



Our environment - influences and adaptations



Wind
Hydro
Solar

Hydro

- ★ Hydro power is the use of falling or fast running water to produce electricity or to power machines
- ★ It is a method of sustainable energy production
- ★ Scotland has been effectively using hydro power schemes for around 100 years
- ★ Currently around 5000 GWh (gigawatt hours) of electricity from hydropower is produced every year, which is enough to power around half of scottish homes
- ★ Scotland now has 85% of the UK's hydroelectric energy resource
- ★ Around 12% of Scotland's electricity comes from hydroelectric generation



Lanark hydro-electric scheme



- ★ It opened in the 1920s and consists of two power stations on the river Clyde
- ★ It has created electricity for over 17,000 homes in the UK
- ★ Ever since it opened it has been working with environmental groups to make sure they produce clean, green energy
- ★ It produces clean energy without emitting greenhouse gases or carbon dioxide into the atmosphere

Wind

- Wind power in Scotland is the fastest-growing renewable energy technology with more than 9,000 MW of installed wind power capacity as of June 2020.
- The Scottish Government has achieved its target of generating 50% of Scotland's electricity from renewable energy by 2015, and hoped to achieve 100% by 2020.
- The wind energy in Scotland has enough energy to power 20 million homes.
- In Scotland wind energy is the biggest with 66% of the power being used across Scotland.

SeaGreen Project Wind Farm

- The seagreen project is located 27km off the coast of Angus in the North sea.
- The price of this wind farm is more than £3billion which makes it one of Scotland's most valuable wind farms.
- Seagreen is also Scotland and the world's largest and deepest wind farm.
- Seagreen wind farm has approximately 114 turbines, and the farm will reach 1.6million households in 2023.

Solar

- ❑ Solar technologies currently account for 410MW of our electricity of our electricity generation capacity in Scotland, enough to power around 90,000 homes
- ❑ Solar PV panels in Scotland are a form of clean, renewable energy and are an increasingly popular alternative method to electricity.
- ❑ Despite the country's latitude, solar panels work perfectly and are highly efficient in Scotland.