

Contributed by: RACER Trust

## Case Study: Brownfield to Brightfield, Giving New Life to a Closed Landfill, Danville, IL



**Array of the solar deployment project in Danville, Illinois.**

### Purpose

To convert a closed industrial landfill — a property with limited redevelopment potential due to construction and use restrictions — to a productive, revenue-generating use in furtherance of the broader public policy aims of the deployment of renewable energy resources.

### Project Overview

Ameresco, Inc., a leading cleantech integrator specializing in energy efficiency and renewable energy, and Inovateus Solar, a top U.S. solar engineering, procurement, and construction (EPC) company, built the “brightfield” solar project on a closed captive landfill that previously took waste

from a former General Motors foundry. Greenbacker Renewable Energy Company, an independent power producer and green energy investment company, is the owner of the installation. Greenbacker both acquires and manages income-producing renewable energy and other energy-related businesses, including solar and wind farms, and provides asset management services to other renewable energy investment vehicles.

The 80.4-acre property was purchased from RACER Trust, which had assumed it, along with dozens of other former GM properties in 2011, pursuant to a settlement in the 2009 General Motors Corp. bankruptcy. Ameresco, which is based in Framingham, MA, completed its purchase in November 2020 and started construction soon after.

The 2.62-megawatt (MW) Danville solar system consists of more than 6,600 solar modules and is connected to the Ameren Illinois utility grid. The completed project is generating 3,600,000 kWh of electricity — enough to power roughly 2,000 homes for a year — and offsets more than 1,500 metric tons of carbon dioxide annually. The project reached completion in May of 2022 with a total investment of \$3.5 million.

## Sale and Development Approach

RACER Trust was established in March 2011 to take ownership of properties abandoned by the former General Motors Corp. after the automaker filed for bankruptcy in 2009. RACER, which stands for Revitalizing Auto Communities Environmental Response, was structured and funded with a dual mandate — to remediate environmental impacts, where necessary, and to sell properties for the highest and best redevelopment and reuse. RACER is not set up to own property in perpetuity or function as a landlord. In the case of a property such as the Danville landfill, reuse options were narrowly limited.

Utility-scale solar developments on brownfields typically are constructed under long-term ground leases for liability, financing, and tax purposes and to minimize the developer's costs and risk. While RACER from time to time leases and licenses its properties on a short-term basis, and will consider long-term ground leases for solar, the uses RACER permits typically are short-term in nature, such as outdoor vehicle parking. The challenge for RACER was to identify a solar developer who would be willing to assume the additional risk of real property ownership in a competitive environment in which the demands of real property ownership are seldom required.

"We can turn a serious problem into a tremendous opportunity by siting solar on closed landfills," Tyler Kanczuzewski, Inovateus Vice President of Sustainability, said in announcing completion of the project. "The Danville Solar project is making productive use of land that might otherwise lie dormant, while avoiding construction in more pristine areas."

## Project Challenges

Any renewable energy project faces hurdles: foremost of them are the need to secure a third-party off-taker for the energy and renewable energy credits produced, interconnection and financing. With respect to interconnection, independent system operators face the multi-faceted challenge of integrating new, distributed renewable energy generation resources in an environment of transmission constraints and the rapid retirement of fossil-fuel and nuclear baseload generation. This results in something of a chicken-and-egg aspect to developing renewable energy projects. Once the ownership structure and deal partners were in place and contracts signed to connect the new project to the local electric transmission grid, the next biggest obstacle was supply-chain-related delays that were characteristic of the broader economic disruptions caused by the covid-19 pandemic. This is not to minimize the hurdles that are common to renewable energy projects; the process of securing an off-taker and interconnection requires commitment and capital.

Specific to this property, an access agreement conveyed to RACER Trust as part of the bankruptcy settlement was not sufficient from the buyer's perspective. RACER negotiated with the property owner who granted the initial access agreement and easement to restructure the agreement to meet the buyer's needs.

RACER also recorded restrictive covenants requiring protection of the landfill cap and worked with the Illinois Environmental Protection Agency to achieve a "Certified Closed" status for the landfill, which eliminated future operation, maintenance, and monitoring (OM&M) for RACER and the buyer.

## Discussion

*Is there anything you wished you knew at the beginning of the project or that you would do differently based on your experience with the project?*

No. Both the buyer and seller have expertise with respect to energy markets, financing, available

incentives, public policy aims, engaging with regulators, and the peculiarities and restrictions of brownfield redevelopment. This project was an unqualified success.

### *What advice would you give to others as they pursue climate action projects?*

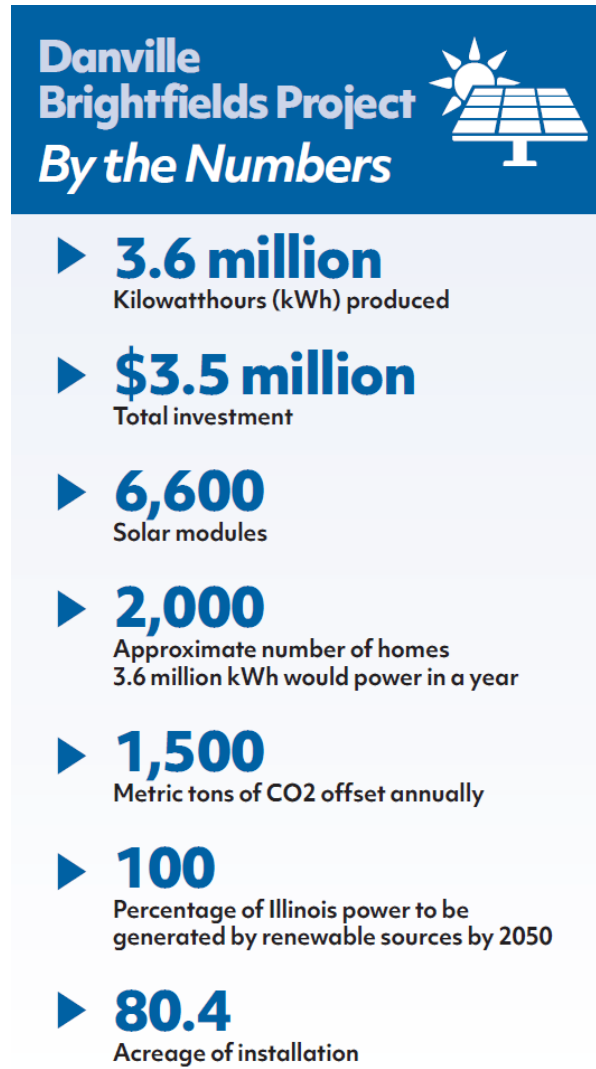
The U.S. and several state governments have established ambitious renewable energy generation goals, including fixed targets and tax credits for renewable energy generation and use, the phasing out of power-generating plants that use fossil fuels, and the adoption of state laws to override local objections to the siting of utility-scale renewable energy projects. Public and private sector funding and incentives for renewable energy have rapidly expanded in recent years, a trend that is unlikely to recede in the foreseeable future.

### *How does this project fit into the state of Illinois' broader climate and community goals?*

This project contributes to the successful implementation of Illinois' Future Energy Jobs Act, which requires that 2,700 MW of solar be installed in Illinois by 2030 and that 2% of those projects come from brownfield sites, such as closed landfills. The state's goal is to obtain all its energy through renewable sources by 2050, with interim goals of 40% renewable energy by 2030 and 50% by 2040. The state also created an Energy Transition Assistance Fund to allocate funding from ratepayers to support \$180 million in state clean energy programs.

Illinois' Renewable Portfolio Standard requires specified electric utilities and suppliers to get a

certain percentage of electricity from renewable sources. According to this law, renewable sources must make up 25% of overall electric sales by 2025, with wind energy accounting for 75% and solar accounting for 6%.



## **Additional Information and Resources**

[Ameresco, Inc., website](#)

RACER Trust [solar resources web page](#)

Illinois [Climate and Equitable Jobs Act](#)

Ameresco [news release](#)

RACER's Edge Award [news release](#)

## About Solar@Scale



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