



SUNFARM ENERGY SOLAR FRIDAY

SOLAR & EXTREME WEATHER

An illustration at the top of the page features three stylized orange clouds of varying sizes. A single orange lightning bolt strikes downwards from the rightmost cloud.

How well does a solar PV system hold up during extreme weather?

We're no strangers to extreme weather here on the Gulf Coast, and we get plenty of questions about how storms might impact a system.

The good news is **solar panels hold up very well in extreme weather situations.**

A study conducted by the National Renewable Energy Laboratory (NREL) on 50,000 PV systems installed during a seven year period found that only 0.1% of all the systems reported damaged or under performing panels each year.



Solar panels are manufactured to handle high winds, even during a hurricane.

Manufacturers constantly test modules to make sure they can tolerate an extreme weather event like a hurricane.

Most panels are certified to withstand up to 2,400 pascals, or the equivalent of 140mph winds.



During an extreme weather event, solar can help keep your roof intact.

Part of our installation process includes attaching racking pieces to the trusses of your roof to ensure stability and strength.

The added layer of PV modules not only keeps traditional asphalt shingles from flying off, the system can also help keep your roof attached!

Just ask the folks at Tyndall Air Force Base after Hurricane Michael in 2018.





— Roof Faces Without Solar

— Roof Faces With Solar

Homes with solar suffered significantly less roof damage than those without.



Panel manufacturers also ensure that modules can withstand rain.

Solar panels use aluminum and glass casings to hold each solar cell in place.

These pieces are highly waterproof, ensuring there is no water damage during heavy rain.



What about hail?

Solar panels are consistently tested to remain durable during hail storms.

Most panels are certified to withstand hail up to 25mm (or one inch) falling at 23 meters per second (approximately 50mph).

During a major storm in Golden Colorado in 2017, hail stones shattered car windows and left dents in vehicles and roofs. But the storm was no match for a nearby PV array.

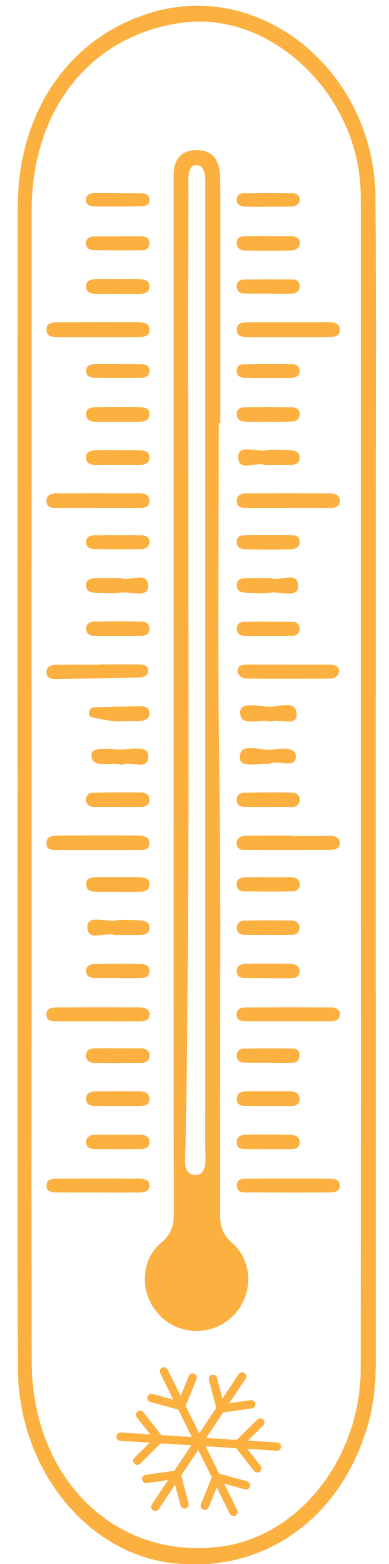
Only 1 panel out of more 3,000 suffered any damage.

Solar panels perform more efficiently in colder weather.

If you followed the news out of Texas this past winter, you might have heard some misinformation about renewable energy in colder temperatures.

Solar panels perform well in colder weather, and power output can even improve. White snow can also reflect light and improve panel performance.

While we don't see much snow here on the Gulf Coast, we still experience some colder temps. Even during the winter months, a PV array will continue to generate clean, reliable power.





**Have more questions about solar and storms?
Just give us a call.**

#SFESOLARFRIDAY

