

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?



Nuclear power is not the answer - Major renewables boost urgently needed

Building a new generation of nuclear power stations is not the answer to the UK's energy problems Friends of the Earth warned today. They also say it will do little to help tackle climate change and would steer investment away from renewables hindering the UK attempts to meet the EU target of 20% UK energy from renewable sources by 2020.

Friends of the Earth director, Tony Juniper, said: "The decision to encourage the construction of new nuclear stations is irrational and unfortunate, and will be very expensive. We are being taken back to a failed technology that has cost us billions of pounds and left lethal radioactive waste that will remain deadly for tens of thousands of years."

They also say:

- Britain can meet its energy needs, maintain energy security and tackle climate change more quickly and sustainably through a programme of renewables, energy efficiency, combined heat and power and cleaner carbon technology.
- Replacing nuclear plants would only deliver around 4-5 % of UK energy consumption.
- After 50 years of nuclear power we still don't have a long-term strategy for dealing with waste.
- A new nuclear programme would encourage other countries to go down the dangerous nuclear route, with potential implications for nuclear weapons proliferation.
- The Government's public consultation was a sham. It failed to provide adequate information on the dangers of nuclear power or the alternatives available and Ministers had already made up their minds in favour of nuclear power.

Friends of the Earth Press Release 09/01/2008

Nuclear power is the short term answer

Most of the responses from the major environmental groups implied that because nuclear power couldn't solve all our energy problems, it should be ignored. That is as foolish as arguing that because the wind doesn't blow every day, we shouldn't develop wind power.

"The earliest a new nuclear power station could come on stream is around 2017," says the Green Party's Caroline Lucas. But since when was global warming a problem that ceased in 2017?

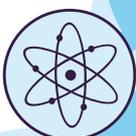
Of course nuclear power generates "radioactive waste that will remain deadly for tens of thousands of years." But, unlike the deadly carbon dioxide being produced at the rate of billions of tonnes a year, spent nuclear fuel can be buried out of harm's way.

Tom Burke - former director of FoE says: "forget nuclear, go for clean coal with its emissions captured and buried underground" but that technology requires at least another decade of development before it is commercially possible.

It would probably have been better if we had spent the last half century investing in renewables rather than nuclear. But nuclear is a proven way of generating large amounts of electricity at competitive cost and with low carbon emissions.

Even if the future really does lie in renewable energy, it is senseless to ignore what nuclear can offer in the meantime.

The Daily Telegraph 18/01/2008



Gordon Brown goes nuclear

BRITAIN is to build a new generation of nuclear power stations with NO LIMITS to the amount of energy they supply. At least 40 per cent of our energy will come from state-of-the-art plants. That is twice current output – and ministers confirm that new suppliers could ultimately provide ALL our energy needs.

Britain now gets just 20 per cent of its power from nuclear plants. France gets 80 per cent – and the UK is set to follow suit.

A Whitehall official said last night: “Nuclear power is the only realistic option for our future. We must not rely on other nations.”

Britain’s security will be in peril if we continue to rely on Russian despot Vladimir Putin or Middle Eastern states for our gas and oil.

Mr Hutton said: “The energy landscape is changing. The idea that Britain can meet its growing power needs through renewable energy and greater efficiency is nonsense.”

Britain will be unable to cope over the next 50 years on coal, gas and oil stocks. Wind farms are too costly and have huge opposition.

A new generation of plants will also dramatically cut our CO₂ emissions.

Moderate environmentalists agree nuclear power is a better solution to global warming. But Friends of the Earth’s Roger Higman slammed nuclear power as a “discredited dinosaur”, saying: “Britain can meet its energy needs, maintain energy security and tackle climate change with a programme of renewables, energy efficiency and cleaner carbon technology.”

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Nuclear ‘not answer’ say Lib Dems

The Lib Dems have attacked the decision to build new nuclear power stations, saying the focus should be on renewable energy sources such as wind power.

Environment spokesman Steve Webb told MPs alternative energy ideas were “evolving practically every day”. But Business Secretary John Hutton, who announced the government’s proposals, said the Lib Dems still harboured “old prejudices” against nuclear power.

Mr Webb claimed the technology involved in the government’s nuclear programme could be obsolete by the time any plants - due around 2020 - were built.

He said: “Isn’t there a danger with new nuclear that we are going to lock ourselves in rigidly to a technology, for the best part of a century, when other technologies like carbon capture and storage, like renewables, are evolving practically every day?”

Mr Webb added: “new nuclear very clearly isn’t the answer to the energy problems we face today.”

bbc.co.uk/news 10/01/2008

Look at the four articles and answer these questions:-

1. Say if each article is **for** or **against** nuclear power. Or are they truly **impartial**?
2. For each article, identify three **facts** and three **opinions**.
3. Find out the **average** power output in megawatts over a **year** of Drax power station, Sizewell B and an average wind turbine. (There are resources in the ‘more info’ section on the IAS website to help you)
4. How many wind turbines or Sizewell Bs would it take to replace Drax? Based on this, how much emitted CO₂ would this save? Can you find an estimate of the energy it takes to build and decommission the facilities? How does this change the comparison?
5. It’s estimated that in the UK in 2006 **7.2 terawatt** (10¹² watt) hours of electricity were used by appliances on standby. How much CO₂ would be released by a coal-fired power station to generate that much electricity? How many wind turbines would it take?

