

## HOW DO I GET STARTED WITH SOLAR?



- Check if your home is energy efficient. A home energy audit will help determine the improvement that will be most beneficial before sizing a solar system.
- Check to make sure your roof is good. If it's an older roof, repairs or replacement may need to be done.
- Research solar and solar contractors. Get at least 3 quotes and understand the process before deciding.
- Contact PPEC for advice and assistance; we can provide use history to determine which size of system will be needed.

## DOES A SOLAR SYSTEM HAVE EXPENSIVE UPFRONT COSTS?



The price of PV components varies depending on the size of the system (generating capacity), type and quality of the components purchased, and complexity of the system selected. The good news for consumers is that the cost of PV has declined, while the technology has improved. Installation costs depend on the size and complexity of the system, but also on your home layout and construction.

For example, a simple, south-facing roof allows for an easier install than a roof with hips and valleys. In addition, some homes require structural or wiring upgrades. An average 4-kw system may cost between \$10,000 and \$20,000 to install, before credits and incentives. This is based on a typical installed cost of \$2.50 to \$5 per watt of distributed generation capacity.

To determine your costs, look for online calculators to estimate your pricing and get bids from reputable installers.

## HOW CAN I KNOW IF A SOLAR SYSTEM WILL WORK ON MY HOUSE?



To begin, you can look at factors such as which direction your home faces, the condition of your roof, and obstructions such as trees and other buildings that may block the sun during the peak generation period of 9 a.m. to 3 p.m. Solar contractors can provide a more detailed analysis on what to expect, and your cooperative can offer advice, too.

## HOW LONG DO SOLAR SYSTEMS LAST?

- Certified systems generally are reliable, with a life expectancy of about 30 years.
- Manufacturers test panels for hail impact, high wind, and freeze-thaw cycles to represent real-life situations.
- Most manufacturers offer 20- to 25-year warranties for panels; extended warranties may be available at an extra cost.
- Little maintenance is required; occasionally it may be necessary to rinse modules off with water to remove dust and grime.

## WILL A SOLAR SYSTEM PAY FOR ITSELF QUICKLY?



The payback period can range from fewer than 10 years to more than 20 years, depending on the system cost, available rebates and incentives, the amount of electricity produced, and the retail price of electricity.

*\* If you want a quick return on investment, scheduling an energy audit is your best choice. PPEC's Energy Advisor can help you determine which energy-efficiency improvements will save you the most money monthly.*

## HOW MUCH ELECTRICITY CAN I GENERATE?



- It depends on the size of your system. You can determine how much electricity you want to produce; then size your system accordingly.
- A system that will generate 100% of your energy needs is expensive, so most systems are sized to generate only a portion of your home's needs.
- It also depends on your site. If you have a shade-free area from 9 a.m. to 3 p.m., you'll be able to collect more sun and produce more energy than if your site is shaded by trees.
- Your region is a factor as well. The more sunny days in your area, the more electricity you'll be able to generate.

## CAN I STORE POWER AND USE IT AT NIGHT OR ON CLOUDY DAYS?



Battery-backed or grid-independent systems use on-site energy storage to hold excess energy produced during the day for use at night or when the sun is not producing enough power. Choosing this option will add significant cost and maintenance to your system. Most people opt for grid-connected systems for reduced cost, maintenance, and high reliability. With this type of system, PPEC continues to provide energy to you when you 24/7/365.

Your PV system will produce energy, and even excess, on sunny days. Your system will not collect sunlight at night and on cloudy days. That means you will continue to need to draw electricity from your cooperative during these times when your array cannot keep up with your demand.

## CAN I STILL GENERATE POWER AND USE IT DURING AN OUTAGE?



Most grid-connected PV systems shut down to prevent backfeeding electricity into de-energized power lines that may have fallen or that line crew members may be working on. It's important to have this shut-down feature to prevent injuries—and even death—to those working high-voltage power lines.

## HOW DO WE GENERATE ELECTRICITY FROM THE SUN?



Solar energy systems work when sunlight hits a solar panel and causes electric current to flow. The current produced from the panels is controlled and regulated by an inverter, which converts the current needed for use by household appliances. The electrical panel is where the power gets distributed throughout your house; any excess electricity may be sent from the panel back to your cooperative's power grid.

## DOES THE CO-OP OFFER NET METERING?

PPEC offers Net Billing (not Net Metering). The co-op will credit any power above and beyond what your home does not use, and we will credit you at the "avoided cost" (the generation charge only).

## OFFICE HOURS

Monday- Friday, 7:30 a.m. to 4 p.m.  
Toll free: 800-686-2357

## ADDRESS

401 McDonald Pike  
Paulding, Ohio 45879

## HAVE YOU JOINED OUR SMARTHUB?

SmartHub is Paulding Putnam Electric Co-op's free online bill payment system which allows you to report a power outage, receive outage notifications, and monitor your energy use. Have account access on demand for your mobile devices, tablets, and computers.



**Proudly serving members in Adams and Allen Counties in Indiana. Allen, Defiance, Paulding, Putnam and Van Wert Counties in Ohio.**

If you have questions about solar energy, call our office and ask for PPEC Energy Advisor Peter Niagu.

*Find us on Social Media*



**Website:** [www.PPEC.coop](http://www.PPEC.coop)

# Solar Energy

## Frequently Asked Questions



**paulding putnam**  
ELECTRIC COOPERATIVE, INC  
Your Touchstone Energy® Cooperative