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Solar panels at the DTE O'Shea Solar Park at work in Detroit in November 2022. [AP/ Paul Sancya](#)

Detroiters more likely to support local solar power development if they think it reduces energy prices for their community

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Michigan residents overwhelmingly want more solar power.

In the spring of 2023, nearly two-thirds of 1,000 state residents surveyed supported additional large-scale solar development.

In the Energy Values Lab at Michigan State University, we study how the public, and specifically community members living near large-scale wind and solar projects, perceive those projects and the processes by which they are approved.

According to a survey we conducted in the fall of 2023 that has not yet been peer reviewed, there may be less support in urban Michigan communities, particularly among those already living close to an existing solar project. Fewer than half of the 158 residents who took our survey supported their local project.

And around the 10-acre, DTE Energy-owned O'Shea Solar Park in Detroit, support was even lower, with only a third of respondents supporting that project.

What predicted residents' support of their local project? Mainly whether they saw the development process as just and benefiting local communities.

Those who believed the solar project lowered local community energy costs were most likely to support it. Yet rarely do we see evidence of these projects leading to lower electricity bills for immediate neighbors.

Our survey shows that residents living next to three solar projects across Michigan preferred housing over solar development by a 4-to-1 margin. This was even stronger in Detroit, where respondents living near the O'Shea Solar Park preferred housing over solar development by a margin of 18 to 1.

Even among those who supported the O'Shea project, more than half said they would have preferred housing instead of solar panels.

Local importance: Detroit

Detroit Mayor Mike Duggan's administration is moving forward with an urban solar initiative to place 33 megawatts of solar panel arrays on 250 acres of mostly, but not entirely, vacant urban residential land in the city. The city proposes six separate solar parks of around 40 acres each that would power 127 city buildings.

Duggan is pitching these solar developments as a way to fight climate change and reduce blight and illegal dumping by fencing off areas that will be maintained by third-party solar developers.

The plan proposes one-time benefits for affected residents, including \$10,000 to \$25,000 per household in "community benefits areas" surrounding each solar park for home energy improvements. For those who would be displaced within the projects' footprints, the city would offer 18 months of free rent to renters or double the fair market value with a minimum payment of \$90,000 for homeowners.



Proposed solar park areas outlined in blue and ‘community benefits areas’ in red. [City of Detroit](#)

City officials have said they are working to build consensus and document support for these projects within the affected neighborhoods.

These kinds of benefits led to the limited support solar projects got from neighbors in our survey.

Notably, there is no guarantee of ongoing direct economic benefits for local residents. In a statement to the media, the mayor suggested that the O’Shea project might “provide power to residents more cheaply,” but cheaper power was not provided to residents living near Detroit’s first urban solar project at O’Shea Park, and it is not currently offered to local residents with this new urban solar initiative.

Solar development leading to an ‘urban-urban divide’?

The Duggan administration’s push for urban solar development is situated in a larger narrative, one researchers often call the “rural-urban divide.”

Recent research shows that rural residents prefer solar to be developed on previously disturbed or developed land and often oppose solar projects because the electricity generated typically does not stay local but is instead used by cities and urban residents.

Our survey reveals similar sentiments among urban Michigan residents and suggests what may be a growing “urban-urban divide” in solar development between the mayor, city council and residents.

One O’Shea resident explains this trend, noting that residents who live near the solar array continue to pay high electricity bills while facing frequent power outages.

“We have constant blackouts from storms in this area. Our lights may be out up to a week,” the resident said. “There is no compensation for loss of food, heat or lights.”

Yet, while the [Detroit states it plans](#) to “leverage the insight and lessons learned from the O’Shea site in developing the current solar energy plan,” their current plan includes demolishing houses and not providing cheaper electricity to those neighborhoods.

Development concerns

Michigan has plenty of open land but severely lacks affordable housing. Demolishing over 100 homes and sending those occupants elsewhere is not likely to improve this situation.

The city of Detroit need not place these projects on city land in order to power city buildings or provide benefits to Detroit residents. They could place solar on land outside the city, as has been done in Chicago and Cincinnati.

In this scenario, residents keep their houses and get the benefits too, but only if the city passes on those savings.

That could, however, run back into the problem of solar's rural-urban divide, namely rural residents preferring not to send their locally generated electricity to cities.

Notably, a strong anti-solar movement among rural Michigan residents may make building solar in more rural areas a challenge. Rural residents have organized to overturn a new law that removes solar siting decisions from local control, placing it with state regulators. Currently, the residents of Detroit don't have any direct say over the mayor's plan.

So, what should be done?

Our research shows that both rural and urban residents want benefits from solar energy projects to stay local, not sent out of town – or even downtown.

Furthermore, our research suggests solar projects should be developed only in communities where those projects align with existing community values, objectives and land use plans.

Such alignment requires officials and developers to increase their engagement with community members, importantly doing so in person, according to our survey respondents. It also requires them to be transparent about their decisions and explicitly discuss both the positives and negatives of projects so residents can decide whether a project makes sense for them.

Finally, and perhaps most importantly, officials could push for more of the economic benefits from projects to stay local.

This could take the form of allowing neighbors of projects to subscribe to the power generated by the array and providing on-bill credits or by encouraging what have been called "good neighbor payments."

These small payments, paid out annually to a project's closest neighbors, could go a long way to increasing support for solar in the long run.