

MYTHS AND FACTS ABOUT SOLAR ENERGY

You have probably seen these large, utility-scale ground-mounted photovoltaic (PV) systems, commonly referred to as solar farms. Despite the many economic and environmental benefits of solar energy, there are still some myths and misconceptions circulating around.

FAQS

A typical land lease for a solar farm is 20 to 25 years, and because the panels are not attached to any water system or other equipment, at the end of the lease, the land can be restored to its original purpose. Below are some other commonly asked questions and responses that explain why solar energy is a great opportunity.

Clean energy jobs, like in solar, are just temporary.

Clean energy provides jobs for more than 415,000 Americans. Clean energy is set to become America's dominant power source. Harnessing our worldclass clean energy resources will play an essential role in strengthening the country's economy and combating the climate crisis. From renewables to energy efficiency, clean energy offers a variety of

employment opportunities. What's more, those who might struggle to find work in rural areas now have more access to good paying jobs, such as those in solar farm construction.

Tax payers lose millions of dollars to solar farms, as they are subsidized in order for utility companies to sell electricity at generous low rates.

Various provisions in the Internal Revenue Code support investment in utility-scale solar energy equipment. These provisions reduce the after-tax cost of investing in solar property, thereby encouraging taxpayers, businesses, investors, independent power producers, utilities, and other entities to invest in solar. Solar projects contributed an estimated \$564 million in state and local taxes and land-lease payments in 2021 alone. For every dollar of renewable energy tax credit claimed, the state and local governments receive an amount of the tax revenue. This means that the renewable energy income tax credit resulted in significantly more money invested in our communities than the value of the credit.

Once land is used for solar farming, it is highly unlikely it will ever be farmed again.

Land can be reverted back to agricultural uses at the end of the operational life for solar installations. A life of a solar installation is roughly 20-25 years and can provide a recovery period, increasing the value of that land for agriculture in the future. Giving soil rest can also maintain soil quality and contribute to the biodiversity of agricultural land. Evidence suggests that the long-term effects of solar panels on farmland are minor and manageable, especially because decommissioning plans and budgets are standard in the initial project development phase and lease agreements. Additionally, by leasing a portion of land for solar, landowners gain a steady stream of income, and as a result, are able to keep the land in its original form during hard economic times.

You could be stuck with the cost of decommissioning these solar farms.

The solar developer is responsible for decommissioning the solar farm in almost every case. Decommissioning plans and budgets are typically standard in the initial project development phase and lease agreements. Some counties require a decommissioning plan to be submitted as part of the permitting process for new solar PV ground installation projects. Some counties require such decommissioning plans to include the method to be used for ensuring that funding will be available for decommissioning. Some counties go even one step further by requiring solar PV developers applying for permits to provide some sort of performance guarantee in the form of a surety or decommissioning bond.

There is no community benefit with clean energy like solar.

Clean energy can only stand to benefit and enhance your community. Utility-scale solar is a major economic contributor. The industry has invested nearly \$133 billion in projects nationwide. Clean energy provides jobs for more than 415,000 Americans. The U.S. has enough installed clean energy to power 56 million American homes. Solar projects also contributed an estimated \$564 million in state and local taxes and land-lease payments in 2021 alone. Clean energy avoids 86 million cars' worth of CO2 emissions every year.

Solar panels drive down property values.

Analysis from the survey data in the source below shows that there has been no impact on sale price for



residential, agricultural, or vacant residential land that adjoins the existing solar farms included in the study. Additionally, many farmers with solar installed on their land now have a sense of economic security because of the steady stream of income they receive from solar lease payments.

Solar panels are made out of toxic materials.

The most common type of solar panels are manufactured with crystalline-silicon, a non-toxic element, and currently make up 95% of the solar market. Solar panel materials are also enclosed and don't mix with water or vaporize into the air - meaning there is no threat of chemicals releasing into the environment during normal use. In addition, the panels are manufactured to endure all weather conditions and are sealed shut to further ensure public safety. Almost all solar PV panels are made of tempered glass, pass rigorous hail tests, and are regularly installed in Arctic and Antarctic conditions.

Solar energy development is very land intensive.

This is a common misconception. However, the United States EIA predicts that solar farms will only take up 3 million of the available 900 million acres of farmland in the US by 2030. The amount of land dedicated to solar needed to generate enough energy to power the entire country would occupy roughly as much space as coal mines currently take up. Additionally, it is possible to successfully combine solar electricity generation and agriculture on the same piece of land.

Fossil Fuel costs are low, therefore there is no need to invest in other clean technologies for electricity.

Because clean energy sources like solar and energy efficiency technologies don't rely on fuel, there is much more price certainty. Solar and wind output is highly predictable, giving grid operators ample time to adjust to changes in output, unlike conventional power plants that can unexpectedly and suddenly trip offline. Clean energy generation also increases state energy resiliency and security as more energy is produced inside the state and does not need to be imported from other states or countries. Wind and solar energy also saves 113 billion gallons of water a year since they don't need water for cooling, unlike thermal power plants, such as fossil fuel and nuclear power plants. Bonus: unlike traditional, fossilfuel powered sources, the price of renewables continues to decrease even as the technology improves.

Solar panels cause risks from electric and magnetic fields.

Unlike fossil fuel energy sources, solar panels do not produce harmful emissions. There are no confirmed health impacts from solar panels at

levels encountered by the public. In fact, solar panels produce a lower electromagnetic field exposure than most household appliances, such

as televisions and refrigerators.

Solar panels can't be recycled and will contribute to landfills.

Solar power is essentially carbonfree. As the solar industry matures and the first projects reach their end of useful life, the solar industry is working closely with recyclers across the United States to establish comprehensive recycling programs that ensure re-use of as much material and equipment as feasible. A PV panel has a life cycle of 20-30 years. Throughout its lifetime, the panel capacity does not diminish, meaning panels installed in the early 1980s still perform at its original capacity. Even at the end of its life cycle, 90-95% of a PV panel is recyclable. The waste from retiring a PV panel is substantially less than what may be expected

Let's talk energy.

CORPORATE HEADQUARTERS EDF Renewables 15445 Innovation Drive San Diego, CA 92128 858.521-330

www.edf-re.com

