



GLOBAL IMPACT SERIES

NET ZERO F.A.S.T.



Urban green roof (large). Photo courtesy of McPherson Architecture.
Detroit residential solar installation (inset). Photo by Nick Hagen, Model D Media

Glimmering electric vehicles, a sea of oscillating wind turbines, impossibly convincing burgers made entirely from plant proteins. For many, these are the futuristic symbols of the pathway to carbon neutrality.

But emission-reduction strategies like building retrofits and increased access to public infrastructure, though less alluring, are already available to roll out broadly, with no need to wait for new innovations or scalability challenges not yet solved. Inspired by the work of Project Drawdown, a 2020 Dow Fellows team partnered with Ecoworks Detroit to develop a suite of actionable policies and best practices tailored for organizations in southeast Michigan who wish to decrease their carbon footprints as much and as quickly as possible.

The team's recommendations will be a cornerstone of **Net Zero For All, Starting Now (Net Zero F.A.S.T.)**. This ambitious, regionally focused Ecoworks initiative emphasizes equity and environmental justice as it aims to eliminate climate pollution.

// The end goal of our project is to produce an action-oriented toolkit for municipalities who sign on to Net Zero F.A.S.T. that can facilitate their journey to net zero carbon emissions in the most efficient, streamlined, and equitable fashion possible."

— Dow Fellows Team

POWER IN POLICY

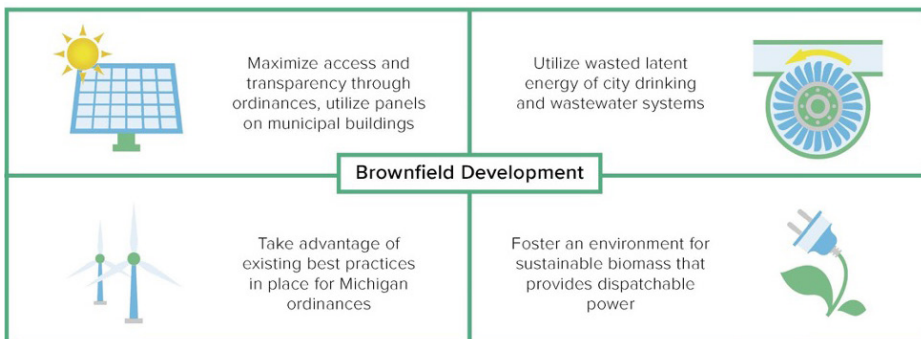
With equity at the forefront of their work, this Dow Fellows team was highly motivated to gather community input to inform their work. Given COVID-19 restrictions at the time of their project, they engaged in dialogue with the community via virtual interviews.

Based on their research, the team developed a comprehensive white paper focused on five policy areas: energy efficiency, building electrification, energy sources, energy siting, and public transit. The paper includes case studies, best practices, and an in-depth evaluation of environmental justice and equity considerations.

The results of their analysis provide a framework for Michigan municipalities to make substantial progress towards Michigan Governor Gretchen Whitmer’s statewide goal of carbon neutrality by 2050, while ensuring that vulnerable communities are protected and uplifted.

On a local scale, the team envisions their project recommendations as a way to support a variety of lasting benefits to communities, such as those listed here:

- More affordable residential energy bills through efficient building design and retrofits
- Mitigation of the urban heat island effect through cool and green roofs
- Increased green job opportunities supported by equitable training programs
- Expanded access to renewable energy technology, such as solar arrays, through financing and shared infrastructure



Brownfields, or sites previously developed for commercial or industrial purposes, were targeted for renewable energy siting by the Dow Fellows team as a viable strategy for achieving carbon neutrality in Michigan with the proper implementation. For example, closed landfills offer a unique opportunity to bring unoccupied, municipally owned land into production of renewable energy from sources such as solar panels and wind turbines. The proximity of many brownfields to marginalized communities also has the potential to bring dispatchable power close to home for residents in need of affordable energy. *Base energy siting graphics by macrovector | Freepik.*

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This project addresses the following United Nations Sustainable Development Goals.

SUSTAINABLE DEVELOPMENT GOALS

