

SOLAR POWER

Solar power is power produced from the energy of the Sun.

If we could harness all the energy that arrived on Earth from the Sun, in one hour there would be enough to power the whole world for a year!

Electricity from the Sun's energy

Solar panels can make electricity from the Sun's energy. We use electricity in our everyday lives to power our appliances and devices, and for heating and lighting our spaces.

Solar power is

- Renewable (it will not run out)
- Sustainable and non-polluting
- Very safe

>> What solar powered objects, gadgets or technology do you notice in your community?

How do solar panels make electricity?

Solar power is all around us. But how does it work?

When sunlight hits photovoltaic (PV) cells, tiny particles in the cells (called electrons) get excited and travel down wires, producing electricity. New Zealand has about 5-6 hours of sunshine each day, enough to make a lot of electricity using only the power of the Sun.

Solar panels and PV cells

To collect the Sun's energy, we use 'cells' made of special materials. These cells are called **photovoltaic** cells (or PV cells).

We can think of '**photovoltaic**' as 'light electricity'.

- 'Photo' comes from the Greek word 'pho', which means 'light'.
- 'Voltaic' comes from the word 'volt'. We use 'volt' as the unit for measuring the strength of electrical energy.

The **photovoltaic** cells are joined together in a **solar panel**.

Something to think about

What do you imagine could be solar powered in future?