



## Wheeler Center Solar Park

# FREQUENTLY ASKED QUESTIONS

### What is this project?

This project, known as the Wheeler Center Solar Park, is a community solar installation designed near and on the capped landfill on City-owned land located in Pittsfield Township and the City of Ann Arbor (collectively known as the landfill). The project will produce up to 20MW of renewable energy, which is roughly the equivalent annual energy usage of 4,000 homes.

### Why was the landfill selected for the solar installation?

This landfill site was chosen as it has high solar potential, is directly abutting a 40kV DTE-owned power line as well as a 120 kV Midcontinent Independent System Operator-owned power line, is surrounded by few neighbors and can significantly help the City of Ann Arbor and Pittsfield Township achieve their clean energy goals with local renewables while providing re-use of the landfill site.

### What is the value proposition of the project?

This project will bring a large-scale renewable energy installation to the area and give any customer of DTE a chance to participate in a local solar project. It will add renewable energy to our local grid, which, based on 2020 generation, is currently only at 11%. The project also supports the City of Ann Arbor and Pittsfield Township's goals of powering the local grid with 100% clean and renewable energy while simultaneously reducing greenhouse gas emissions associated with fossil fuel energy use. The solar project will have low maintenance costs, support energy independence, and help provide electricity during peak hours of demand, thus reducing the use of fossil fuels and associated air and water pollution.

### Can individuals choose to support the project on their energy bill?

Yes! All DTE electric customers can subscribe to this project through the MIGreenPower program. Subscribers will pay their share of the costs of the project based on how much energy they want but will also get a credit back on their utility bill based on the value solar sells for in the market (which will vary from month to month). It is expected the energy would be at a premium compared to other projects.

### Are solar panels a viable option in Michigan?

Yes! While Ann Arbor's solar potential is not at the same as the southwest United States, it is only marginally less than some cities in Texas and Florida, and higher than cities in the Northeast and Northwest. Ann Arbor's solar potential is also significantly better than Germany's, where there is more installed solar per capita than anywhere in the world.



### Do the panels produce energy in winter?

Yes! Solar panels operate more efficiently in colder weather meaning that, even though there may be less hours of the day with direct sunlight, the panels are able to more efficiently turn that sunlight into direct energy. In general, winter production is a little less than half of that in the summer.

### Why is wind energy not being installed at this site?

A commercially viable wind project requires an average annual wind speed of 14.3 miles per hour at 50 meters, also known as Class 3 wind.<sup>[2]</sup> NREL has rated the Ann Arbor region as having slower, Class 1 or 2 wind. The landfill site is also a nesting area for birds, which wind turbines may disrupt. In contrast, solar panels have no moving parts and space underneath the panels that is often used as nesting bird and pollinator habitat.

<sup>[2]</sup> U.S. DOE, NREL (2019) "Wind Data Details."

### Can my company subscribe?

Yes! Anyone in DTE's service territory, individual or company, is eligible to subscribe to this project.



## How much of the City and Township's electrical use would this offset?

This installation was originally sized to help Ann Arbor and Pittsfield Township reach their goals of powering municipal operations with 100% renewable energy. However, after an exciting development, this project will now be listed as a special offering through the MIGreenPower program, meaning any resident or business can subscribe and offset their energy use with local, renewable energy. Pittsfield Township will still be subscribing to offset all their electricity usage with renewable energy, but the City of Ann Arbor will be the subscriber of last resort, meaning the City will purchase any power not subscribed to by residents or businesses.

## How does this project align with the City of Ann Arbor and Pittsfield Township's clean energy goals?

Ann Arbor has a goal of powering our electrical needs with 100% clean and renewable energy by 2030. To achieve this for municipal operations, the city is looking to convert all viable municipally owned natural gas-powered infrastructure to electric, implementing energy efficiency improvements at City facilities, installing rooftop solar systems, and advancing the 20 MW solar facility on the landfill. To achieve this community-wide, the city is pursuing other ideas, including our [Solarize](#) program and other initiatives within our [A<sup>2</sup>ZERO Carbon Neutrality Plan](#). Pittsfield Township passed a Township Preservation Plan, which is an addendum to the Townships 2020 Sustainable Vision Master Plan. The Preservation Plan advances the Township's role in supporting and providing renewable energy options. Powering Township operations with clean and renewable energy is an essential step in reducing dependence on non-renewable energy sources.

## What will this project cost?

Final subscription prices are being determined and more specific details will be available shortly.

## Will the electricity generated be directly used by City sites?

The electricity produced at the landfill solar site will be fed into the energy grid and distributed throughout the DTE electrical system. Subscribers will continue to receive electricity from the grid at their home/business. Given this, there is no guarantee that subscribers will receive the physical electrons that are being generated by the solar energy facility. However, subscribers will get credit for the renewable energy being generated commensurate with their subscription, and the associated renewable energy credits will be retired on their behalf.

## How long is the solar project expected to be in operation and what happens after?

The project will be engineered and financed for a 35-year period. After this time, the installation will be assessed. If the installation continues to be economical, we will continue to perform upgrades and keep the site in production. If the site proves uneconomical, it will be decommissioned.

## What is community solar?

Community solar is any solar project or purchasing program, within a defined area, in which the benefits of a solar project flow to multiple customers. Customers are benefitting from energy generated by solar panels at an off-site array. In the case of the landfill solar project, customers subscribe to DTE's MIGreenPower program and receive credit on their electric bill for electricity generated from their share of the community solar system at the landfill.

## Who gets the Renewable Energy Credits from the site?

Subscribers are credited with the equivalent renewable energy credits from their share of the community solar system; the credits will be retired so they can't be used for compliance or to offset any other use.

## Why should I subscribe?

Community solar allows everyone to benefit from solar energy, even if you can't install solar on your roof. This is an especially viable pathway for renters, those with limited solar potential at their home or business, or those looking to advance their personal or corporate social responsibility goals. By subscribing to community solar you are doing your part to get more renewable energy on our local grid.

## Will the solar project impact water quality?

Not as designed. Under the Construction Stormwater Control measure, the City of Ann Arbor has a regulatory program to control stormwater run-off from construction sites requiring a Soil Erosion and Sedimentation Control Permit. Under the Post Construction Stormwater Management Control Measure, the City of Ann Arbor has a program requiring new and redevelopment projects to implement on-site controls that will reduce pollutant loads in stormwater run-off. The City of Ann Arbor follows the rules of the Washtenaw County Water Resource Commissioner for post construction controls. City staff review site plans for compliance with regulations governing stormwater management. The project will be designed to have a high level of permeability with extremely limited imperviousness.

## Who will pay for the installation?

Project construction and decommissioning costs are included in the costs for the project, which are spread over the project's life. That means everyone who subscribes to this project as part of DTE's MIGreenPower program will be paying for their part of the project. Upfront costs will be paid for by DTE.

## How will the City meet its climate goals if the public can buy into the project?

The City is pursuing multiple actions to meet its goals, including onsite solar installations, power purchase agreements, and energy efficiency, among others. Moreover, if the public fully subscribes to this project, the City will look to serve as an anchor tenant for another solar farm!

## What federal tax incentives are applicable to the project?

This project will be eligible for the federal Business Energy Investment Tax Credit (ITC), which is currently 26% for systems commencing construction in 2022. The City and DTE are working to maximize the financial benefit from this tax credit as well as any other opportunities; benefits that will be reflected in final costs.

## Could this project be a part of a City utility?

The project will be owned by DTE. If the City wanted to take ownership, it would have to go through the process that involves the taking of the property. The goal of the landfill solar project is to get renewable energy onto the grid fast and allow any customer of DTE to participate. The way the project was set up gives us flexibility moving forward while allowing us to reduce emissions rapidly.

## Can the land be used for agriculture after the lifetime of the solar panels?

Yes. The construction of a solar project is very low-impact. Over 99% of the land will remain permeable to water flow, and the addition of local pollinator species and lack of intensive agricultural activity will improve soil health meaning that the parts of the site used for agricultural production today could do so again once the site is decommissioned.

## Will the project have a fence or buffer to minimize visual impact?

There are three different visual buffers that have been implemented in the design of the site. The first is a pre-existing berm which blocks a large portion of the site from Stone School Road. Additionally, landscaping buffers will be planted to reduce visual disruption and improve the site aesthetics. Finally, a fence will be installed around the transformer and the arrays.

## Will wildlife be able to co-exist with the solar panels?

Solar panels have no moving parts, and this design would not get as hot as solar concentrating projects. An area used for nesting birds will be maintained, and pollinator habitat species will be introduced, providing more habitat for wildlife. In addition, rows will remain open that can be used by species traversing the landscape. The construction of a solar project is very low-impact. The holistic design and management of the project provides an opportunity to increase the diversity and abundance of native species of birds, bees, butterflies, and vegetation. In addition, the installation of the project will be timed to minimize impacts to wildlife, especially ground nesting birds.