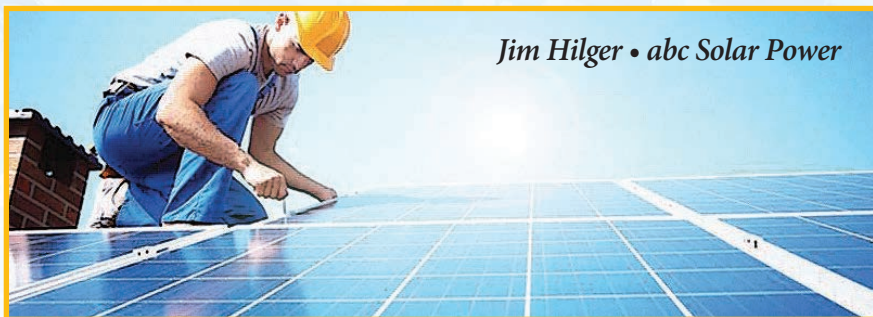


How Does Cold Weather Affect Solar Power? *And Does It Work When the Sun Doesn't Shine?*



Jim Hilger • abc Solar Power

Simply stated, most electronics, like solar panels for example, perform at their best in colder weather. Heat is their enemy. It can cause solar panels, as with most other electronics, to shut down and not perform at all. Cooler temperatures boost electrical conductivity, while hot temperatures diminish it.

FUN FACT: Solar panels can convert any type of sunlight into electricity, which means light that is reflected from snow to your array can help lower your electric bill even more.

The next time you wake up to find snow on your solar array, don't sweat a loss of production. The snow on your modules will have many benefits... a professionally installed solar array can handle the best that Mother Nature can throw at it.

FUN FACT: For regions with an extremely high snow load, there are unique solar panels with more resistant glass covers and particularly solid frames.

I know what you're thinking—the days are shorter, and snow will temporarily block my solar panels from the sun. You are correct. The days are shorter; however, solar is about peak hours and your panels positioning with

the sun. And don't forget, snow will reflect additional light onto the panel, increasing its productivity.

FUN FACT: Montana and Wyoming receive, on average, 5.3 peak hours of sunlight daily throughout the year. This is very good, and when compared to southern states, many homeowners are doing better than comparable projects down south.

At *abc Solar Power USA*, we use sophisticated solar-path-modeling equipment, along with weather data and average snow loads, to estimate your solar production potential. Average homes with 750 sq. feet of roof space can typically generate 12,900 kilowatt-hours of AC power per year.

FUN FACT: When you use the grid for Net Metering, your solar energy output is tracked on an annual basis. Therefore, you will benefit from pushing power into the grid during high-output summer months, and then drawing power at cheaper rates during the winter months. Overall summer solar (higher output) vs. winter solar (lower output) is not a critical issue when using the grid as back-up. We design your system to always have power.

Solar arrays will absorb the

sun's heat as well as light. Typically they are installed to face the sun and are on a slope. This means that snow will easily slide off the panels, cleaning them in the process. Our racking systems and solar panels are installed to handle heavy, wet weather and several inches of snow build-up.

IMPORTANT FACT: We do not recommend clearing snow from your solar arrays, as this might damage the panel and void its warranty. Please leave your ladder where it's at, and let the sun do its thing. We would rather that you enjoy a hot chocolate than access a dangerous and difficult area on your roof!

Solar power is a great investment to power your lifestyle... No matter the time of year. ■

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