

About solar

U.S. Solar Energy Facts*

Utility-scale solar is the **3rd-largest source of renewable energy**.



Utility-scale solar parks have a total capacity of **100 gigawatts nationwide**.



Powering more than **22 million** American homes across the U.S.



Employing more than **261,000** Americans across all 50 states.



125 million CO₂ emissions avoided
Equivalent to taking 28 million cars off the road.



\$195 billion in economic contributions
Utility-scale solar is a major contributor to the U.S. economy.

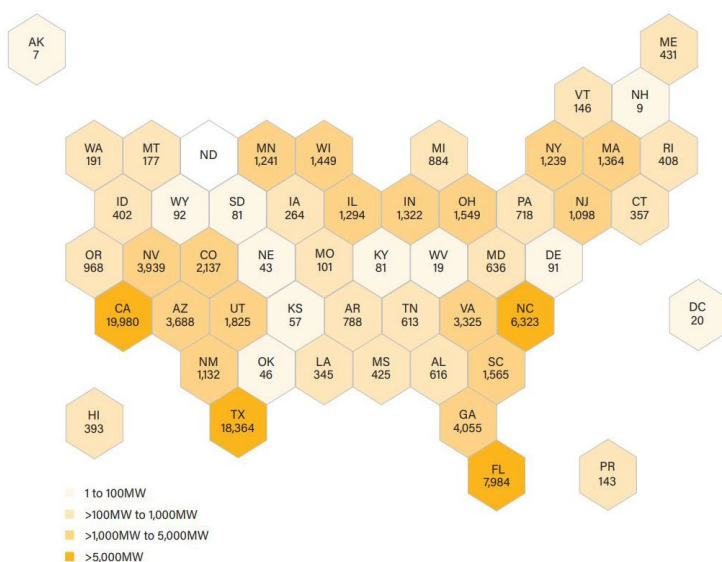


\$739 million in state and local taxes and land-lease payments annually.



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

Operating Utility-Scale Solar by State



Solar comprises a large portion of the total energy generation mix in many states including:



California	28.8%
Massachusetts	23.75%
Nevada	26.17%
Hawaii	19.47%
Vermont	19.12%

At the end of 2023, the cumulative operating capacity for utility-scale solar had grown to **94,425 megawatts, which is enough to power 16.3+ million homes.¹**

> 112GW

of new utility-scale PV solar will be added from 2022 to 2027, nearly doubling the amount installed in the last decade.

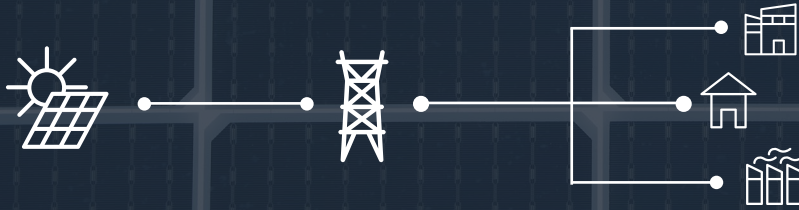
*Solar energy facts as of April 2024 from the American Clean Energy Association's U.S. Clean Energy Annual Market Report
¹ Solar Energy Industries Association, "What's in a megawatt?", 2023.

Solar project overview

EDPR 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 enters the electrical grid through a substation after being converted to the proper voltage.



Grid



1 MW Solar = about 6 football fields or 8–10 acres.

1 megawatt of solar energy powers more than 240 average homes.

Where does the energy go?

The grid isn't like a pipeline that takes power from point A to point B. It's more like a grain elevator, where the electrons generated by the solar panels are collected and then put onto the grid with the electrons generated by the power plants.

Solar projects add energy to the grid, and those electrons strengthen and diversify the local grid. Energy on the grid flows through the path of least resistance to where the power is needed, adding capacity to power the homes and businesses where energy is in demand.

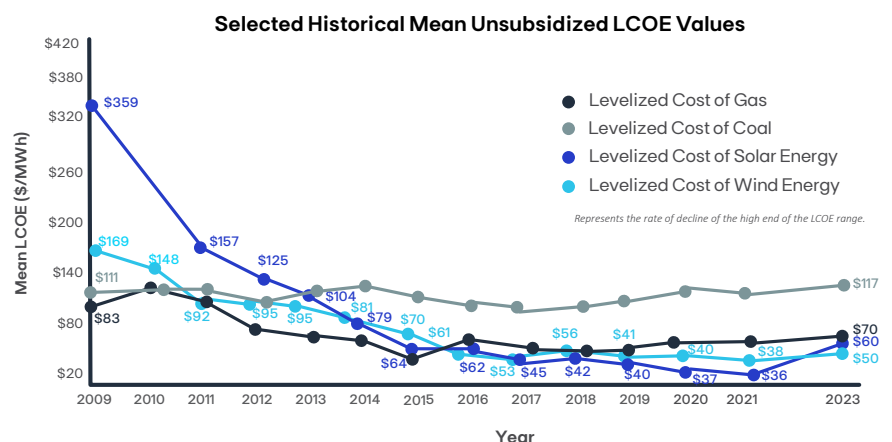


Timber Road Solar Park | Paulding County, Ohio

How do we sell energy?

Solar park owner-operators, like EDPR, make money by selling energy through power purchase agreements (PPAs). Through PPAs, customers – such as utilities, electric cooperatives, and commercial or industrial companies – purchase a set percentage of the energy generated by the solar park at a fixed price for a number of years.

Owner-operators use the long-term commitments from buyers to secure the capital needed to build the projects, while buyers use the agreements to help build a diverse portfolio of reliable, predictable electricity supply, as well as to firm their electricity input costs for the long term. In addition to having locked-in energy prices for their operations, by purchasing from the solar park, customers are able to demonstrate to stakeholders and regulators that they are powered by renewable energy specifically, which is an increasingly common goal for many corporations and utilities.



Solar energy is among the most affordable energy options in America. Power purchase agreement prices have fallen dramatically in all regions of the United States, giving utilities and corporate off-takers access to reliable, cheap energy at a fixed price. **These guaranteed rates help keep consumer costs low and stable while also supporting American energy independence.**