



RENEWABLE
&
NON-RENEWABLE
ENERGY

Electricity

How does electricity get to your house?

- Electricity is made at a generating station by huge generators, generating stations can use wind, coal, natural gas or water.
- The current is sent through transformers to increase the voltage to push the power long distances.
- The electrical charge goes through high-voltage transmission lines that stretch across the country.
- It reaches substation, where the voltage is lowered so it can be sent on smaller power lines.

- It travels through distribution lines to your neighbourhood. Smaller transformers reduce the voltage again to make the power safe to use in our homes. These smaller transformers may be mounted on the poles, or sitting on the ground (they're the big green boxes, called pad mount transformers).
- It connects to your house and passes through a meter that measures how much your family uses.
- The electricity goes to the service panel in your basement or garage, where breakers or fuses protect the wires inside your house from being overloaded.
- **Never touch a service panel! It is only to be operated by your parents or a professional.**
- The electricity travels through wires inside the walls to the outlets and switches all over your house.

Non-renewable energy!



- Most of the electricity in the UK is made by non-renewable power stations.
- These burn gas, coal or oil, to create some steam.
- Gas, coal and oil are fossil fuels, they will run out one day because they are non-renewable.
- When burning these fuels, they can cause serious damage to the environment because they produce carbon dioxide.

Renewable energy!

We are starting to use sources that are way better for the environment, such as:



SOLAR PANELS



WIND-TURBINES



HYDROELECTRIC DAMS



Solar Panels!

They use the sun light and convert it into electricity.



Wind-turbines!

Wind-turbines
use the power
of the wind to
turn the
generator.