



# Brownfield Developments

## Coldwater Solar Field Park

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The following case study is one of several produced recently by a *Dow Sustainability Fellows* project team. The team highlighted four brownfield sites in Michigan that have been developed or are being considered for solar projects. Each of these case studies examines the technical, economic, social, and other relevant characteristics of a specific project.

- Access the full report, *Accelerating Solar Development on Michigan Brownfields: Challenges and Pathways Forward*.

### Background

This project is a 1.3 MW installation located in Coldwater, Michigan, on the site of a demolished Marmon foundry. It is a 7-acre project that deploys nearly 5,000 solar panels to produce enough electricity to power roughly 150 homes. The project became operational in February 2018.

Coldwater Board of Utilities (CBPU), a municipality-owned and operated utility, spearheaded the project, with the community benefit of converting the brownfield into useful space. Florida-based NextEra Energy Resources LLC installed the farm under a contract with American Municipal Power (AMP), of which Coldwater is a member.

### Financing

NextEra built, owns, and operates the solar installation. AMP purchases all energy output and sells it to CBPU using a take-and-pay contract. AMP executed a solar power purchase agreement (PPA) with a subsidiary of NextEra.

CBPU was not aware of state or federal funding for brownfield redevelopment at the time. It self-financed the clean-up of the property through utility reserves. Because NextEra formed a for-profit subsidiary, the owners were able to take advantage of the federal investment tax credit, which brought the price of solar down considerably and made the PPA terms very favorable.

Although there are no direct carve-outs for residents, there is a significant benefit that stems from the clean-up of the former brownfield.

### Lessons and Takeaways

The utility chose this site, despite the availability of greenfield sites, because it was interested in remediating the brownfield. The project’s most difficult challenge was reaching an agreement with Marmon, the property owner, over the site’s use. Marmon was very reluctant to lease or sell the property because heavy contamination from the

Image credit: City of Colwater, MI.



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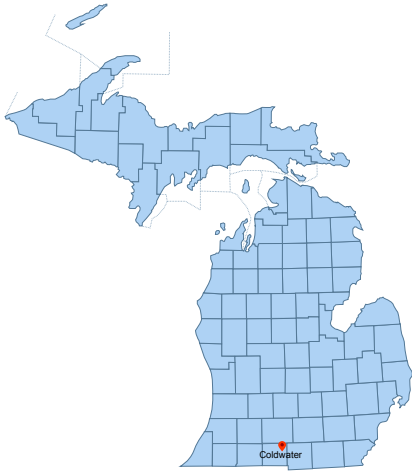
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The *Clean Energy in Michigan* series provides case studies and fact sheets answering common questions about clean energy projects in Michigan.

Find this document and more about the project online at [graham.umich.edu/climate-energy/energy-futures](http://graham.umich.edu/climate-energy/energy-futures).



foundry operation and a diesel oil leak from adjacent CBPU tanks raised concerns over potential future liability.

After six years of negotiations and contract revisions, the City of Coldwater and the Marmon Group entered into an agreement in July 2015 to lease the land for one dollar. In light of Marmon's liability concerns, the installation was designed to minimize penetration into the ground. Large concrete ballasts were installed and solar arrays were attached directly to them. In addition, NextEra continues to monitor the underground pollution.

The success of this project is largely due to a steadfast effort on the part of the utility. CBPU wanted to use the brownfield adjacent to its old substation for power generation, and was eager to expand its solar portfolio to meet Michigan's Renewable Portfolio Standard. Moreover, the brownfield had been an eyesore for a number of years and was in need of repair (specifically, new fencing).

CBPU first reached out to city officials to discuss the site's potential rehabilitation, then raised the idea of solar. Once consensus was reached with the city, CBPU began negotiating with the property owner. In the end, CBPU was able to get a contract with Marmon by offering to go above and beyond standard remediation processes and take special precautions during the solar installation.



*Image credit: City of Colwater, MI.*