



Three Lakes Solar Energy

St. Joseph and Cass Counties, Michigan

 Installed capacity: **178 MW + 122 MW Storage**

 Estimated commercial operation: **2028**

 Installed capacity will be equivalent to the average consumption of more than **72,600 Michigan homes**.¹

Three Lakes Solar Energy will be located in St. Joseph and Cass Counties, west of the City of Three Rivers. The solar energy project will complement the area's agricultural resources, providing farmers with a stable, weather-resistant cash crop in the form of landowner lease payments. Three Lakes Solar Energy will also generate millions of dollars in payments to local governments through the life of the project.



Economic benefits



\$600 million
CAPITAL INVESTMENT²



\$77 million
WILL BE PAID TO LOCAL
GOVERNMENTS



Millions of dollars
WILL BE PAID TO LANDOWNERS



Millions of dollars
WILL BE SPENT LOCALLY



PERMANENT JOBS³
Multiple jobs will be created



CONSTRUCTION JOBS³
Hundreds of jobs will be created

Energy security

Power generated at Three Lakes will support the state of Michigan's electric grid. The energy storage project will also contribute to the **national energy security for the United States**, helping add on-demand power.

Environment and solar energy storage projects

Energy storage facilities are designed to not release pollutants into the air, soil, or waterways. Additionally, **solar panels contain no liquids or materials that pose a risk to the environment or human health.**

Energy storage safety

Between cell phones, laptops, and power tools, many people have a lithium-ion battery in their pockets or hands at all times. Additionally, energy storage fires are very rare and their rate of frequency is decreasing. Energy storage sites are also highly regulated to ensure safety for neighbors, communities, and technicians.

Three Lakes' environmental impact

The solar energy project will save more than **254 million gallons** of water each year and will prevent the air pollution that causes smog and acid rain.⁴

EDPR NA's impact in North America from solar energy⁵



\$41.8 million

PAID TO LANDOWNERS



\$16 million

PAID TO LOCAL GOVERNMENTS



4,400

CONSTRUCTION JOBS CREATED



100

PERMANENT JOBS CREATED

How is energy storage useful?



Reduces outages & enhances resilience



Reduces costs and saves money



Builds a stronger, more efficient grid



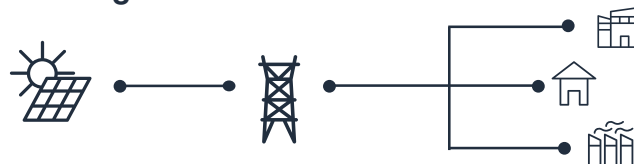
Supports local economies



How solar energy works

EDPR NA uses photovoltaic (PV) solar cells. Photovoltaic solar cells have no moving parts and convert sunlight directly into electricity via the photoelectric effect. This direct-current electricity is then collected, transformed into alternating current, and finally put on the electrical grid through a substation after being converted to the proper voltage.

Power grid

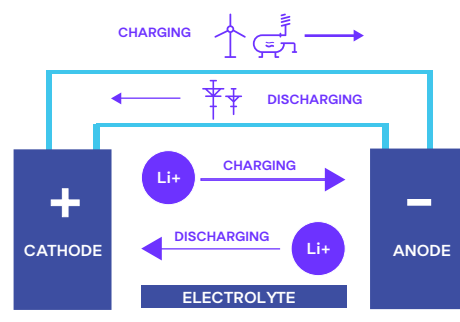


Solar is one of the cheapest forms of energy.⁶

The cost of solar has fallen 71% in 10 years.⁷

How energy storage works

The most common electrochemical storage method is the lithium-ion battery. These are similar to the batteries that power your cell phones, or laptops. Energy storage systems are fuel-neutral. This means that they can capture and dispense electricity from oil, gas, coal, nuclear, geothermal, and EDP Renewables North America's wind and solar energy projects.



Scan the QR Code to explore educational resources on renewables and how we are empowering local economies, as well as meeting the energy demand of today.

▶ *Scan the QR Code using the camera on your mobile device.*



¹The cost and performance of the battery systems are based on an assumption of approximately one cycle per day. Therefore, a 4-hour device has an expected capacity factor of 16.7% (4/24 = 0.167). The cost of solar power generation calculated using 25% capacity factor. Household consumption based on 2023 EIA Household Data monthly average consumption by state. This assumes that all energy is stored from a renewable source and discharged at the grid average.

² Assumes utility fixed-tilt projects are \$1.02/Wdc, and single-axis tracking projects are \$1.11/Wdc. Based on Q3 2023 SEIA U.S. Solar Market Insight. National Renewable Energy Laboratory found a 4-hour device in 2020 was \$345/kWh.

³ Full-time equivalent jobs calculated by dividing number of contractor hours worked during construction by 2080.

⁴ Assumes 0.58 gallons of water consumed per kWh of conventional electricity from Lee, Han, & Elgowainy, 2016. This assumes that all energy is stored from a renewable source and discharged at the grid average.

⁵ Based on EDP Renewables North America's Operational Solar Parks through 2024.

⁶ Lazard's Levelized Cost of Energy 2024 (version 17.0)

⁷ Based on American Clean Power Associations Annual Market Report, 2023.

About us

EDP Renewables North America LLC (EDPR NA), its affiliates, and its subsidiaries develop, construct, own, and operate wind farms and solar parks throughout North America. Headquartered in Houston, Texas, with 60 wind farms, 27 solar parks, and eight regional offices across North America, EDPR NA has developed more than 12,000 megawatts (MW) and operates more than 11,600 MW of onshore utility-scale renewable energy projects. With more than 1,000 employees, EDPR NA's highly qualified team has a proven capacity to execute projects across the continent.

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