



# Environmental Equity & Justice in Energy Planning

Carbon Solutions LLC

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Jan 2021

## Executive Order 14008, Tackling the Climate Crisis at Home and Abroad

- **Delivers 40 percent of the overall benefits** of relevant federal investments to disadvantaged communities, and
- **Tracks performance toward that goal** an Environmental Justice Scorecard.

Jul 2021

## Interim Guidance about Disadvantaged Communities (DACs)

- **8 goals involving “DACs”**, including increasing access to clean energy technology, increasing low-cost capital, and increasing clean energy jobs and job training.
- Variables: Fossil Dependence (2), Energy Burden (5), Environmental & Climate Hazards (10) & Vulnerability (socioeconomic, housing burden, transportation burdens, etc.) (19)

Jul 2022

## Where are we now?

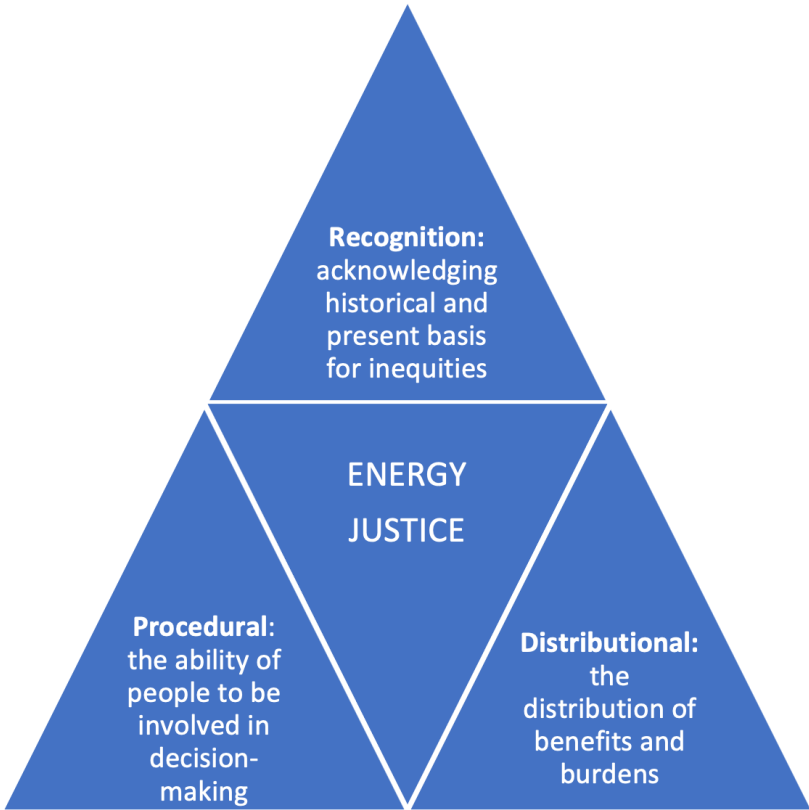
- EJ Screen tool for Climate Hazards & Beta-version Climate and Economic Justice Screening Tool
- Department-specific initial guidance
- (Ex. CarbonSAFE) Increasing requirements to address **Environmental Justice** (EJ), **Diversity, Equity & Inclusion** (DEI), and **Justice40**



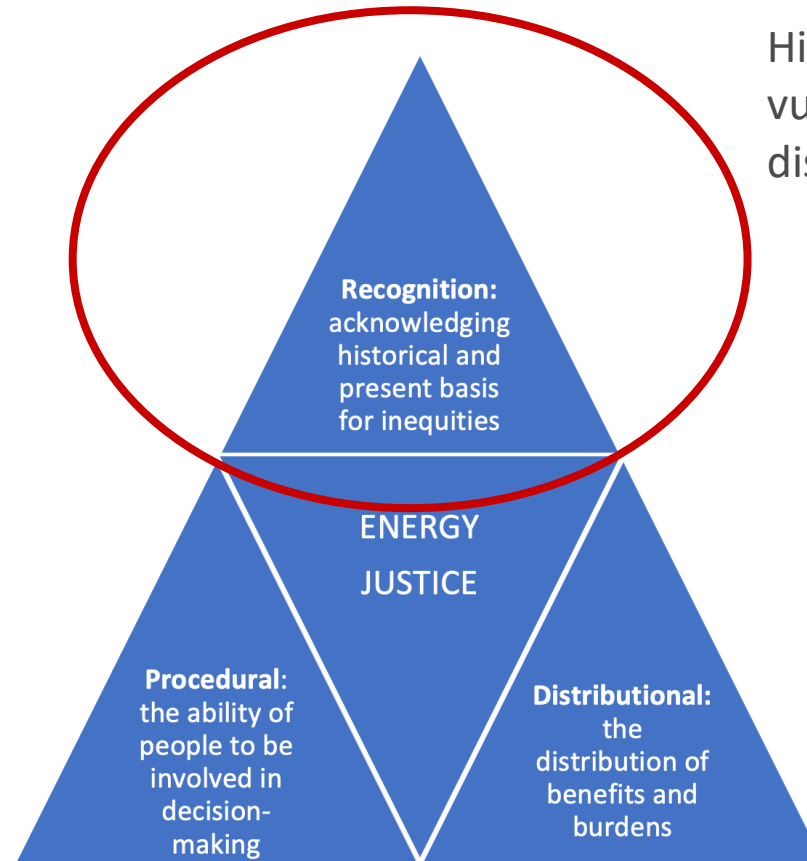
# What is Environmental Equity & Justice?

The goal of many government policies is to combine distributional, recognition, and procedural justice.

Some groups are working to combine these efforts in order to achieve restorative justice: long-term planning that ensures equitable distribution of risks and advantages related to the energy transition.



Carley, S.; Konisky, D. M. The Justice and Equity Implications of the Clean Energy Transition. *Nature Energy* 2020 5:8 **2020**, 5 (8), 569–577. [10.1038/s41560-020-0641-6](https://doi.org/10.1038/s41560-020-0641-6).



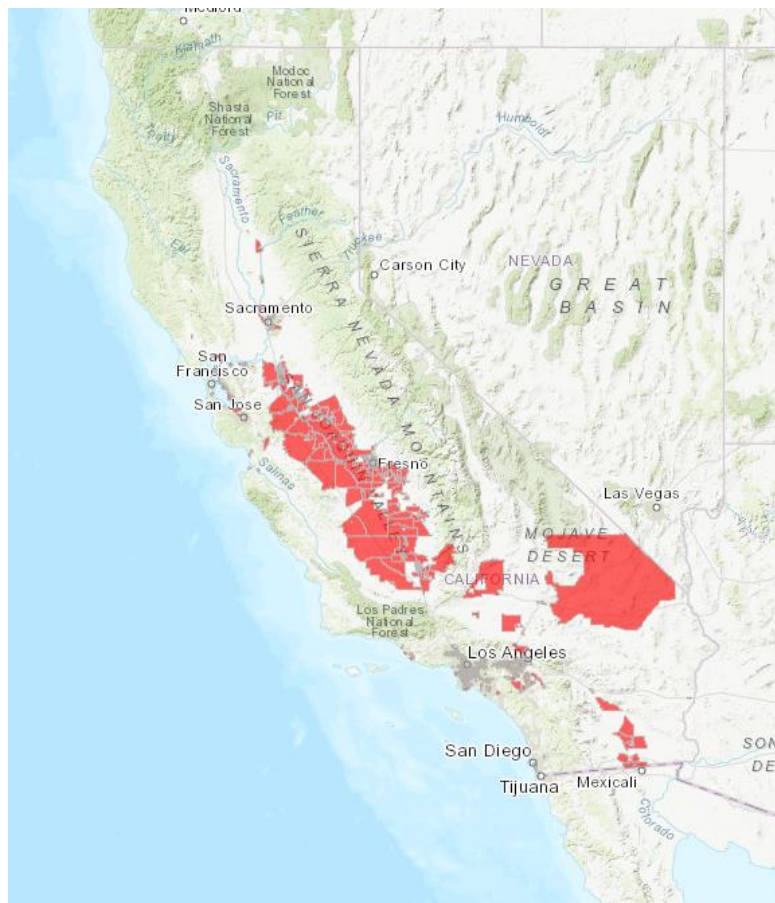
Historically disadvantaged +  
vulnerable or burdened =  
disadvantaged.

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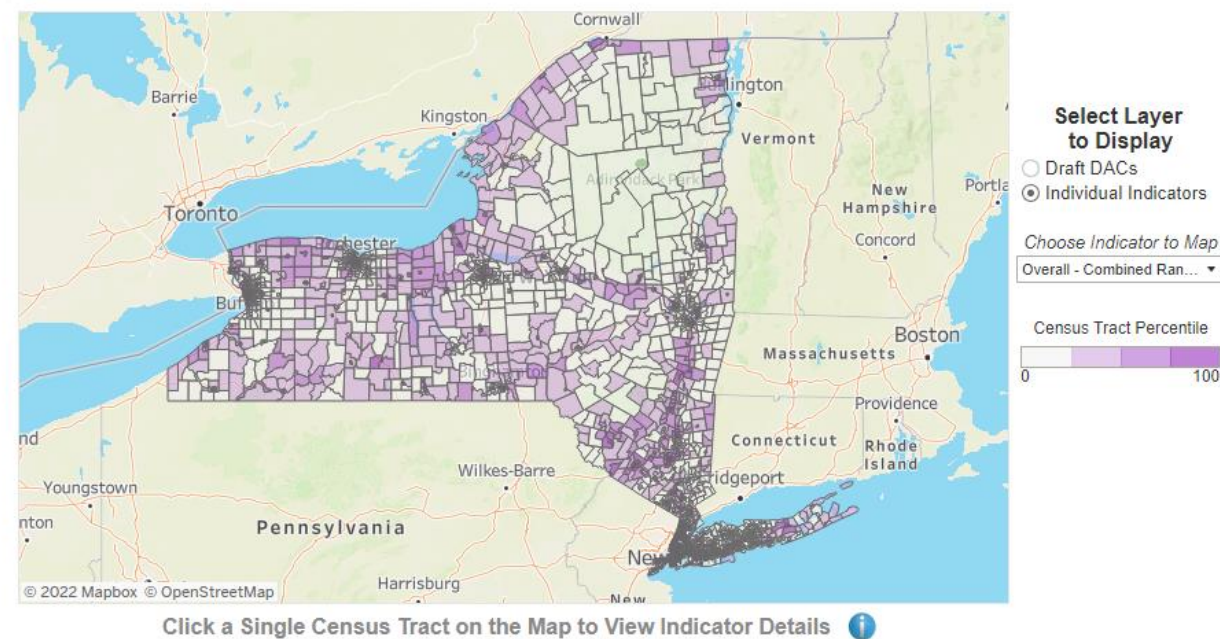
# Towards a definition of a Disadvantaged Community (DAC) (also frontline, overburdened, under-resourced, underserved)



## State definitions: CA (straight percentile) vs. New York (urban v rural)

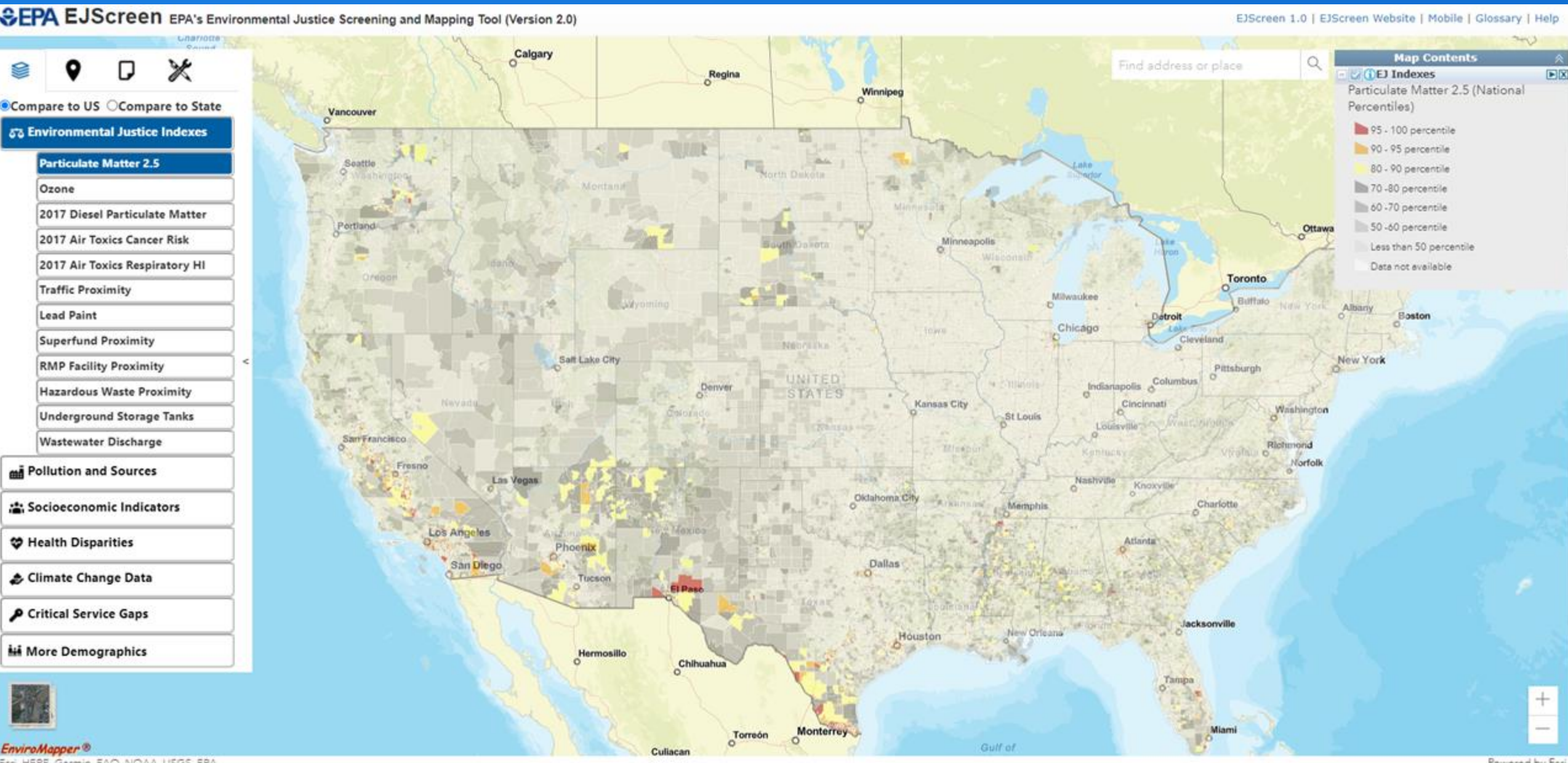


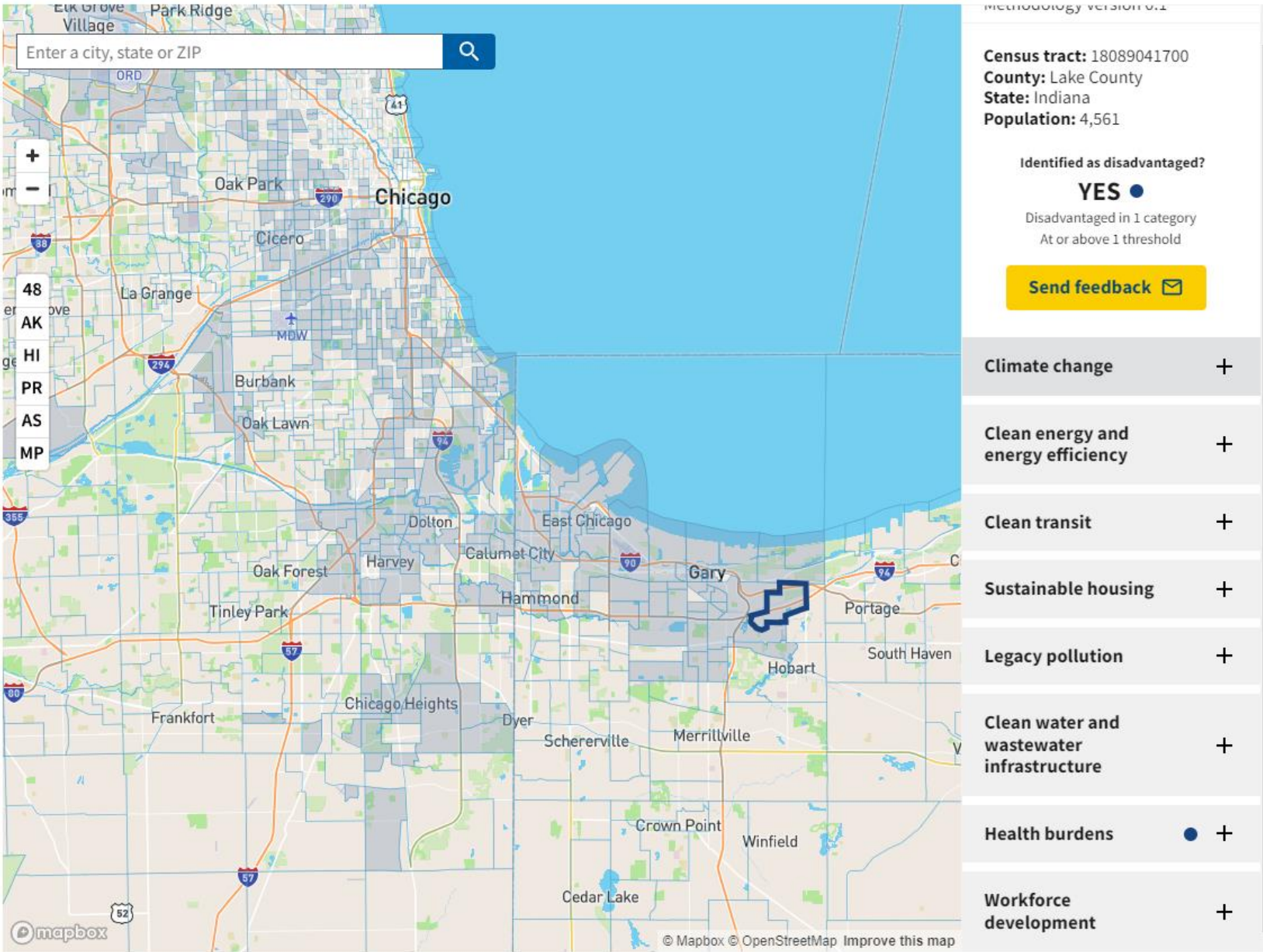
<https://www.arcgis.com/apps/View/index.html?appid=c3e4e4e1d115468390cf61d9db83efc4>



<https://climate.ny.gov/Our-Climate-Act/Disadvantaged-Communities-Criteria/Disadvantaged-Communities-Map>

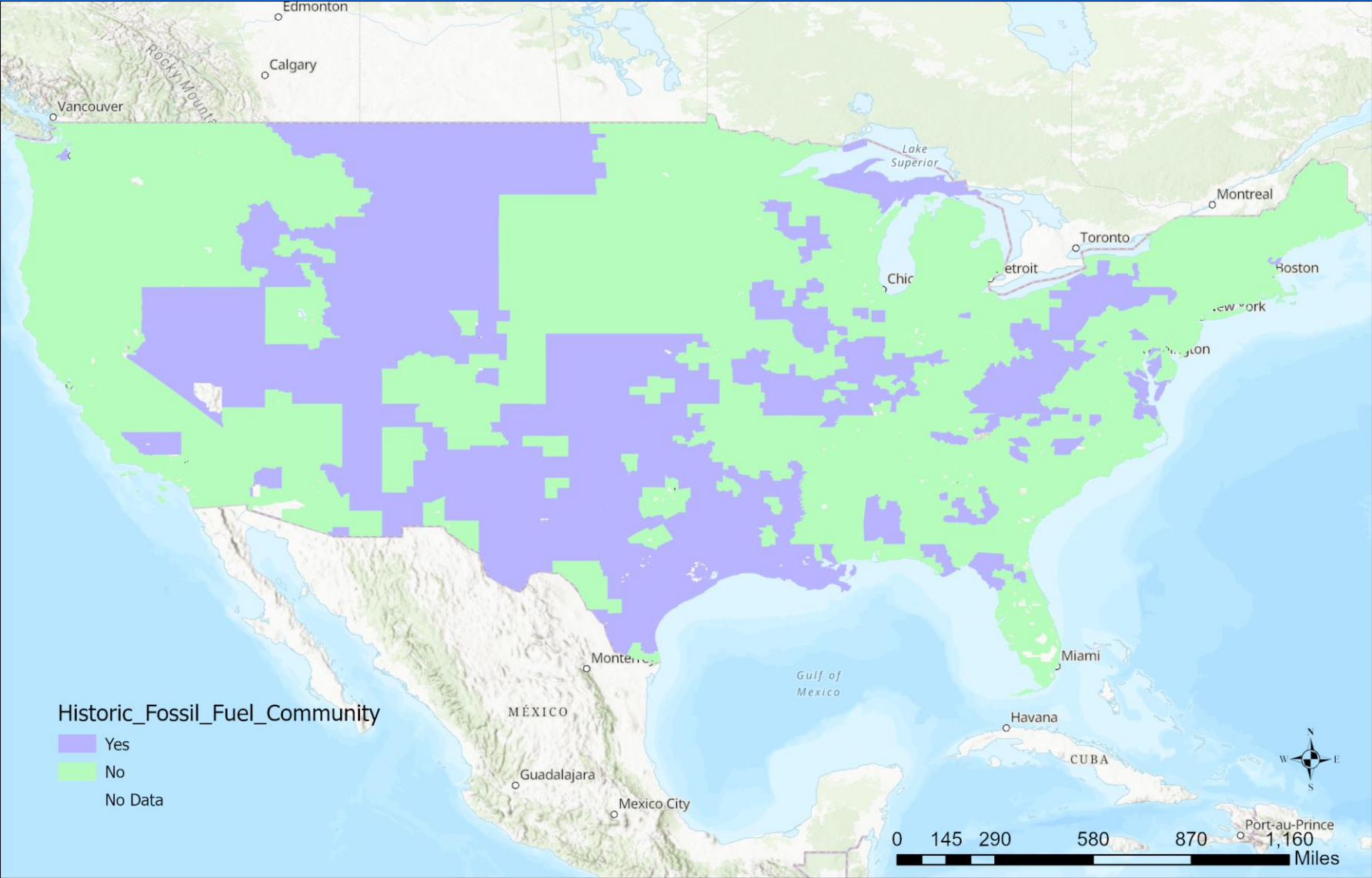
# Federal Data – EJ Screen tool





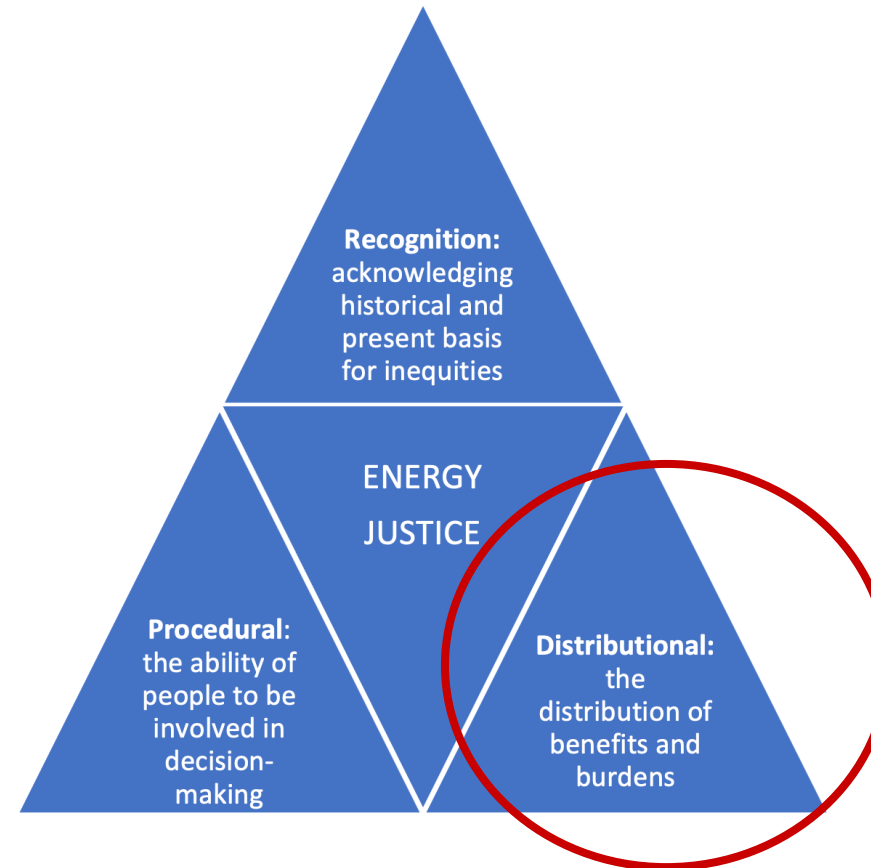
# Climate & Economic Justice Screening Tool (CEJST)

# Just transition: Economically important for jobs



Fossil Energy Census Tracts  
(Interagency Working Group for Coal and Power Plant Communities, 2021)

NOSTRA, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS, Esri, Garmin, FAO, NOAA, EPA



Justice40 Initiative: 40% of the benefits must go to certain communities.

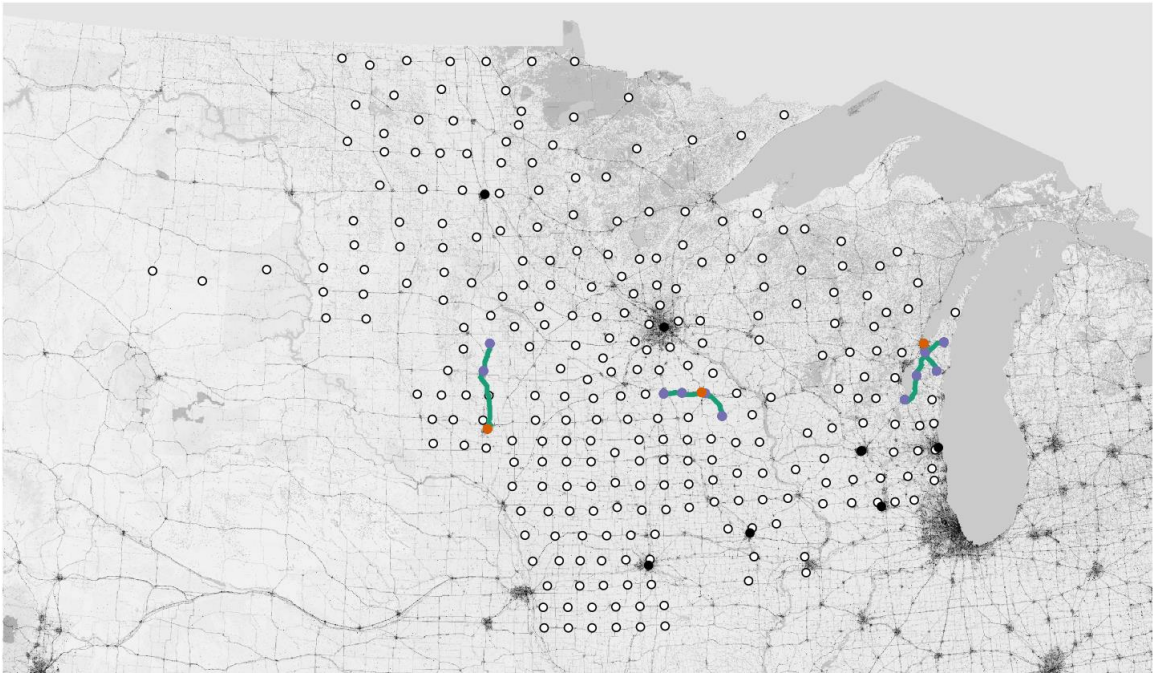
Note! Every agency can define this, and it may or may not be tied to monetary benefits/incentives.

Gathering data is a major issue for some agencies, ex: utility shut offs.

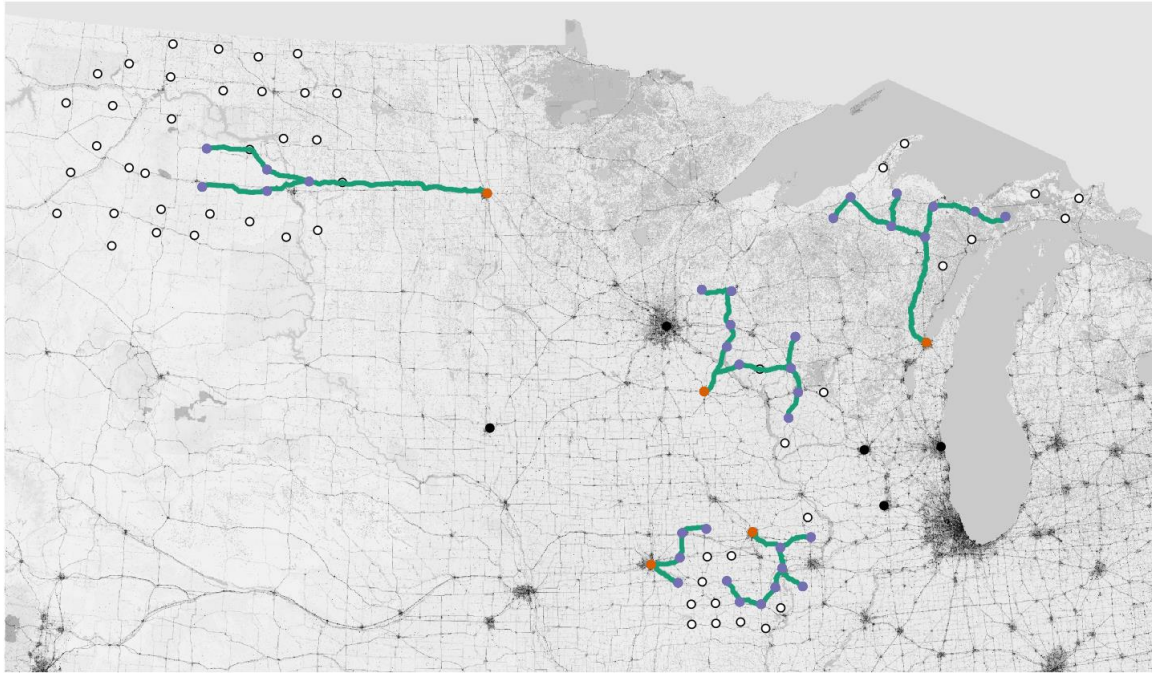
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Avoiding Fossil Fuel Communities



Targeting Fossil Fuel Communities



Legend

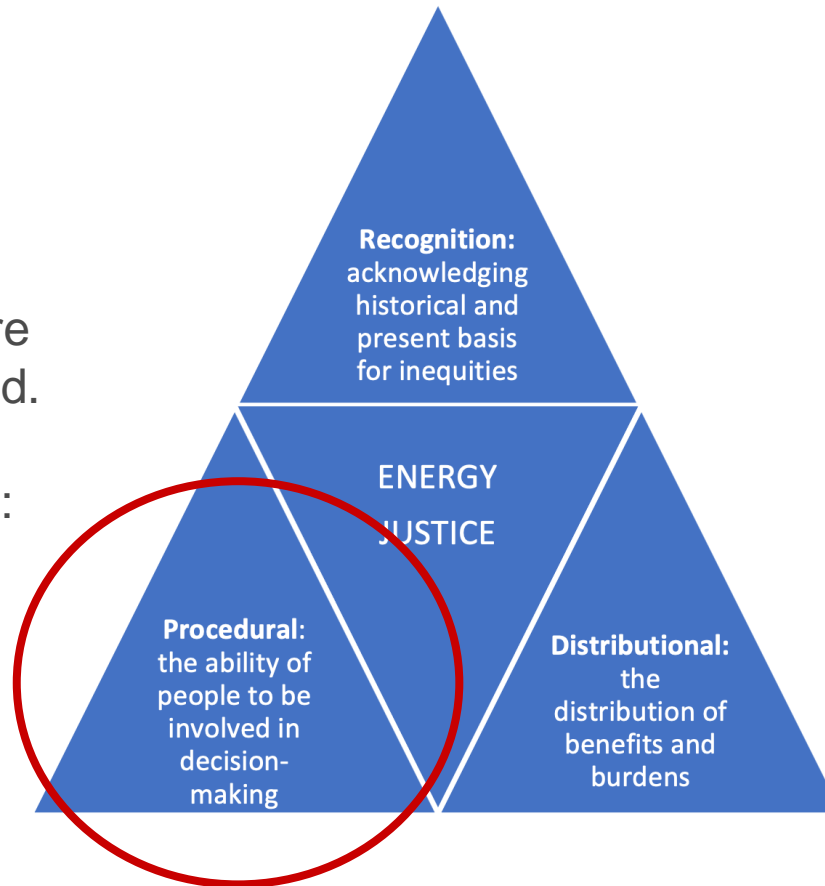
- Unused wind resource site
- Constructed wind farm
- Unused demand center
- Connected demand center
- Constructed transmission



# Procedural Justice: Increasingly required for grants

Requirement that communities are consulted before work is proposed.

Outcomes community dependent:  
Fossil jobs v. air quality.



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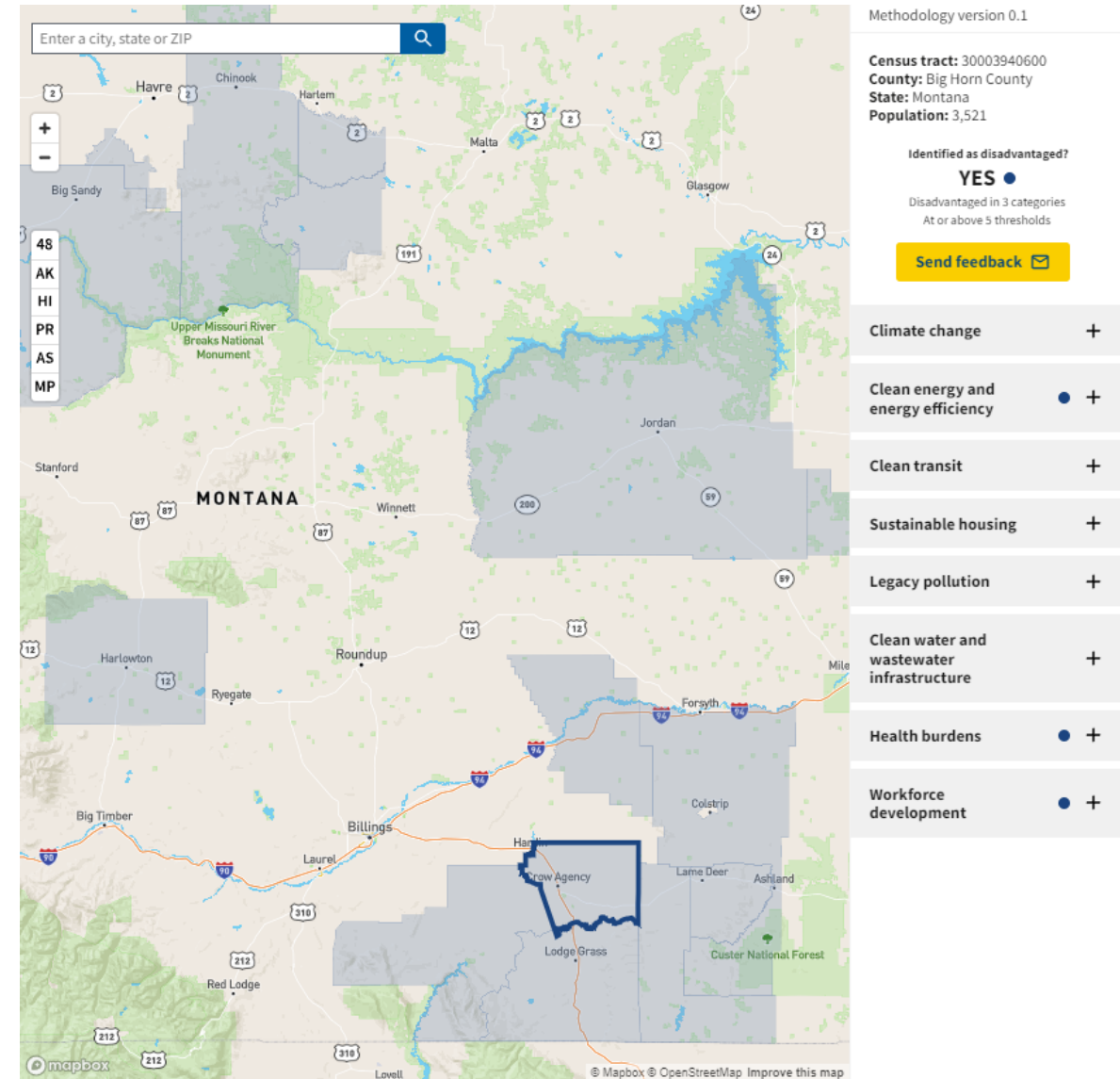


# Integrating Tools with Communities

This is the Beta Climate and Economic Justice Tool.

Ways to increase procedural justice:

- Public participation GIS,
- Local subject matter expert/university partnerships, and/or
- Allowing local communities to help determine costs and benefits.



[Download the data sources](#) \* used in the CEJST (.csv, .xlsx, .pdf that describes how to use the list, and a codebook, 741MB unzipped). Last updated: 05/04/22.



Leverage currently available data such as emissions, pipelines, environmental health, vulnerability, demographic characteristics to identify locations

Work with community members/subject matter experts and Public Participation GIS to identify priorities, potential benefits

Deploy subset of model scenarios for model/data refinement

## Siting Hydrogen for Equity and Energy Justice

“We will develop a public participation geographic information system (PPGIS) framework and software called *SEEJusT* (*Siting Energy for Equity and a Just Transition*) that directly addresses energy justice.”



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
SBIR/STTR  
Programs

# Promoting Energy Justice

Department of Energy

[Energy.gov](#) » Promoting Energy Justice

For far too long, communities of color and low-income communities have borne the brunt of pollution to the air, water, and soil they rely on to live and raise their families. The clean energy revolution must lift up these communities that have been left behind, and make sure those who have suffered the most are the first to benefit.

## DOE's Role

DOE's Office of Economic Impact and Diversity will lead this effort through a new role committed to implementing President Biden's Justice40 Initiative — a plan to deliver 40% of the overall benefits of climate investments to disadvantaged communities and inform equitable research, development, and deployment within the DOE.

<https://www.energy.gov/promoting-energy-justice>

