

Common Solar Myths Busted

Are you thinking about going solar but don't know where to turn for accurate information? As the Valley's solar experts, we're busting common myths so you can decide if going solar is right for you.

We receive a lot of questions and have seen misrepresented information on social media about solar power. Some of the information is accurate while other information is not. You can rest assured that your Local Power Company and TVA have you covered. We want to ensure you have accurate information to make the best, informed decisions about solar energy.

Here are some considerations:

Myth: You have to own a home to go solar

FACT. Anyone can support solar regardless of whether you rent or own, or where you live - apartment, duplex, dorm or at home. For renters and those who can't or don't want to install solar, community solar is a smart investment for anyone who cares about the environment. Today, with TVA's help, more than 1.4 million Valley residents have the option to choose community solar from their Local Power Companies. If community solar isn't available, TVA offers another easy option - [Green Switch](#). Green Switch is priced at \$2 per 200 kWh block of energy, customers of [participating Local Power Companies](#) can purchase blocks of electricity generated by renewable sources. Both of these options remove many of the roadblocks for solar adoption – cost, shaded rooftops and home ownership. Contact your Local Power Company to see if a community solar program or Green Switch option is available to you.

Myth: Solar is the only energy source we need

FACT. There is no doubt that solar power has environmental and grid stabilization benefits but solar energy is not available 24/7. Even with the technology available today, you can't directly plug your hot water heater, heating and air conditioning system, refrigerator or small appliance into your solar panel and expect it to run. Therefore, we need other sources of energy to ensure you can power your life around the clock. The good news is that over 50% of the electricity you use in the Tennessee Valley is carbon-free.

Myth: Solar power is free energy

FACT. While sunshine is free, there is a cost to harness the sun's energy and convert it to energy that can be used to power your home or business. [TVA's Solar Calculator](#) can help you determine the cost and payback of installing solar at your home or business.

Considering solar panels for your home? Green Connect will provide you with tools and resources to guide you through the process. Visit www.TVAGreenConnect.com or call 1-866-673-4340 to learn more.

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Myth: Solar panels operate at 100% efficiency from sun up to sun down

FACT. We wish this were true because it would solve a lot of our energy problems. According to EPA data for the Tennessee Valley, a small-scale installation delivers maximum efficiency only 18% of the time – generally on clear, sunny days when the sun is directly overhead. Actually, this is a good thing because during the summer we generally need the most energy between 1pm-5pm – the sweet spot for solar generation.

Even though solar can't power our lives 24/7, you can count on your Local Power Company and TVA to deliver energy with 99.999% power reliability.

Myth: Solar panels are ugly and take up too much room

FACT. Beauty is in the eye of the beholder. While we acknowledge some people believe solar takes up space that could be used for other purposes like growing food or wildlife habitat, adding solar power to our technology mix is good for our communities. Because we care about the environment, TVA continues to invest in solar programs and a good example is [Music City Solar from Nashville Electric Service \(NES\)](#). NES transformed an abandoned landfill into the city's first community solar park. If we are smart, we can have solar, help the environment and keep our communities beautiful.

Myth: Solar systems don't operate in cold temperatures

FACT. Photovoltaic (PV) systems actually generate more power at lower temperatures. Like most electronic devices, they operate more efficiently when it's cooler. PV systems generate less energy in the winter than in the summer, but that's due to the combination of fewer daylight hours and lower angles of the sun, not to cooler temperatures.

Myth: Solar panels are 100% safe for the environment

FACT. Solar panels provide 100% carbon-free energy, but there is a trade-off. Solar panels contain hazardous elements such as lead, chromium and cadmium making it difficult to disassemble and recycle them. A 2017 study from [Environmental Progress](#) found that solar panels create 300 times more toxic waste per unit of energy than nuclear power plants. If you go solar, we recommend that you recycle your solar panels properly to help protect the environment.

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Myth: TVA's proposed rate structure blocks private roof top solar

FACT. TVA and your Local Power Company support solar, and federal law ensures your right to put a private solar energy system on your home or business. It's important to remember that solar power is not the lowest cost energy source on our electric grid. We are committed to a pricing structure that ensures we are fair to everyone so you are not subsidizing your neighbor's solar system through your power bill. Ultimately, it's your money. We want to provide you with low-cost electricity to keep it where it belongs – in your pocket.

Myth: Solar panels are maintenance free

IT DEPENDS. To achieve peak performance, certified solar professionals recommend that homeowners clean panels regularly to remove dirt and other substances, such as bird droppings, that have accumulated to ensure maximum access to the sun's rays. With regular monthly maintenance there is still an annual degradation of the panels, generally estimated at 0.5%. Pros also recommend an annual inspection of connections, cables, panels, rooftop mounting, DC isolator switches and inverters. The inspection costs vary, so it is smart to shop around if you can't do it yourself.

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Myth: I can easily take my solar system with me if I move

IT DEPENDS. There are several factors when considering moving with your solar system:

1. Home Value – a solar system may increase your home value, but that depends on several factors, such as market value, area, age of panels, buyer's preference, etc.
2. Cost of moving and reinstalling your solar system on your new property
 - Condition and characteristics of your new property's roof that could impact the overall cost
 - Shading and sun availability on your new home
 - Location – new location rules and regulations for solar installs (contact your Local Power Company for specific guidelines pertaining to your new area)

We encourage you to contact your solar system installation company to understand your options.