

Future nuclear power: Addressing the barriers

About a quarter of Britain's electricity is presently supplied by our 14 nuclear power stations – but these stations are getting old with half due to be decommissioned by 2010 and no plans to replace them. By 2023 all but Sizewell B will have shut.

So where does this leave us in relation to global warming? Decreasing our reliance on fossil fuels is essential if the UK is to meet its 2010 Kyoto target, which calls for greenhouse gas emissions to drop 12.5% below 1990 levels. Present predictions show that the UK will actually increase its greenhouse gas emissions this year.¹

Nuclear power is almost carbon neutral, so can we afford to ignore it as a source of energy? Some prominent environmentalists think not - James Lovelock has stated '*We have no time to experiment with visionary energy sources...Nuclear power is the only green solution*'² The UK's largest power firm, British Energy has suggested that to meet future energy demands the government must consider maintaining the current level of nuclear capacity³. This would require about 10 new nuclear power stations before 2025.

But nuclear power has a negative image. The present sites have produced toxic waste that will be a burden to future generations and there are still suggestions of cancer clusters surrounding nuclear power stations. With memories of the Chernobyl disaster in 1986, the fire at Windscale in 1957 and recent heightened fears of terrorism, is nuclear power still perceived as too risky?

This seminar aims to look at some of the issues surrounding people's perception of nuclear power. Should these factors rule out a return to a nuclear energy strategy in the UK or can they be dealt with in any future nuclear build? The seminar will look at the nuclear waste problem and how it could be reduced or negated in future reactor designs. The issue of cancer clusters around nuclear power stations will be examined in the light of a recent UK study⁴. The seminar will cover nuclear safety and security concerns. What are the risks and can we control them? How does the nuclear safety record compare to other forms of energy production? Finally, the seminar will ask, if the benefits can be demonstrated, can the British public be persuaded of the case for nuclear power?

1 <http://news.bbc.co.uk/2/hi/science/nature/4399323.stm>

2 Published in the [Independent](#), 24 May 2004

3 <http://www.energy-choices.com/page.aspx?pagelid=7>

4 Committee on Medical Aspects of Radiation in the Environment (COMARE) 10th Report: The incidence of childhood cancer around nuclear installations in Great Britain, (2005) - www.comare.org.uk