Power the UK

We rely on many different power sources to generate electricity. This is called the 'energy mix'. About half of our current energy mix comes from low-carbon sources (those that don't release carbon emissions, like nuclear, wind and solar). But by 2032, the Government wants this to represent 85% of our energy mix.

Your challenge is to consider the pros and cons of each power source, then decide how much each should contribute to a low-carbon energy mix in 2032... Are you ready?

THINGS TO CONSIDER

- How can we **REDUCE** our reliance on polluting fossil fuels?
- How can we **INCREASE** our use of low-carbon power sources?
- How will we generate **ENOUGH electricity** to meet demand...
- ... Especially as we will need **MORE electricity in the years up to 2032.** Electric cars will replace petrol vehicles and more of us will use electricity for heating too.

Gas

Gas power stations burn gas to turn water into steam, which drives a turbine to produce electricity.

Pros	Cons

We generate about **40%** of electricity from gas today; how much should we get from gas by 2032?

%

Nuclear

Nuclear energy comes from the energy stored in an atom. These are tiny particles, but they generate a huge amount of power.

Pros	Cons

We generate about **20%** of electricity from nuclear today; how much should we get from nuclear by 2032?

%

Wind

Wind turbines capture the power of the wind and use this to generate electricity.

Pros	Cons

We generate about **15%** of electricity from wind today; how much should we get from wind by 2032?

%

Coal

Coal power stations burn coal to turn water into steam, which drives a turbine to produce electricity.

Pros	Cons

We generate about **7%** of electricity from coal today; how much should we get from coal by 2032?

%

Solar

Photovoltaic (PV) panels turn energy from the sun into electricity.

Pros	Cons

We generate about **3%** of electricity from solar today; how much should we get from solar by 2032?

%

Hydro

Hydro power comes from capturing the energy of moving water as it passes through turbines.

Pros	Cons

We generate about **2%** of electricity from hydro today; how much should we get from hydro by 2032?

%

GOVERNMENT INTERVENTION

Whoever's in charge of the country has a big influence over our energy mix – as well as international laws. The Government's commitment to tackling climate change, for instance, is behind the move to an 85% low-carbon energy mix. It also plans to phase out polluting coal stations by 2025 (this is a clue!) to meet climate change targets.

Download the Pod's **Energy information pack** or play the **Power the UK game** to learn more about electricity and how we can achieve an 85% low-carbon energy mix.

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