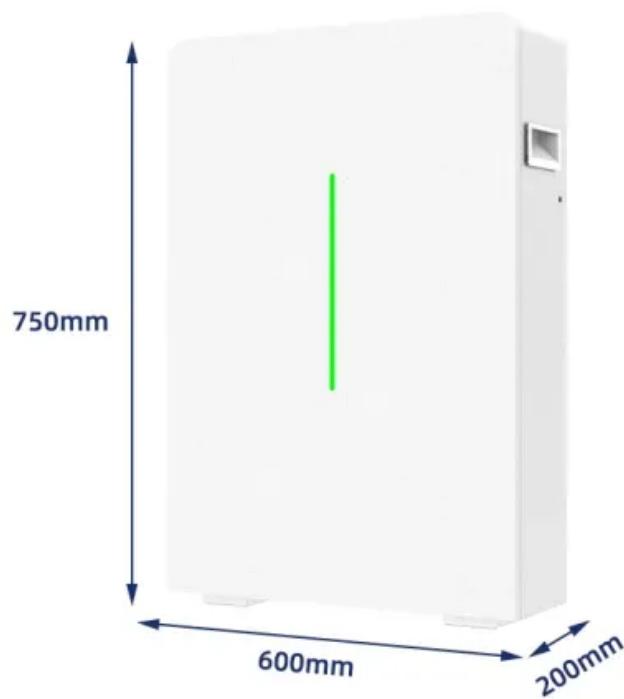


# Hard solar panel service life



## Overview

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A modern, monocrystalline solar panel usually lasts around 30-40 years, depending on its quality, the conditions it has to endure, and how well it's been maintained. How can I extend the lifespan of my solar panels?

Here are some tips that can help you extend the lifespan of your solar panels: Investing in a high-quality solar photovoltaic system from a reputable manufacturer like FusionSolar is the first step toward ensuring long-term performance and durability.

How long do solar panels last?

High-quality solar PV modules are typically warranted for 25 to 30 years. However, warranty terms only represent a baseline, not the end of useful life. Many Tier 1 modules continue to perform well for 35-40 years, though at reduced efficiency. Performance warranty typically guarantees  $\geq 80\%$  output at year 25.

What factors affect the lifespan of solar panels?

Several factors impact what affects the lifespan of solar panels, including: Quality of Materials: Panels made with premium photovoltaic cells degrade more slowly. Weather Conditions: Extreme heat, hail, heavy snow, and strong winds can accelerate wear.

How long do photovoltaic panels last?

The U.S. Department of Energy says photovoltaic (PV) modules should last about 30-35 years. Many panels keep making electricity much longer. Your panels won't just stop working after 30 years. They'll make less electricity gradually but stay functional.

How long will NREL solar panels last?

NREL's median degradation rate of 0.5% means a typical solar panel system will still operate at about 90% of its original capacity after 20 years. Even with

a higher degradation rate of 0.8%, your panels would keep about 84% efficiency after the same period. Some systems perform better than expected.

### Do solar panels need maintenance?

Regular maintenance is key to fully maximizing the life of a solar panel system. Panels free of dust, debris, and other obstructions can operate at peak efficiency. In contrast, neglected panels can experience reduced performance due to obstructions that block sunlight or lead to overheating.

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### Contact Us

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