

SOLAR PANEL

Safety & Recycling



SOLAR PANELS ARE SAFE



Crystalline-silicon solar technology represents most of the solar panel market share. This type of panel is non-hazardous and constructed with an aluminum frame, glass, copper wire, polymer layers and a backsheet, silicon solar cells, and a plastic junction box.



While some styles of modules could contain trace amounts of cadmium, it is a conductive material used in a safe way exclusively within the electronic components and shielded from the environment in the watertight body of the module.



All types of energy are generated somewhere, and every energy generation site is at risk of being affected by a natural disaster like a tornado or hurricane. A natural disaster is just that - a disaster that could have a devastating effect on any industry or structure. Critically, standard modern solar equipment is designed and rigorously tested to withstand extreme weather conditions, including hail, extreme temperatures and tornado-force winds.

SOLAR PANELS ARE RECYCLABLE



Many components of a solar panel can be recycled. Glass composes most of the weight of a solar panel (about 75 percent), and glass recycling is already a well-established industry. Other materials that are easily recyclable include the aluminum frame, copper wire, and plastic junction box.



Other components of a solar power system may include inverters, racking, and battery backup systems, which may also be recycled. Inverters may be able to be recycled with electronic waste, and racking may be recycled with similar scrap metals. Battery-based grid energy storage systems may be handled with current battery recycling programs. Solar panels are recyclable. Waste from end-of-life solar panels present opportunities to recover valuable materials and create jobs through recycling.



According to the International Renewable Energy Agency, by 2030 the cumulative value of recoverable raw materials from end-of-life panels globally will be about \$450 million, which is equivalent to the cost of raw materials currently needed to produce about 60 million new panels.

*Source: U.S. Environmental Protection Agency
International Renewable Energy Agency*