

What's the truth about Nuclear power?

Life as we know it would be impossible without electricity. In January 2008 the government gave their approval for the development of new nuclear power plants to generate electricity in the future, but is this the best solution to Britain's electricity needs?



For
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We need three things from our energy and electricity.

It's got to be as cheap as possible, it's got to be reliable, and it's got to do as little damage to the environment as possible. We're in trouble on all three fronts. Oil has reached \$100 a barrel - in 1998 it was less than \$10 a barrel - dragging gas, coal and electricity prices up with it.

Britain now imports more gas than it exports and the main gas (and oil) reserves are in the Middle East and the former Soviet Union - not necessarily the most reliable suppliers.

And despite growing fears of climate change the world is using a lot more energy than in 1992.

Things can only get worse. As countries like China and India develop their economies, based largely on coal we'll see world energy use double by 2050.

Yet we have to cut releases of 'greenhouse gases' like carbon dioxide by perhaps four-fifths.

We need to use energy as efficiently as possible. We need to look for ways of capturing the carbon dioxide from coal and gas-fired power stations. We also need to use more renewables, although when it comes to the electricity needs of our most vital services we can't always rely on the wind blowing, or the tide being in, or the sun being out. We need a lot of electricity from sources that don't depend on the weather.

So why nuclear? It's probably the cheapest option, certainly at current gas and coal prices... if it isn't, then nothing the government said yesterday will force anyone to build new stations. The fuel - uranium - is widespread. And it doesn't add to serious releases of carbon dioxide. Is it perfect? No. Are its problems minor compared to energy shortages and climate change? Resoundingly yes.

Against
John Sauven
Executive Director
Greenpeace UK



Nuclear isn't the answer. Even if Britain built ten new reactors, nuclear power could still only deliver a four per cent cut in carbon emissions some time after 2025, a fact that even the Government admits. It's too little, too late, at too high a price.

Nuclear can only produce electricity, but 86 per cent of our oil and gas consumption is for purposes other than producing electricity. Most of the gas we use is for heating, hot water and for industrial purposes.

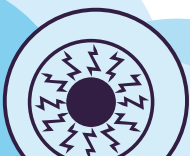
It's a similar case for oil as it's virtually all used for transport - nuclear power can't take its place either. Unless the government is proposing nuclear cars and nuclear kettles, nuclear is almost irrelevant to energy security and climate change.

The real solutions to the energy gap and climate change are available now. Energy efficiency, cleaner use of fossil fuels, renewables and state-of-the-art power stations like they have in Scandinavia.

Together they have the potential to deliver reliable low carbon energy quicker and cheaper. They are also safe, unlike nuclear. But these technologies will be strangled if cash and political energy get thrust at nuclear power.

Gordon Brown very recently committed the UK to generating around 40 per cent of our electricity from renewables by 2020. If he means it, Britain could become a world leader in clean energy, but at the moment Germany has 300 times as much solar power and 10 times as much wind power as the UK and has given up on nuclear.

Going for nuclear allows politicians to project the impression that they are taking difficult decisions to solve difficult problems. In reality going nuclear will not solve our energy problems. Other low carbon technologies will.





Get into pairs. Look at the two articles over the page, and answer these questions:-

1. For each article, find three things which are a **fact** and three things which are an **opinion**.
2. Imagine you have to help an MP write a speech about nuclear power.

Choose whether you will be **for** or **against**.

Write a list of five facts from this sheet that you could put into the speech.

3. Look at what the IAS scientists have said about their work.

Is it all facts, or are there some opinions?

If there are opinions, are they supported by facts?

Think of a question to ask them about what facts their opinions are based on.

At a Glance

% of electricity generated by nuclear

Lithuania	80%
France	78%
Switzerland	40%
Germany	28%
UK	19%
Finland	22%
US	19%
South Africa	6%
India	3%
China	1%

Nuclear Facts

- There are more than 400 nuclear power stations across the globe, generating about 17% of the world's electricity.
- No new reactors have been built in Britain since the 1980s.
- There are 19 working nuclear reactors in the UK, at 10 different power stations.
- All but one of these reactors are due to close in the next 20 years as they will have outlived their 20-25 year life expectancy.
- In 2006 19% of the electricity generated in the UK was from nuclear. 1.1% was from wind power and 3.6% was from other renewable sources.

