

[Article 02] What is Renewable Energy?

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Important: *This article was rewritten to make it easier for students to understand.*

What Is Renewable Energy?

Renewable energy comes from natural things like the sun and wind. These are always there and never run out. Fossil fuels like coal, oil, and gas take millions of years to form and can make the air dirty. Renewable energy is cleaner and better for our planet. It helps keep the air clean and gives people jobs. It's also getting cheaper and easier to use in many places, which helps fight climate change.

SOLAR ENERGY

Solar energy comes from the sun. Even on cloudy days, we can use the sun's energy. We use special panels called solar panels to change sunlight into electricity. These panels can last about 30 years and have become much cheaper. Solar energy can give us heat, light, and power for many things. Every country can use solar energy, even if some places get less sunlight than others.

WIND ENERGY

Wind energy uses big windmills called wind turbines to catch the wind and turn it into electricity. These turbines can be on land or in water. Wind energy has been used for a long time, but new turbines work better and make more electricity. Some places have a lot of wind, which makes wind energy a good choice. Wind turbines out at sea can also make a lot of power.

GEOHERMAL ENERGY

Geothermal energy comes from the heat inside the Earth. We can use this heat to make electricity by drilling holes in the ground. Some places have naturally hot spots under the ground, which are great for this. This way of making energy has been used for over 100 years and is very reliable.

HYDROPOWER

Hydropower uses the energy of moving water, like rivers and waterfalls, to make electricity. We can store water in big lakes called reservoirs or use the natural flow of rivers. Hydropower is the biggest source of renewable energy for making electricity. It needs steady rainfall to work well. Making hydropower plants can change the land and affect animals, but small hydropower plants are better for the environment and can help small communities.

OCEAN ENERGY

Ocean energy comes from the movement of seawater, like waves and tides. This energy can be used to make electricity or heat. Ocean energy technology is still new and being tested, but it has a lot of potential because the ocean is so big.

BIOENERGY

Bioenergy comes from plants and other organic materials. This can include wood, plants, and even animal waste. These materials can be burned to make heat and power or turned into liquid fuels for cars. Most bioenergy is used in rural areas for cooking and heating. Modern bioenergy can use crops and waste from farms and forests. Burning bioenergy makes some pollution, but not as much as fossil fuels. We have to be careful with bioenergy because growing too many plants can harm forests and use up too much land.