



Office of the Ohio Consumers' Counsel

Your Residential Utility Consumer Advocate

CONSUMERS' FACT SHEET

Office of the Ohio Consumers' Counsel

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RENEWABLE ENERGY SOURCES SOLAR POWER



Courtesy: Dayton Power & Light

What is solar power?

Solar power is a renewable and environmentally friendly option for energy production. Solar power works by using a photovoltaic system to capture sunlight, most frequently in the form of solar panels. This photovoltaic system consists of tightly woven cells that absorb sunlight. When the sun's rays hit the photovoltaic cells, electrons within the cell become excited and can be used as electricity.

The sun is so powerful that even though only a small percentage of its energy actually reaches Earth, it can be used to run a large thermal electric generation power plant. In this type of plant, heat energy is collected from the sun using curved mirrors that evaporate water into steam that then spins electricity-generating turbines.

Solar power in Ohio

Per data from the Solar Energy Industries Association (SEIA), as of late-2018 Ohio ranks 28th nationwide in solar power generation capacity,

with around 21,919 Ohio homes being powered by solar energy and 0.24% of the state's electricity being generated by solar power. Solar prices have fallen 43% over the past five years, and there is projected growth in the industry of 1,023 MW over the next five.

The state is heavily involved with the production of solar panels and other materials needed to harness solar power. Ohio was home to nearly 6,518 solar industry jobs in 2018, with over 292 solar companies within the state. Check out this link for an overview of solar power in our state: www.seia.org.

National solar power outlook

Solar power has seen rapid growth nationwide. According to the Solar Energy Industries Association (SEIA) and the US Department of Energy, solar power generation has increased from 1.2 gigawatts of production in 2008 to around 60 gigawatts in late-2018. That is enough energy to power 11.3 million homes. The industry continues to grow and prices for solar panels have fallen in

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The Office of the Ohio Consumers' Counsel (OCC), the residential utility consumer advocate, represents the interests of 4.5 million households in proceedings before state and federal regulators and in the courts.

The state agency also educates consumers about electric, natural gas, telephone and water issues.

For more information, please visit the OCC website at www.occ.ohio.gov.



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recent years. From 2010 to 2016, solar panel installation costs have dropped more than 70%.

Continued growth in the solar industry is expected as more renewable energy standards and incentives are adopted in the United States. More than thirty states, including Ohio, have adopted Property Assessed Clean Energy (PACE) legislation that allows property owners to obtain financing for solar projects and pay it back through property taxes over a number of years; however, only three states offer PACE to residential home owners. The federal government also offers a 30 percent tax credit for solar installations, which is available through 2019.

Pros and cons of solar power

As with many of the renewable energy resources, solar power is environmentally friendly and does not emit any pollutants.

Using solar power can:

- ▶ Allow for production of energy at home;
- ▶ Lower one's electricity bills;

A solar power system can be expensive. A typical installed solar panel system can range in cost from \$10,000 to \$20,000 depending on scale and location. But as prices fall, demand increases, and financial incentives continue, solar power may be a feasible investment for some. Consumers should carefully weigh the initial costs of installing their solar system versus future savings on their utility bills and make a decision that is right for them.

Additional resources

For additional information on solar power, visit these organizations:

[Department of Energy, Office of Energy Efficiency and Renewable Energy](#)

[U.S. Energy Information Administration](#)

[National Renewable Energy Laboratory](#)