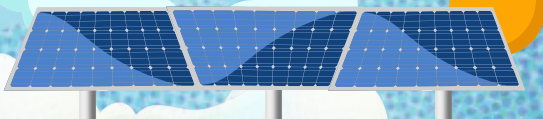


# SOLAR for COLDWATER



## Why Solar?



### Clean Energy

Produces renewable power that cuts carbon emissions and supports a sustainable future.

### Energy Resilience

Reduces reliance on the grid, keeping energy available during outages or price spikes.

### Reduced Electricity Bills

Offsets energy costs by generating your own power, saving money over time.

### Low Maintenance Cost

Solar panels require minimal upkeep, with no moving parts and durable design.

### Long Product Lifespan

Quality panels can produce clean energy for 25 years or more with proper care.



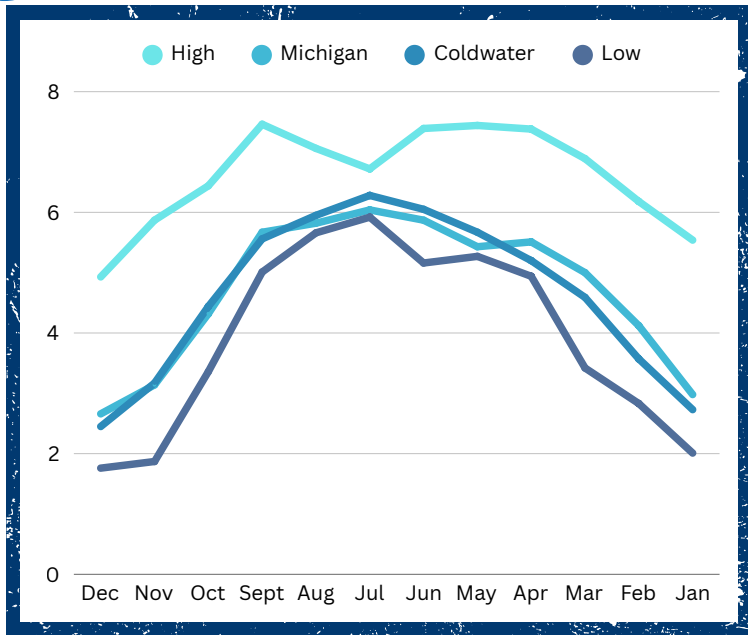
## MICHIGAN SOLAR RESOURCE



You can access State of Michigan's Department of Environment, Great Lakes, and Energy [Solar Resource](#) right here!



## SOLAR POTENTIAL



### Michigan Solar Potential

Michigan already performs well compared to many northern regions, offering reliable solar resources that make renewable energy projects viable. While it doesn't match the sunny Southwest, the state's steady solar availability supports year-round energy generation and long-term cost savings.

### Coldwater Solar Potential

Within Michigan, Coldwater stands out for its balanced solar profile, averaging 2.7 to 6.2 kWh/m<sup>2</sup>/day throughout the year. Summer peaks exceed 6 kWh/m<sup>2</sup>/day, while winter levels remain productive enough to contribute meaningfully, especially with tools like net metering or storage. This balance makes Coldwater a strong candidate for solar development.



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY



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# Coldwater Initiative

As part of its commitment to sustainability, Coldwater is exploring solar carports as a practical solution to generate clean energy while making use of existing public infrastructure.

# Why Solar Carport?

## Land Preservation

Utilize Existing Infrastructure for Maximum Impact, No disruption to green or agricultural spaces



## Solar Carports: Strategic Clean Energy Solution



Clean power, smarter infrastructure, and a commitment to a more resilient community.

## Weather Protection

Shelter for vehicles and pedestrians from rain, snow, and hail



## Power Generation

Generates clean, renewable electricity to offset local energy use, lowering utility costs and reducing carbon emissions

# Coldwater Solar Carport Project

Phase 01

Focuses on a pilot installation in the Henry L. Brown Municipal Building staff parking lot, where we'll evaluate technical performance, community engagement, and cost-effectiveness. This site allows for controlled testing in a familiar setting.

Phase 02

Involve scaling the solar carport model to different public plazas or high-traffic community spaces across Coldwater. These new sites will allow us to adapt the design for broader public use.

## Project Location



# SOLAR for COLDWATER



Samantha Buterbaugh

Samantha Buterbaugh, a longtime Branch County resident and recycling business owner, turned to solar power to gain energy independence and reliability. Living in a remote, wooded area prone to frequent and costly outages, she sought a long-term solution that would secure her power needs and lower utility costs.

Three years ago, Samantha and her family installed a 30 kW hybrid solar system, combining roof and ground-mounted bifacial panels with battery storage. Since switching to solar, the results have been transformative, their electric bills are roughly 80% lower, outages are no longer a concern, and they're now able to repurpose excess energy to charge a hybrid vehicle, leading to even more savings. Compared to projected utility costs of over \$100,000 across two decades, the investment has more than paid off—providing energy security, financial relief, and environmental benefits.



## Michigan State University (MSU)

MSU is a major public research institution serving over 50,000 students from across the U.S. and the world, and has long prioritized sustainability through its programs. In 2017, MSU installed what was then the largest solar carport system in the world, a 10,500 kW (10.5 MW) array generating approximately 15 million kWh annually, as part of its broader Energy Transition Plan. Motivated by environmental goals and long-term cost efficiency, the university partnered with Innovateus through a Power Purchase Agreement (PPA), which enabled construction without using university capital.

MSU's experience has inspired discussions, learning, and partnerships across the state and has had significant ripple effects, serving as a model for institutions and municipalities across Michigan. In fact, Coldwater's own solar carport initiative was directly inspired by MSU's leadership in clean energy infrastructure. The system not only contributes to MSU's sustainability goals but also provides predictable energy pricing, reduced utility costs, and enhanced resilience through integration with the campus microgrid.



# SOLAR for COLDWATER



## City of Ann Arbor



The City of Ann Arbor has been steadily expanding its local clean energy efforts as part of its broader strategy to reach carbon neutrality by 2030. A key part of this is the Ann Arbor Solarize program, which helps residents go solar through bulk-buy discounts, federal tax incentives (30%), and accessible financing. Since 2020, Solarize has supported over 5MW of new residential solar, resulting in more than \$2.3 million in homeowner savings.

To further support community resilience and clean energy, the City is also preparing to launch its own Sustainable Energy Utility (SEU), which could offer residents optional services like local solar, battery storage, energy efficiency upgrades, and networked geothermal systems. On the emergency preparedness side, Ann Arbor is rolling out a Sesame Solar Renewable Mobile Nanogrid, a portable, trailer-based system powered by solar, battery, and green hydrogen. It can be quickly deployed to community hubs or disaster response sites, offering reliable, off-grid clean energy when it's needed most.



## City of Detroit

Detroit's Solar Neighborhoods initiative shows how solar projects can support clean energy, community resilience, and local development. Spanning underserved neighborhoods, the project will generate up to 31 megawatts of energy and includes urban farming and pollinator-friendly landscapes under the panels. Crops like kale and lettuce are grown in pilot areas, while native wildflowers aid biodiversity and stormwater management. Shaped through community input, the project also offers benefits like home weatherization and relocation assistance. It serves as a model for how solar investments can drive both environmental and social progress.



## Scio Township



In 2022, Scio Township installed a ground-mounted solar field next to its Fire Station and Washtenaw County Sheriff Substation on Zeeb Road. Developed in partnership with Homeland Solar, the system supplies renewable energy directly to both facilities, which are essential services that operate 24 hours a day. The array offsets 43% of the combined buildings' electricity use, making it a significant contributor to operational savings. Beyond the electricity savings, the site enhances the local landscape through pollinator-friendly plantings like native wildflowers, supporting biodiversity and maximizing the land's ecological value. The system was also designed with future needs in mind, with infrastructure already sized to accommodate electric vehicle (EV) charging for public fleets. Residents and township officials can track the system's performance through publicly accessible SolarEdge dashboards, ensuring transparency while building community engagement around the township's clean energy progress.