Solar

We get most of our energy from the sun. We call it **solar energy**. It travels from the sun to the Earth in rays. Some are light rays that we can see. Some rays, like x-rays, we can't see.

The sun is a star. It is 100 times wider than Earth. The sun is made mostly of hot gases. It sends out huge amounts of energy every day. Most of the energy goes off into space. Only a small part reaches the Earth, but this amount is large enough to provide energy for many things!

Solar energy is light energy.

Solar Energy

We use solar energy in many ways. All day, we use sunlight to see what we're doing and where we're going.

Sunlight turns into heat when it hits things. Without the sun, we couldn't live on the Earth—it would be too cold. We use the sun's energy to heat water and dry clothes.

Plants use the light from the sun to grow. Plants take the energy in light and store it in their roots and leaves. That energy feeds every living thing on Earth. We can also burn plants to make heat.

Image courtesy of Adobe Stock via morrowlight

Some people hang clothes outside to dry in the sun.

The Sun's Energy Is in Many Things

The energy from the sun makes rain fall and wind blow. We can capture that energy with dams and wind turbines.

Coal, oil, and natural gas were made from prehistoric plants and animals. The energy in them came from the sun. We use that energy to cook our food, warm our houses, run our cars, and make electricity.

©2026 The NEED Project Elementary Energy Infobook www.NEED.org

Solar Energy Is Renewable

Solar energy is free and clean. There is enough for everyone, and we will never run out of it. Solar energy is renewable. The sun will keep making energy for a very long time.

Why don't we use the sun for all our energy needs? The hard part is capturing the sunlight. It shines all over the Earth, and only a little bit reaches any one place. On a cloudy day, most of the light never reaches the ground at all. Solar energy provides one percent of the energy the United States uses each year.

We Use Solar Energy

Lots of people put **solar collectors** on their roofs. Solar collectors capture the sunlight and turn it into heat. People can heat their houses and their water using the sun's energy.

Solar cells can turn solar energy into **electricity**. Some toys and calculators use solar cells instead of batteries. **Solar panels** are made of many solar cells. Some people put solar panels on their homes. These solar panels can make enough electricity for a house. Solar panels are good for houses, buildings, and equipment without access to power lines.

Today, solar energy provides about seven percent of the electricity we use, but the amount we use is growing each year. In the future, it could be a major source of energy. Scientists are always looking for new ways to capture and use solar energy.

Image courtesy of Adobe Stock
Solar panels on a home's roof turn solar energy into electricity.