

Britain at the energy cross-roads

November 2001

Britain stands at a cross-roads in energy policy. The Government is currently conducting an energy review looking at how the UK's energy will be produced over the next 50 years. Two of the key factors that are driving this review are the need to achieve energy security (and not be reliant on foreign oil and gas supplies) along with the need to massively reduce our discharges of carbon dioxide which causes global warming.

One option for Government would be to adopt renewable energy technologies such as wind, wave and solar power. These technologies are all clean and reliable and there are easily enough resources in the UK to power our economy – British wind power alone could generate three times our total electricity needs. A strategy based on renewable energy would also be complemented by the introduction of comprehensive energy efficiency measures which could slash our energy needs and save huge amounts of money.

Alternatively, the Government could fall back on nuclear power which would generate electricity but create huge problems in terms of safety, pollution, security and cost. Unfortunately, there are good reasons for believing that the Government is actively considering a new programme of nuclear power stations. The energy review itself is under the guidance of Brian Wilson, a Minister at the Department of Trade and Industry and a high profile advocate of nuclear power (the Hunterston nuclear power station is in his constituency). It is also well known that state-owned British Nuclear Fuels Ltd (BNFL) is pushing for a programme to build between six and ten new nuclear power stations next to the sites of current power plants.

However, any future energy strategy based on nuclear power would be fatally flawed because:

- The nuclear industry inflicts unacceptable harm on people and there is no safe level of exposure to radiation eg: the rate of childhood leukemia around the BNFL plant at Sellafield is 14 times the national average
- The nuclear industry inflicts unacceptable damage on the environment eg: the Irish Sea is already the most radioactive sea in the world because of discharges from Sellafield
- There is no current technology available for safely dealing with the highly radioactive waste from nuclear power plants. These wastes remain dangerous for thousands of years.
- Nuclear power stations are vulnerable to terrorist attack with appalling consequences
- The reprocessing of nuclear waste into new fuel creates thousands of kilograms of plutonium which is difficult to store and could fall into the hands of terrorists or hostile states which would use it to make nuclear weapons. Only 4kg of plutonium are required to make a nuclear bomb

- The nuclear industry could not build new nuclear power stations without hundreds of millions of pounds in subsidies from the taxpayer who would also end up funding the multi-billion pound liabilities after the stations closed

Rather than face this catalogue of threats it would be wiser to adopt an energy strategy which combined renewable energy with high levels of efficiency. This would be a safe and reliable option and would also help to combat global warming. A Government-backed report from The Carbon Trust concluded that Britain could meet ambitious targets to cut greenhouse gas emissions without building any more nuclear power stations. Ian McAllister, who chairs the trust and is also chairman of Ford of Britain, said: "Nuclear is a red herring in this particular debate: you can achieve your low-carbon economy without nuclear."

The Government-funded Energy Savings Trust (EST) has also concluded that a mixture of energy efficiency measures and renewable energy schemes could contribute more to Britain's net energy balance than the power provided by a programme of new nuclear power plants. Eoin Lees, chief executive of EST and formerly a scientist at the UK Atomic Energy Authority, has said: "If renewable energy sources are expanded in the way we expect by 2010 I do not believe there is a need for major new investment in large centralised nuclear or coal plants."

Any reasonable assessment of the facts would conclude that nuclear power has no viable future in British energy policy. Greenpeace is campaigning to prevent any new stations from being built while also supporting the establishment of new renewable energy plants. However, the nuclear industry in Britain is not just concerned with the generation of power, BNFL is also involved in the production of plutonium as part of so-called 'nuclear reprocessing' at Sellafield.

Nuclear reprocessing involves the extraction of plutonium from old nuclear fuel rods and its mixing with uranium. This mixture – known as 'MOX' – is then put into new fuel rods which can be used in some nuclear power stations. This process is presented by BNFL as 'recycling' but in reality the whole reprocessing industry represents nothing more than the industrial production of plutonium which could subsequently fall into the hands of rogue states or terrorists. There are already safer and less expensive options for dealing with the current plutonium stockpile and trying to produce more is both dangerous and reckless.

Plutonium is one of the most dangerous materials in the world. Only a few kilograms are required to make a nuclear weapon but far less is needed to manufacture a 'dirty bomb' (a conventional explosive with a plutonium wrapping that causes widespread contamination when detonated). There is no safe dose for plutonium and it is recognised that even inhalation of one thousandth of one gram can lead to cancer.

The Government has recently decided to approve the operation of an industrial-scale MOX plant at Sellafield but this move has not gone unopposed. Greenpeace and Friends of the Earth have launched a legal challenge whilst the Irish Government has launched a legal case of its own. The Norwegian Government is also considering going to court to stop the plant.

