# The Soaring Popularity of Solar Panels: Advantages and Current Trends



**Rising Popularity of Solar Panels: Benefits and Trends**

Solar panels are gaining traction as a preferred energy solution for homeowners looking to save on energy bills and reduce their carbon footprint. In 2022, over 220,500 solar panel installations were recorded by the low-carbon certification organization MCS, with a 30% increase reported by Solar Together in 2023.

A survey by Solar Together revealed that 35% of respondents without solar panels are likely to adopt solar energy within the next five years. Among those who already have installed solar panels, 31% cited the rising cost of living and energy bills as their primary motivation, while another third aimed to reduce their carbon emissions. Nearly half (47%) of existing users reported significant reductions in their energy costs.

George Frost, UK manager at iChoosr, noted the increasing affordability of solar panels, which also add value to properties. Joanna O’Loan from the Energy Saving Trust highlighted that solar panels can be installed on a variety of surfaces and typically require minimal maintenance, lasting at least 25 years.

Solar panels do not need direct sunlight to function and can generate electricity on cloudy days. The Energy Saving Trust estimates that a typical 3.5kWp system costs around £7,000, with potential savings amplified by battery storage systems. The cost of a 7.5kWh battery is approximately £6,500.

The Smart Export Guarantee (SEG) allows homeowners to receive payments for exporting surplus energy back to the National Grid. Revised tariffs and electricity prices influence potential savings, with a typical small detached home capable of saving around £495 annually.

Keith Newey from Powerland stated the typical payback period for solar panel installation ranges from six to ten years, depending on several factors including sunlight and energy consumption. Solar panels are environmentally beneficial by reducing fossil fuel reliance and carbon emissions.

In the U.S., solar panel costs vary by state. In Arizona, average home solar systems cost $28,426 before federal tax credits, and $19,898 after. Arizona benefits from low solar costs, with the average payback period being 11 years. State incentives and federal tax credits further reduce costs, although net metering programs have been replaced by the Resource Comparison Proxy (RCP), which compensates excess energy at a lower rate.

Energy storage through batteries is recommended to optimize savings, especially under time-of-use rates. Batteries also provide backup power during outages and are becoming more cost-effective.

Overall, the integration of solar panels presents a viable solution for homeowners to cut energy costs and contribute to environmental sustainability.