

Our Position Paper on:

 **friends of
the earth**
see things differently



NUCLEAR POWER

IN A NUTSHELL

We do not support the building of new nuclear power plants in the UK.

The UK is blessed with huge resources of renewable energy such as offshore wind, tidal and solar. According to independent experts, these can provide all the energy we need. Renewable energy also does not have the problems of existing nuclear power technologies.

THE FACTS

- 1** “No-nuclear pathways are certainly technically possible,” says Professor Dave Mackay, former Government Chief Scientific Officer in the Department of Energy and Climate Change (DECC).
- 2** Nuclear power produces waste that is dangerous for thousands of years. Decades after the first nuclear power plant opened in the UK there still isn't a safe storage site for the waste.
- 3** The world-leading climate energy and research institute, the Tyndall Centre at Manchester University, independently reviewed evidence for and against nuclear power. It concluded that Friends of the Earth's non-nuclear approach is credible, although challenging.
- 4** Although producing electricity from nuclear power is healthier than coal or gas, renewable energy combined with energy efficiency is a much healthier solution.

THE PROBLEM

Because of the need to prevent dangerous climate change it is necessary to close down fossil-fuelled electricity power stations and replace these with low-carbon alternatives. At the same time, to reduce carbon pollution even further, we need fossil fuel-powered transport and heating to switch to low-carbon electricity. This will substantially increase the amount of electricity that the UK needs, even with improvements in energy efficiency.

This is one of the reasons there are calls for new nuclear power stations. Another is the variable output from wind and solar. Finally there is a minority of people opposed to renewable energy who would prefer to see more nuclear power.

But the nuclear industry has a number of problems, including nuclear waste, risks of catastrophic impacts and a poor record of building power plants on time and to budget.

These problems are down-played by the nuclear power lobby, which is very strong in the UK and deeply embedded within Government. Meanwhile, there are concerns about existing jobs, and the companies involved in construction and operation of nuclear plants have deep pockets to fund lobbying.

All this makes it difficult to win the argument for an alternative, greener energy vision.

WHAT WE THINK

Since its inception in 1971 Friends of the Earth has opposed nuclear power. We are an evidence-based organisation, and regularly review our policies.

In 2013 we commissioned the Tyndall Centre at Manchester University to independently review the evidence for and against nuclear power. They found that:

- The non-nuclear energy pathway that Friends of the Earth advocates is credible and compatible with the capabilities of a future electricity grid. The Tyndall Centre recommended we regularly revisit our position, in case technology doesn't develop as expected (for example, offshore wind or energy storage). We will, of course, do this.
- The health impacts of coal and gas are worse than nuclear power, even with carbon capture and storage (CCS) in place. The health impacts for renewables, according to Tyndall, are broadly comparable to nuclear; however this assessment did not account for all health impacts resulting from nuclear accidents (for example, mental health impacts as a result of relocation).
- Nuclear waste management remains an “unresolved issue” in the UK, with no safe repository in place. A new nuclear programme would increase the overall radioactivity of nuclear waste stores by around 265%. Any safe storage for this waste is decades away at best – if ever.
- Higher estimates of the cost of nuclear power are more plausible than low estimates. According to Tyndall: “claims that nuclear power is cheaper than other low-carbon options (including CCS and wind) are unlikely to be borne out in reality”.

After proper consideration of the Tyndall report, we decided that continued opposition to new nuclear power stations in the UK is still the right position.

We will also oppose any life extensions to existing nuclear power plants if there are any significant safety concerns or if they crowd out renewable power.

We do not oppose research into new potentially safer forms of nuclear power, such as thorium nuclear power, but our current assessment is that we are unlikely to need them in the future. The priority for research funds must be energy efficiency and renewable power.



*Right:
Sizewell
Nuclear
Power Station
in Suffolk*



KEY REFERENCES

Friends of the Earth's energy pathway:

www.foe.co.uk/resource/briefings/decc_pathways.pdf

Friends of the Earth, 2014. Submission into European Commission inquiry on nuclear energy:

www.foe.co.uk/sites/default/files/downloads/foe-response-eu-state-aid-investigation-nuclear-hinkley-46130.pdf

Tyndall Centre for Climate Change Research (2013), A Review of Research Relevant to New Build Nuclear Power Plants in the UK:

www.foe.co.uk/sites/default/files/downloads/tyndall_evidence.pdf

Friends of the Earth briefing (2013), Why Friends of the Earth opposes plans for new nuclear reactors:

www.foe.co.uk/sites/default/files/downloads/nuclear_power_friends_of_t.pdf

Friends of the Earth (2012), A Plan for Clean British Energy:

www.foe.co.uk/sites/default/files/downloads/plan_cbe_report.pdf

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