Sylvan Solar

Project Overview

→ **Power Production**

Sylvan solar is designed to produce 220 MW, equivalent to providing renewable energy to approximately 55,000 homes each year.

→ **Project Footprint**

The project is being designed to minimize impact and maximize efficiency of the energy production. Sylvan Solar will be approximately 1,500 fenced in acres. For scale this is 1.3% of farmland in Newaygo County.

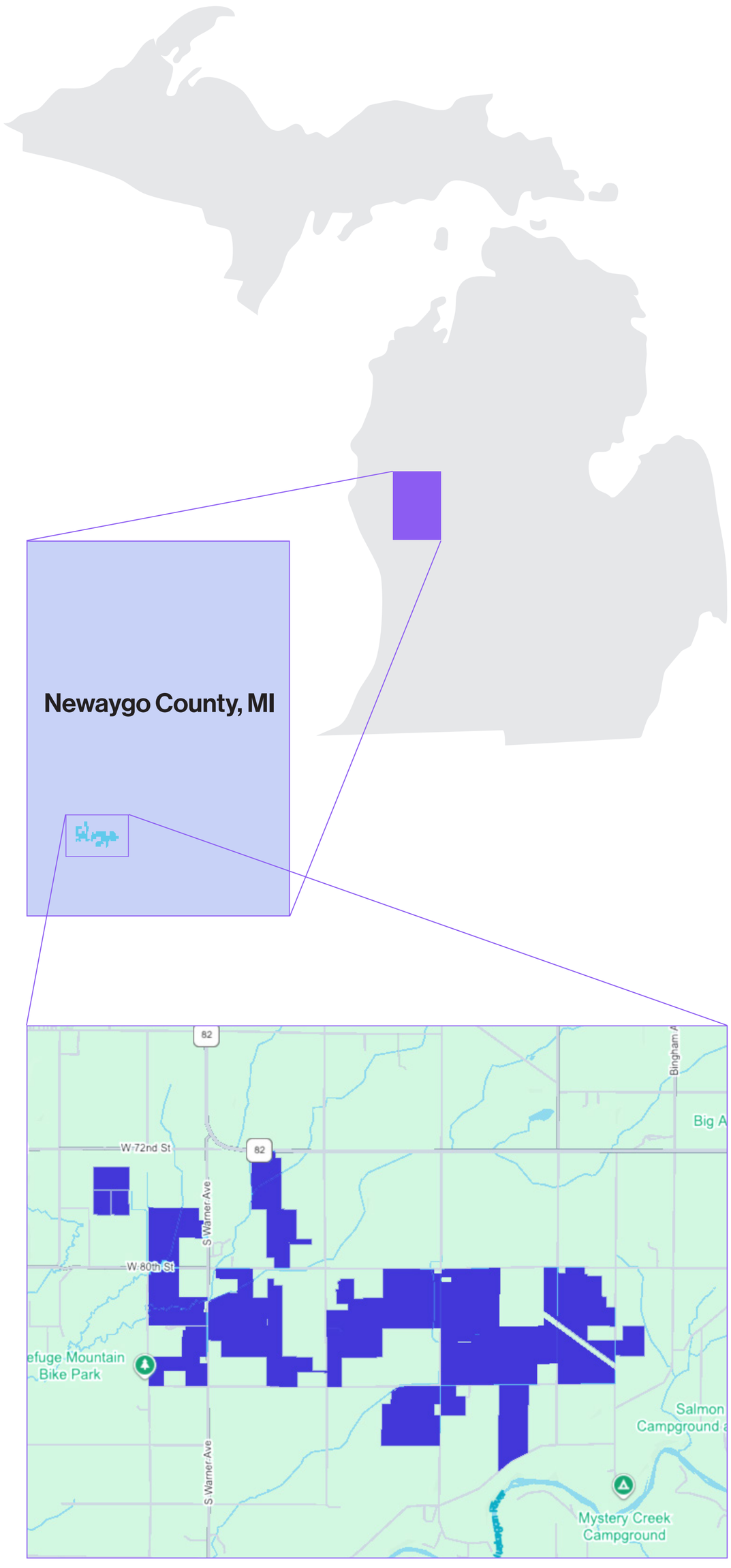
→ **Project Lifespan**

Once completed, Sylvan Solar is expected to operate for 35 years, with ongoing maintenance ensuring sustainable and reliable power generation.

Project Location*

Newaygo County, Mi

500 acres in Sheridan Charter Township, 1,000 acres in Garfield Township



*Visual reference, please see the Project Map Board for a detailed view.

Community Investment

Sylvan Solar represents a significant investment in Newaygo County, estimated at $277 million, contributing to local employment and long-term economic benefits over the life of the project.

Sylvan Solar

Project Timeline*

2021 - 2024

- **Electric Grid Modeling**
  Midcontinent Independent System Operator (MISO), who manages the flow of electricity across multiple states including Michigan, conducts studies to assess the impact of new electric generators on the grid to ensure system stability and efficiency.
- **Land Agreements**
  Establish land leases and finalize agreements with landowners.
- **Environmental Studies**
  Comprehensive studies on wetlands, species habitat, and cultural resources.

2025

- **Project Design & Engineering**
  Initial project design and engineering assessments are conducted to establish layout and specifications.
- **Community Engagement**
  Public meetings and outreach to inform and gather input from the community in the project's development.
- **Local Permitting & Approvals**
  Prepare the Land Use Permit applications and studies (e.g., sound, visual analysis) for submittal to local officials to initiate the local permitting process, which involves application reviews and public hearings.
- **Electric Grid Modeling Process Completed**
  Studies and modeling from MISO are complete, resulting in an agreement that allows the electric generator to connect to the electric grid.

2026

- **Select Engineering, Procurement, and Construction (EPC) Contractor****
- **Construction & Environmental Permitting**
  Coordinate with local, state, and federal agencies to obtain other required permits, as applicable.

2027 - 2028

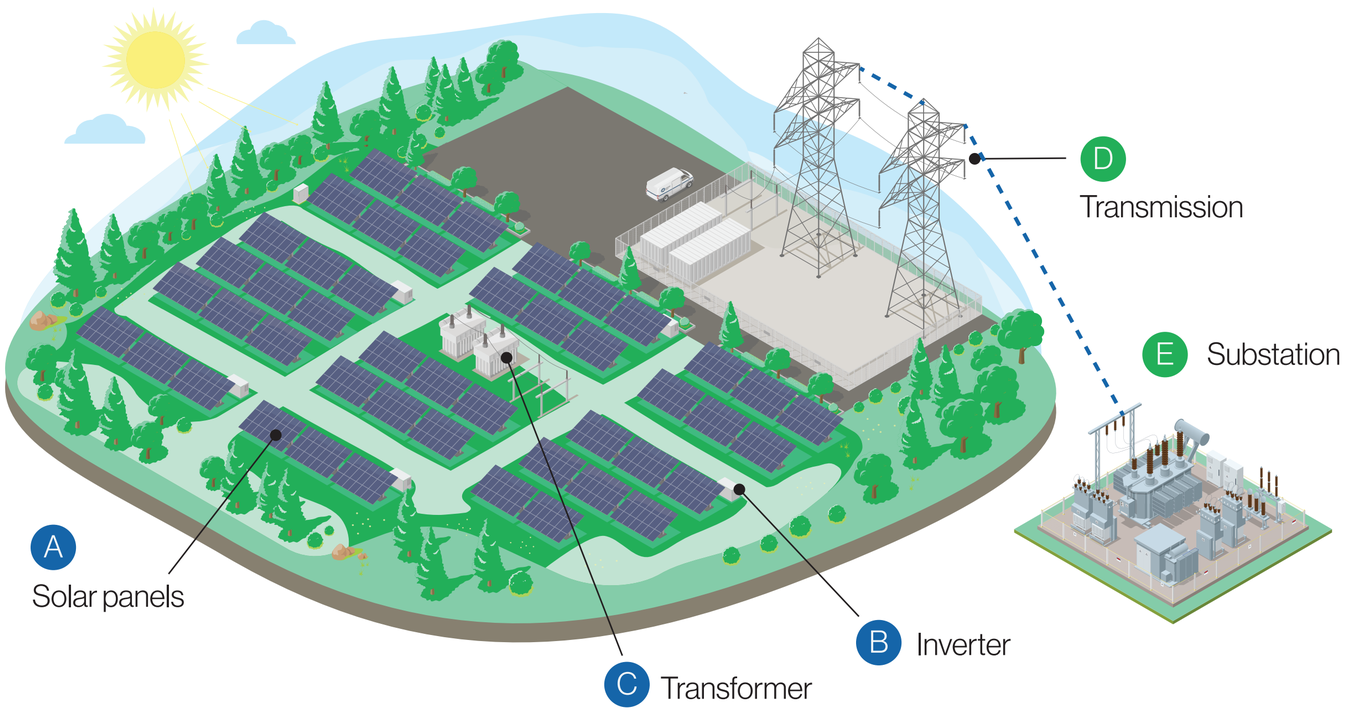
- **Site Preparation**
  The site will be carefully prepped through clearing only necessary vegetation and leveling areas for solar array installation. Soil will be replanted with a regionally appropriate, pollinator-friendly seed mix designed to improve long-term soil health.
- **Access Road Construction and Fencing Installation**
  Build access roads to facilitate transport of equipment and materials to the site. Install fencing around the project perimeter to ensure site security and safety. Fencing will be designed to allow safe movement for smaller, non-intrusive wildlife while deterring entry by larger wildlife that could harm infrastructure.
- **Delivery of Materials**
  Delivery will be coordinated to minimize impacts to the public use of roads.
- **Installation of Racking System, Solar Panels, Inverters, and Substation Grid Connection**
  Assemble and install racking systems that support solar panels across the project area. Mount and secure solar panels on the racking systems, forming rows across the site. Set up inverters and transformers to convert DC electricity from panels into AC for grid use. Connect panels, inverters, and other equipment, establishing the electrical network for power transmission.
- **Final Inspections**
  Finalize connection to the power grid, integrating the solar farm's output with the utility network.
- **Start of Operations**
  Begin commercial operations, delivering clean energy to the grid.

**Subject to change.*

***AES prioritizes local hiring when available and applicable.*

Sylvan Solar

How does solar power work?



A The sun shines on the solar modules, which are made up of photovoltaic cells. These cells harness the sunlight and turn it into direct current (DC) electricity.

This project's solar panels have a tracking system and follow the path of the sun to maximize solar energy production.

B An inverter converts DC electricity into alternating current (AC) electricity.

AC electricity is what standard household appliances use.

C The AC electricity is gathered in a large switchgear called a transformer. It "steps up" the power to match the high voltage of the utility grid.

D The AC electricity travels through the utility transmission lines to the regional power grid.

E The AC electricity reaches the nearby substation where it is converted to a lower voltage. This "step down" is required to adjust the voltage to appropriate levels to power neighborhoods and businesses.

Blue = Project equipment
Green = Existing infrastructure

What's in a solar panel?

More than 95% of the materials used in solar panels are commonly recyclable materials. This recyclable percentage is significantly higher than other electronic waste from consumer products like cell phones, television screens and computers.

Recyclable materials in a solar panel (panel percentage range):

76-97%
Glass

7-10%
Aluminum

5-7%
Silicon

2-10%
Polymer (coatings)