

Solar Facts & Myths



Here are a few solar facts and myths to consider before deciding if solar is right for you:

Myth: I can use my solar power during a power outage. When the power goes out, grid-tied systems go out as well, unless you have a battery backup. That's because it's not safe to be pushing electricity back onto the electric grid while workers may be trying to fix the problem. The inverter (the big box near your meter that converts DC electricity created by the panels into usable AC current) recognizes that the power is out and automatically shuts off the system.

Fact: There are federal tax credits to offset the cost of residential and commercial solar energy systems. The federal solar energy tax credit can be claimed on federal income taxes for a percentage of the cost of an installed solar energy system. The current tax credit is 30 percent of the cost of a system that is fully installed. This is a non-refundable tax credit, which means it will only offset the amount of Federal Income Tax owed. A homeowner will not receive a refund check if the amount of the credit is more than the amount of Federal Income Tax paid. The tax credit does not apply to homeowners who lease a solar energy system. For a detailed explanation of this tax credit program, go to energy.gov and use the search term "Residential and Commercial ITC Factsheets." It is always a good idea to check with your tax preparer or CPA if you're considering installing a solar energy system.

Myth: Solar panels won't work on cloudy days. While clouds can decrease the production efficiency of solar panels, they don't render them useless. Solar panels use light to generate electricity, so they will still operate without the sun shining directly on them.

Fact: BTU will buy the extra solar power I don't use. In the BTU service territory, for any month in which a solar energy system produces more energy than a home draws, BTU will purchase the excess energy based on the current fuel rate, which is presently about \$0.03 per kWh. At the end of a billing cycle, the total amount of energy put back onto the grid is subtracted from the total amount of electricity that was drawn from BTU.

Myth: The hotter the temperature, the more energy the solar panels will produce. Just as with any other electronic equipment, solar panel performance declines as the panels get hotter. Most photovoltaic (PV) panels are efficiency rated at 77 degrees Fahrenheit. As the panel temperatures rise above 77 degrees, the output of the PV cells fall. Each PV panel manufacturer lists a "temperature coefficient," which quantifies the amount of efficiency lost as the panel temperatures rise. Usually, this temperature coefficient is relatively small, but it is compounded as the temperatures rise. In our hot climate, the output of a PV panel can be reduced by 10 to 25 percent during the hottest of our summer months.

Fact: You don't need a solar energy system to run your home on renewable energy. Want to support renewable energy sources without installing a solar energy system? Check out BTU's RENEWability program to purchase 100 percent wind and solar energy. Go to btutilities.com and click on the "Energy Efficiency" link to get information on RENEWability, solar, SmartHOME, or other energy programs from BTU.