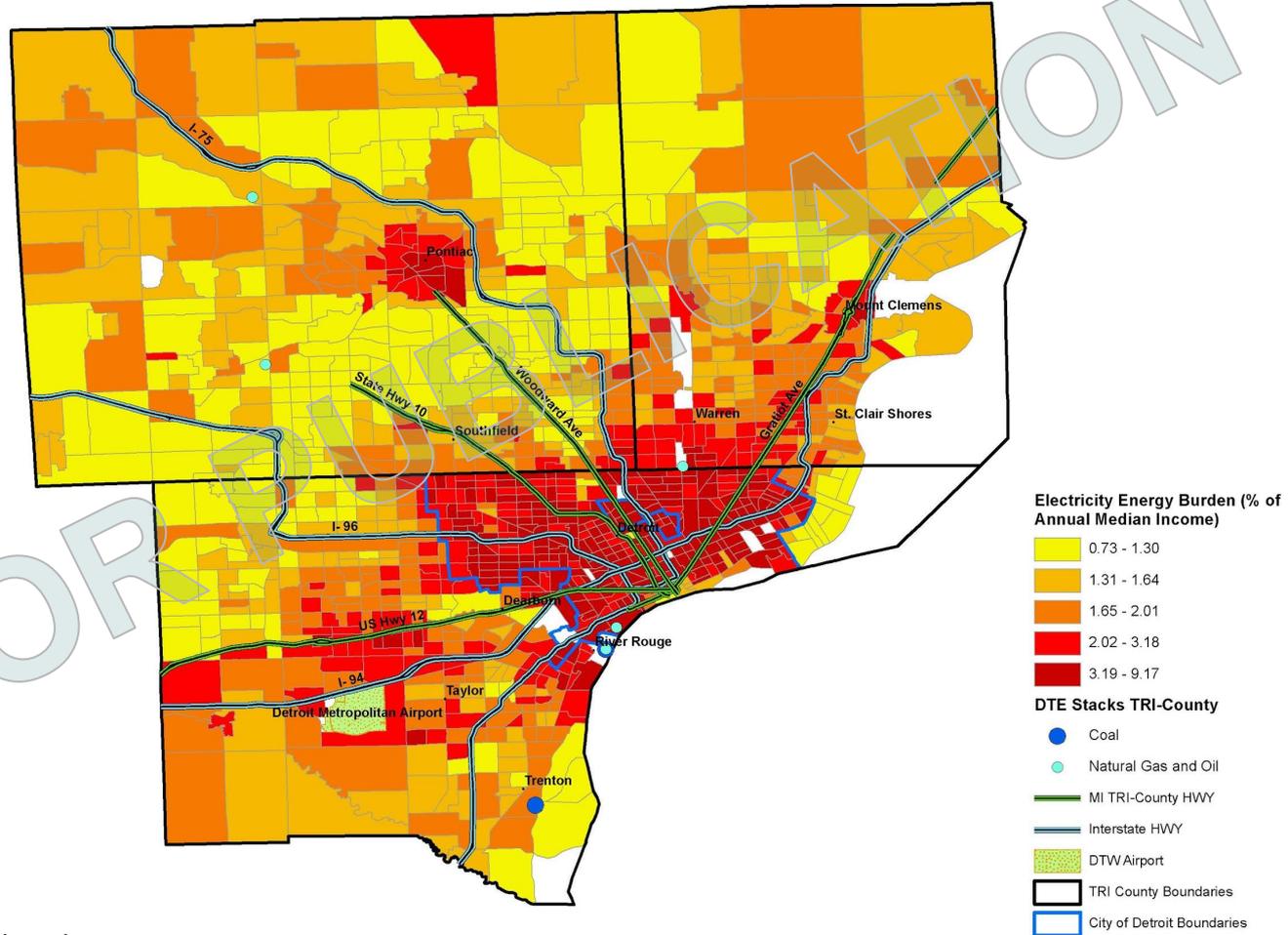
An affordable energy burden is 6% of household income (2% for just electricity)

Positive correlation between EUI and burden

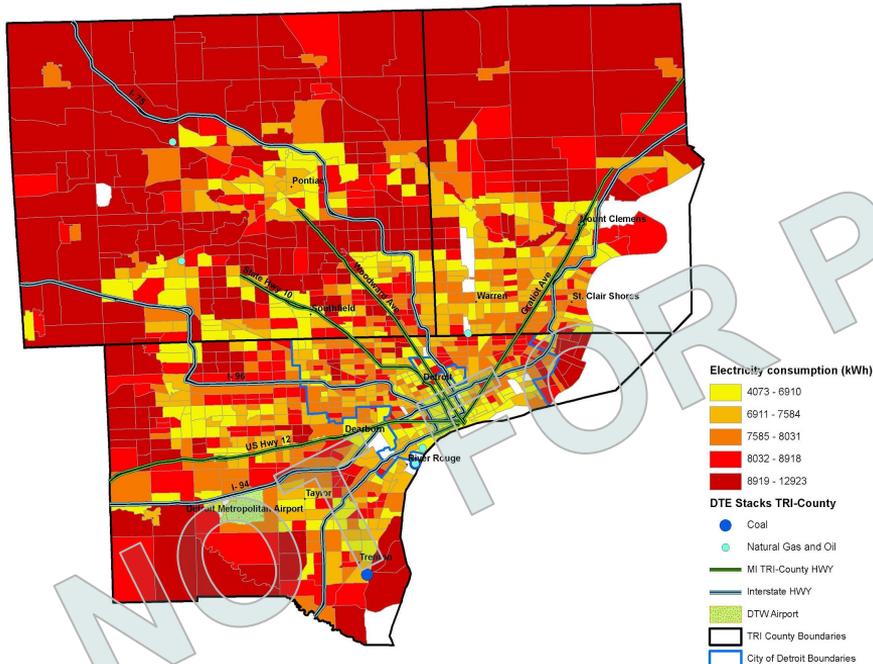
~200,000 electricity shutoffs performed per year

At the start of COVID-19, 50,000 accounts were in arrears and at least 11,060 accounts without power

Dr. Tony Reames, treames@umich.edu

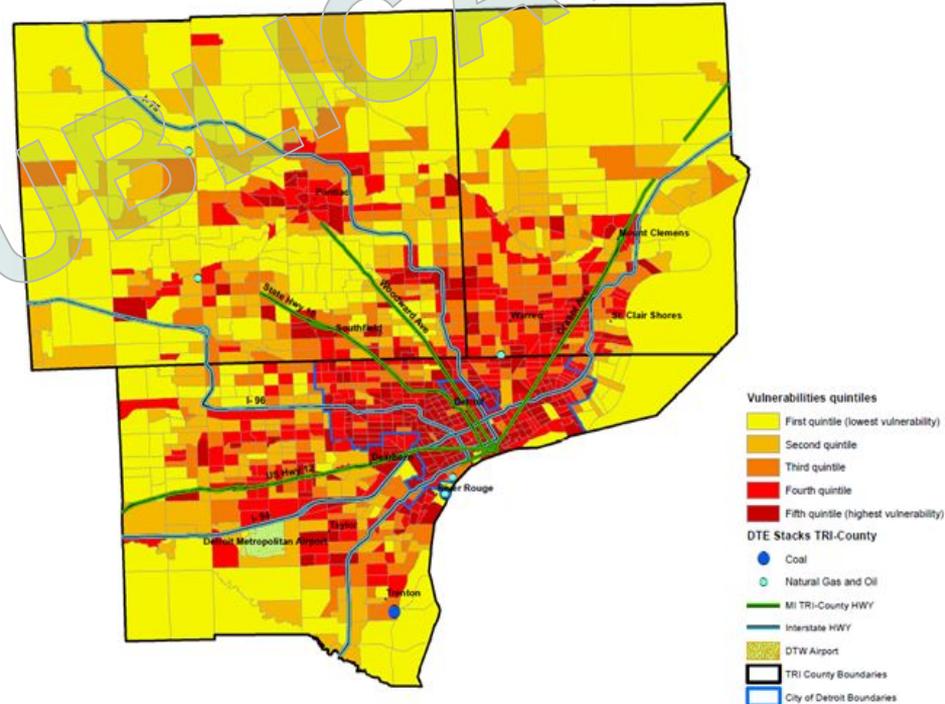


Electricity consumption

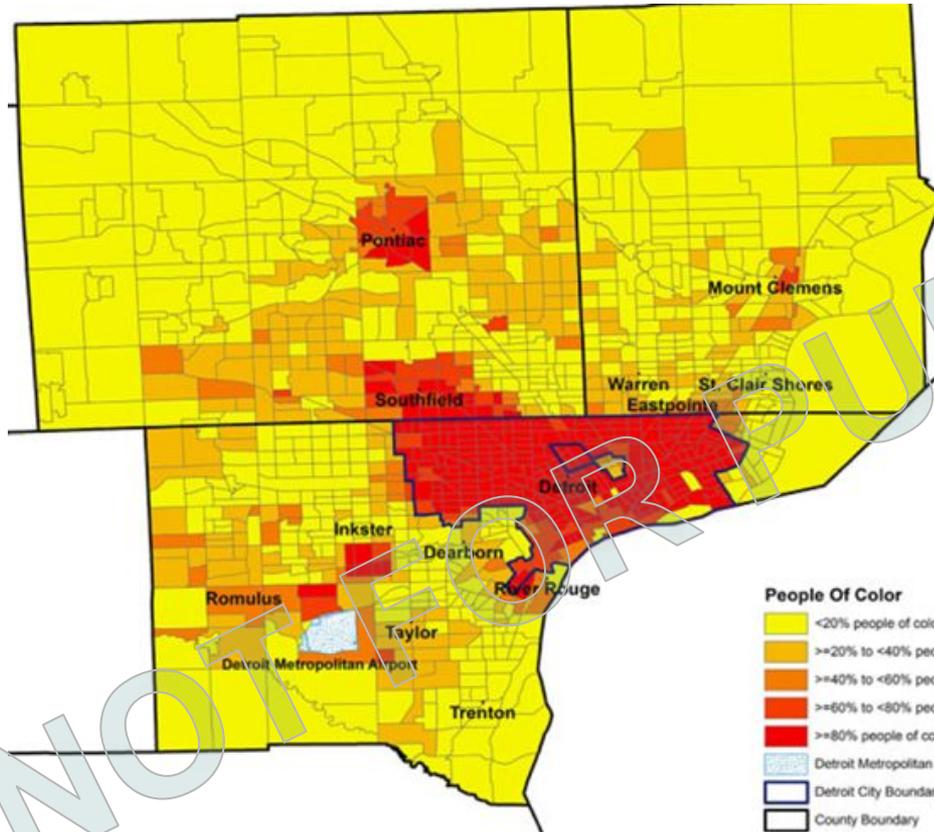


Cumulative vulnerability

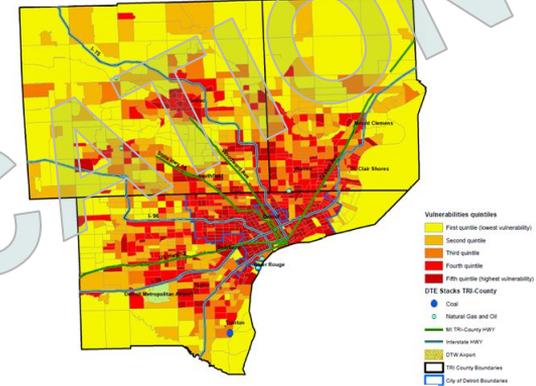
(% below poverty, % without GED, median household income (reverse), % renters, linguistic isolation, % ≤ 5 years, % ≥ 65 years)



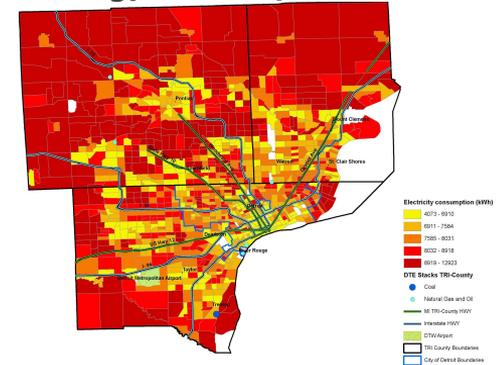
Percent People of Color



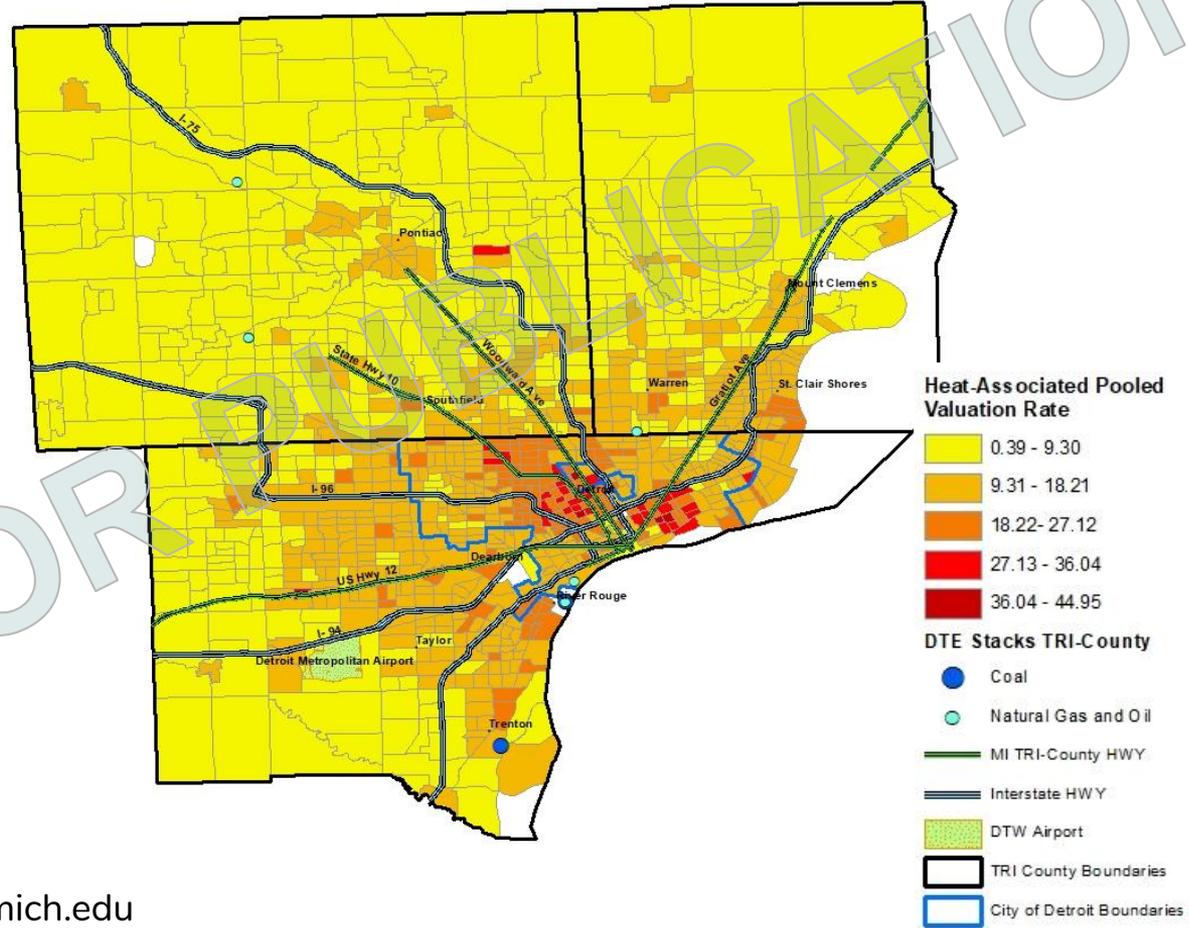
Cumulative vulnerability



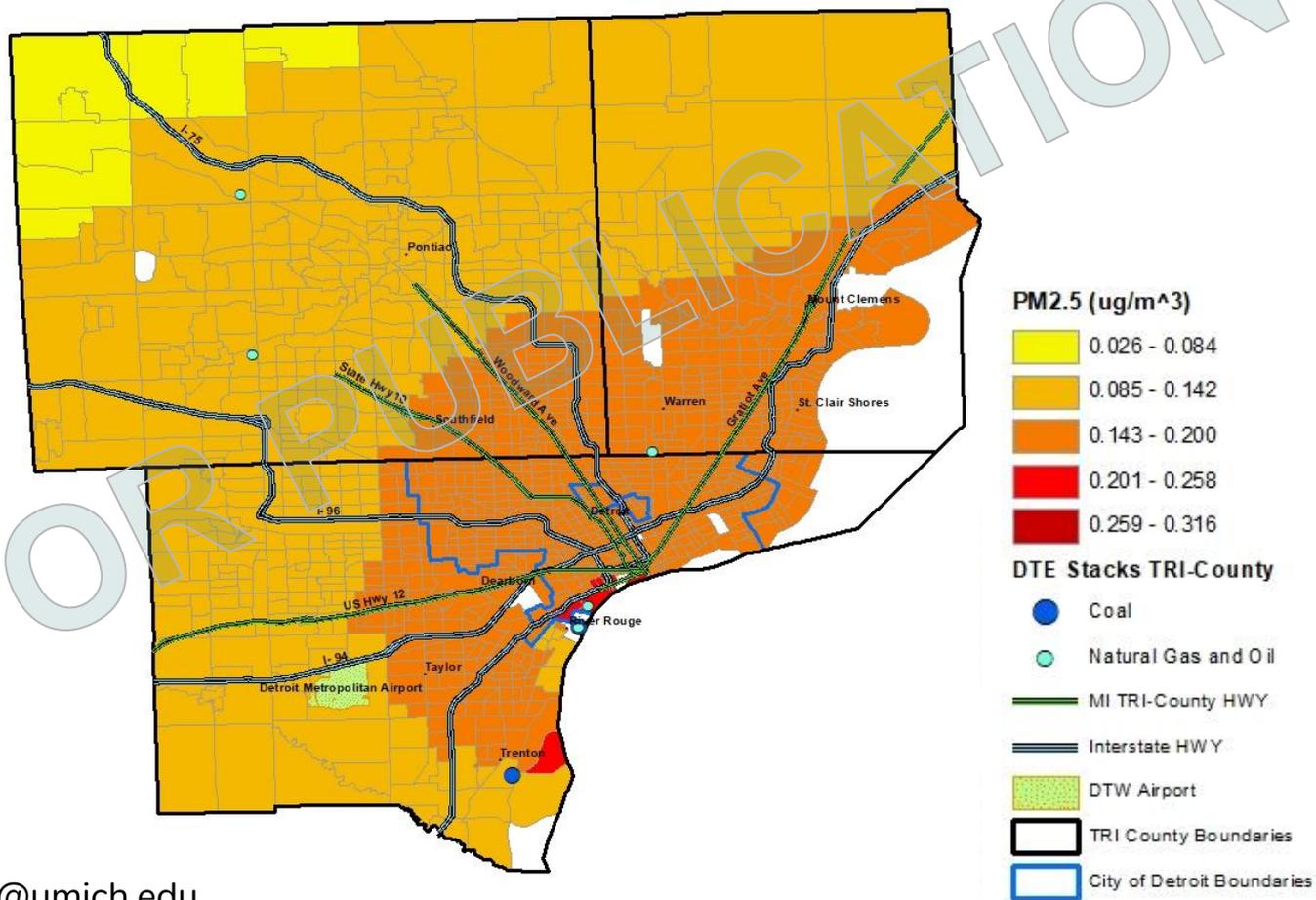
Energy consumption



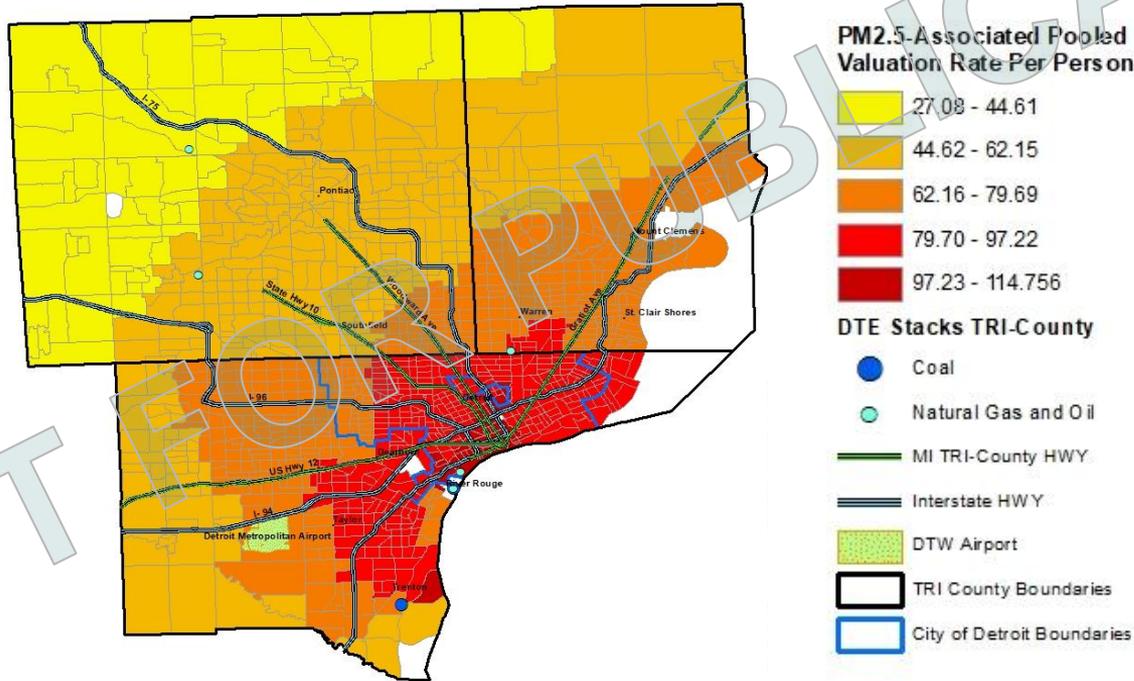
Annual health costs per person associated with extreme heat are higher in areas with *less residential air conditioning availability*



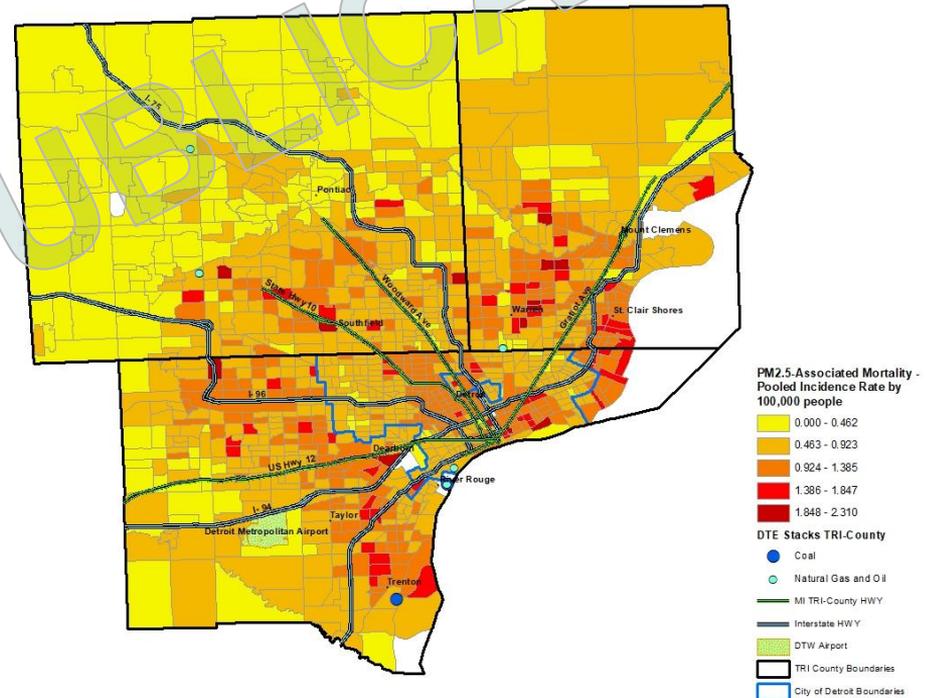
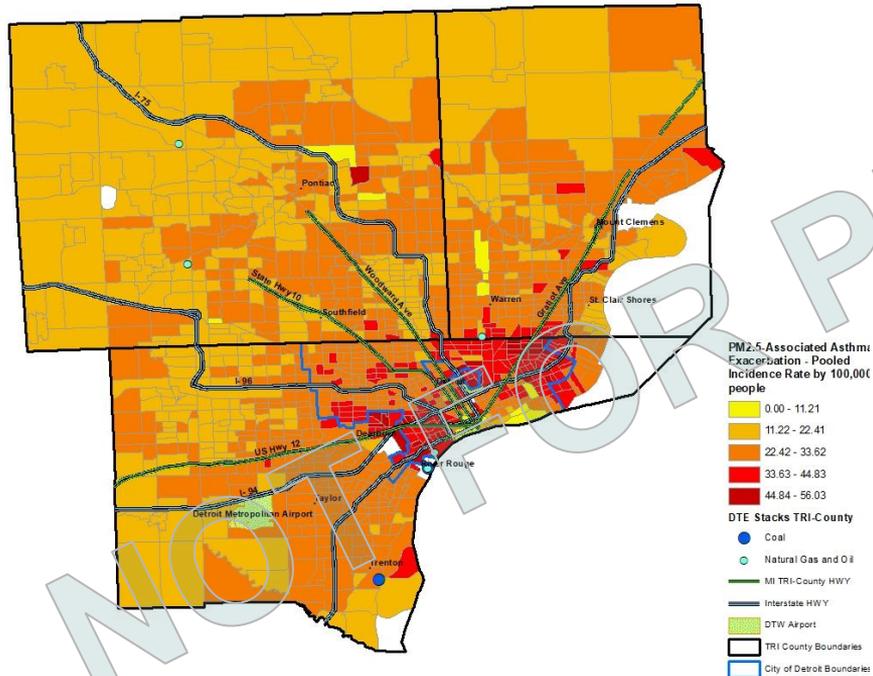
DTE Air Pollution Exposure



Annual Health Costs per Person Attributable to Air Pollution from DTE Power Plants - Age Standardized



Annual Rates of Asthma Symptom Days and Mortality Attributable to Air Pollution from DTE Power Plants





Summary: Health Impact Assessment of DTE IRP

The costs of energy production, including the health impacts of pollution generated, fall disproportionately in low to moderate income neighborhoods.

Those neighborhoods are disproportionately African American and Latinx.

The health burden - and associated costs - also fall more heavily on the youngest and the oldest members of DMA communities.



Recommendations: DTE IRP

- Health Impact Assessments should be required components of IRPs
- Allow us to see the health costs associated with current energy production and incorporate them into decision making process
- Affordability assessments should include health costs of pollution generated by energy production.



Recommendations: DTE IRP

- Safety assessments should include consideration of health impacts
- When uncertain about health impacts, cleaner, safer forms of energy production (e.g., solar) should be prioritized.
- Impacts of energy production on climate change should be considered as part of assessment of “affordability” and “safety”



Toward Energy Justice

- Health Impact Assessments are a tool to rectify energy injustice and environmental injustice
- Energy Justice means benefits and burdens distributed without respect to race/income/etc., and burdens are reduced as much as possible
- Our profit-driven, monopoly energy system, regulated by an agency who has little accountability to impacted communities, does not advance energy justice. Most impacted communities, as seen from HIA, must wield power in the decision-making process.



Links to resources

CAPHE's Public Health Action Plan: <http://caphedetroit.sph.umich.edu/>

CAPHE's Resource Manual:

<http://caphedetroit.sph.umich.edu/resource-manual-cover-page-with-full-manual/>

Emissions and health impacts in DMA:

<http://caphedetroit.sph.umich.edu/wp-content/uploads/2016/10/Resource-Manual-5.0-Pollutant-sources-Website-Version-10-4-16.pdf>

Planet Detroit - Weekly, local environmental news: <https://planetdetroit.org/>

Michigan Environmental Justice Coalition: <https://www.michiganej.org/>

Support Work for Me DTE: <https://work4medte.good.do/covid-19/MPSC/>



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