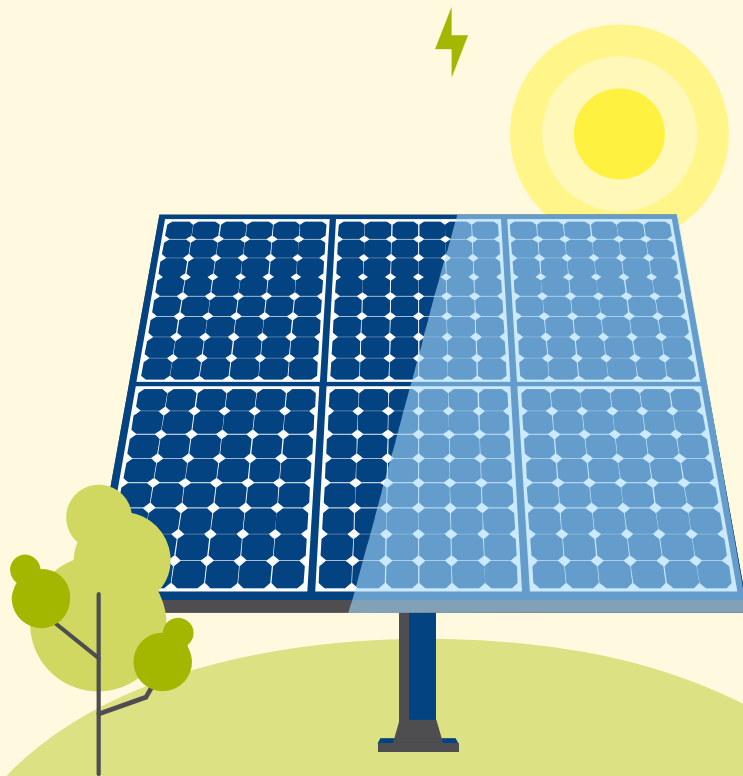




Advocacy: Community Solar

Aanvi Arora and Alexandra Tokar

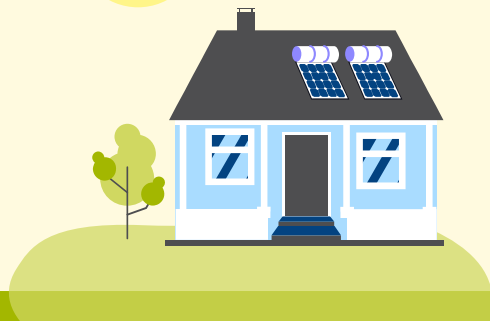




Our Research Question:

How can access to renewable energy be equalized across the state of Michigan?

Areas of focus: Ann Arbor and Detroit





Background



Ann Arbor

- Spoke to Julie Roth
 - Manager of Energy Team in Office of Sustainability and Innovations Ann Arbor
 - Progressive community; support mitigation of climate change
 - Much of community has disposable income to spend (not all)
 - Invested in and staffed sustainability office
 - Support from political leaders
-
- Also spoke to Carlee Knott, Energy & Climate Policy Coordinator at Michigan Environmental Council



Detroit

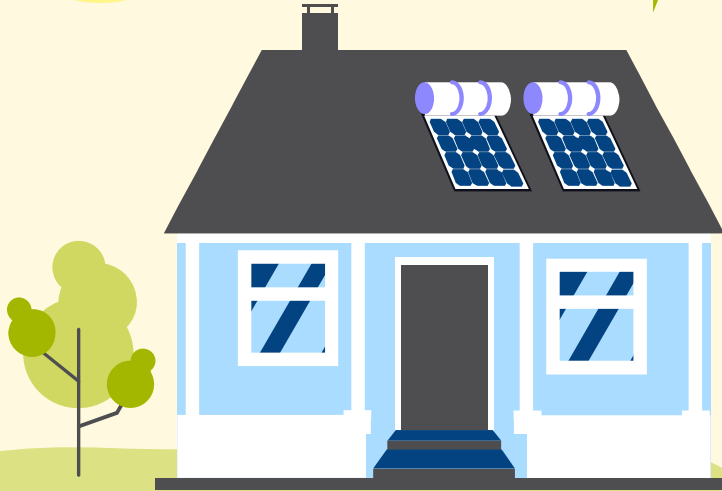
- Spoke to Kendal Kuneman, Senior Program Manager at Detroit 2030 District
- Renewable energy often not marketed to communities of color
- In lower income areas, sustainability usually not seen as top priorities
- Housing usually less energy efficient in Detroit, greater use of energy
- Advocates sometimes encouraged to say solar is harmful to communities of color
- NAACP has refuted this, has Solar Equity Initiative (Adams 2019)





01

What is Community Solar?



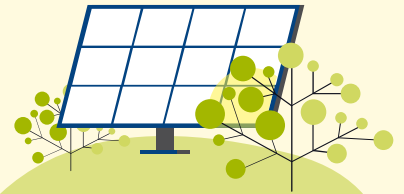
What is Community Solar?



Individual and businesses can subscribe to a portion of energy generated by the solar array

Consumers pay for a share of the electricity generated by solar project

Consumers receive a portion of dollar value generated by array as credit, which usually goes towards lowering electric bills





What Are the Benefits?



Allows individuals and businesses to access solar energy without having a system on their property

- Allows people who rent their homes, people whose homes are not suitable for solar to still use sustainable energy

Tends to be more affordable

- Solar is often a cheaper form of energy than fossil fuels
- Community solar doesn't require individuals to pay for installation on their property





How Can Community Solar Help Equalize Access to Renewable Energy in Michigan?




Reducing costs to build solar panels

Diminishes one of great barriers to adopting solar

Allows individuals in low income households and communities to access solar energy and its benefits

No paying expensive upfront installation costs for solar panels


Especially important since many rent homes



Tends to be cheaper than fossil fuel energy in the long term, helps minimize energy costs

Utilize public spaces, for the public

Not another instance in which disadvantaged/marginalized communities are displaced for the sake of new development. Community solar would be constructed on pre-existing public spaces in a non-disruptive way.





What Are Current Michigan Community Solar Laws? What Influences Lawmaking?



Development requires enabling legislation

Does not currently exist in Michigan

Strong lobbying groups

DTE and Consumers Energy are large utility companies

Independently owned community solar projects currently also not permitted



DTE has MI Green Power Plan

Customers pay more to support DTE investment in wind and solar

Largely only accessible to more affluent subscribers (Adams 2019)

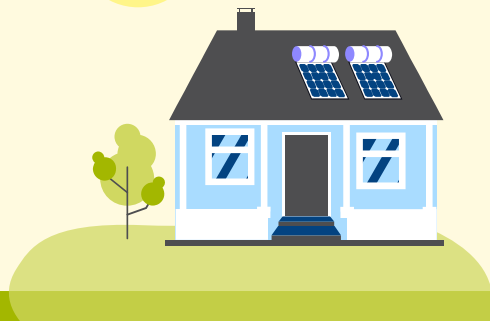




What Changes Do We Recommend?

Passing of legislation to allow development of community solar in order to:

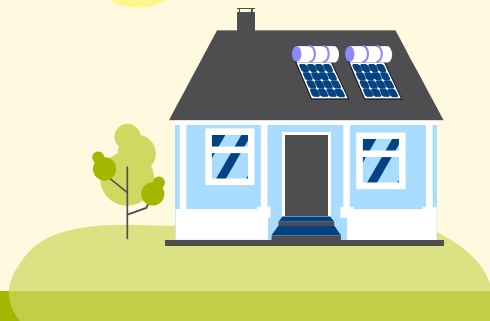
- Help low income communities gain access to renewable energy
- Lower energy costs for subscribers of all income levels





Our Project

- Created models of where community solar arrays could be put in Detroit
 - Meant to be in ways that wouldn't require extra space utilized
 - On top of existing buildings
 - Solar canopies
- Made infographic, which included the information presented here
- Left around different buildings in the university



COMMUNITY SOLAR



WHAT IS COMMUNITY SOLAR?

Community solar is when individuals and businesses can subscribe to a portion of the energy generated by a solar array. Subscribers pay for a share of the electricity generated by the solar project and receive a portion of the dollar value generated by the array as credit (which usually goes towards lowering electric bills).

WHAT ARE BENEFITS OF COMMUNITY SOLAR?

Community solar allows individuals and businesses to access solar energy without having a system on their property. This allows people who rent their homes and people whose homes are not suitable for solar to still use sustainable energy. It also tends to be more affordable since solar is often a cheaper form of energy than fossil fuels, and community solar doesn't require individuals to pay for installation on their property.

HOW CAN COMMUNITY SOLAR HELP EQUALIZE ACCESS TO SUSTAINABLE ENERGY IN MICHIGAN?

By reducing the cost to build solar panels, community solar diminishes one of the great barriers to adopting solar. Since solar energy tends to be cheaper than fossil fuel energy in the long term, community solar also helps minimize energy costs. This allows individuals in low income households and communities to access solar energy and its benefits without paying the expensive upfront installation costs for solar panels, especially for the many that rent homes and are thus unable.

WHAT ARE CURRENT COMMUNITY SOLAR LAWS IN MICHIGAN?

The development of community solar requires enabling legislation which does not currently exist in the state of Michigan. Independently owned community solar projects are currently not permitted in Michigan. A property is prohibited from producing more than its own annual kilowatt/hour consumption. The surplus energy production is non-transferrable and must be bought back by the utility.

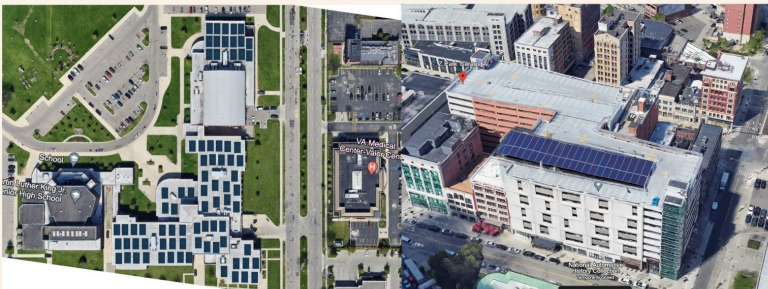
WHAT CHANGES DO WE RECOMMEND?

We advocate for the passing of legislation to allow for the development of community solar. This type of legislation would help low income communities gain access to renewable energy and would help lower costs for energy for subscribers of all income levels across Michigan.

COMMUNITY SOLAR IN DETROIT

Using generative AI, we have developed models of where solar panels could be built within the city of Detroit for the purpose of community solar. We made these designs with the purpose of adding solar panels to already existing open spaces in the city that would not require the acquisition of new land for solar panels.

These images are meant to help visualize what a solarized urban or suburban environment might look like. They can inspire us to look at other public spaces through the same lens. Below are images of, left, a school rooftop and, right, a parking garage with a solar canopy under which cars can still park.



Students for Democracy, Advocacy Branch





Sources

Stakeholders

Julie Roth: Manager of Energy Team in Office of Sustainability and Innovations Ann Arbor

Kendal Kuneman: Energy & Sustainability Consultant & Program Manager at Detroit 2030 District

Carlee Knott: Energy & Climate Policy Coordinator with the Michigan Environmental Council

Works Cited

Adams, B. (2019, May 29). In Detroit, a legacy of inequality creates obstacles to clean energy. Energy News Network.

Retrieved November 9, 2023, from

<https://energynews.us/2019/05/29/in-detroit-a-legacy-of-inequality-creates-obstacles-to-clean-energy/>

Davidson, K. (2023, June 18). Lawmakers revive bipartisan community solar efforts as Dems work toward clean energy goals * Michigan Advance. Michigan Advance. Retrieved November 9, 2023, from

<https://michiganadvance.com/2023/06/18/lawmakers-revive-bipartisan-community-solar-efforts-as-dems-work-toward-clean-energy-goals/>

Díaz, R. (2022, October 2). . . - YouTube. Retrieved November 9, 2023, from

<https://earth.google.com/web/@42.3346204,-83.04630557,214.8207007a,257.00650247d,35y,10.37496215h,53.96500566t,0r/data=OgMKATA>

MI Solar Communities - Renewable Energy. (n.d.). State of Michigan. Retrieved November 9, 2023, from

<https://www.michigan.gov/egle/about/organization/materials-management/energy/renewable-energy/mi-solar-communities>

Soft Costs Basics - Community Solar Basics. (n.d.). Department of Energy. Retrieved November 9, 2023, from

<https://www.energy.gov/eere/solar/community-solar-basics>

