

DOES THE NUCLEAR OPTION PROVIDE A SOLUTION TO GLOBAL WARMING?

**Dr. Ian Fairlie, Consultant on Radiation in the Environment, London
(fairlie@dsl.pipex.com)**

MYTH: Nuclear power does not create CO2

REALITY: Although most reactors do not produce CO2 the nuclear fuel cycle does, (mining, processing, fuel enrichment, dealing with waste, transportation) are all carbon intensive. The amount of CO2 created depends on the grade of the uranium ore and the method of enrichment used to process the uranium. The Co2 per kWh released is anything from a third of gas fired stations (with high quality ore and optimistic assumptions) but can be more than gas fired stations (if using lower quality ore.) Most uranium rich seams have already been exhausted meaning that the Co2 needed to extract equivalent amounts of uranium will increase with time.

MYTH: Producing UK power with nuclear can cut greenhouse gas emissions.

REALITY: Electricity generation is responsible for 25% of annual CO2 production. But nuclear can not respond to varying electricity loads throughout the day, there is fixed output of power. Therefore nuclear could only make a contribution of 25% of UK electricity generation. And of course there are other greenhouse gases. Therefore the actual potential for reduction is only about 5%.

MYTH: Nuclear is a cost effective way to reduce emissions.

REALITY: To build the proposed AP 1000MW reactors would cost approx 1.4-2 billion pounds per reactor if 10 were built. Therefore the total cost would be around £14 to 20 billion. This would only be possible with massive government subsidies. Pound per pound studies estimate that nuclear is 5 to7 times less cost effective than efficiency/renewables in reducing CO2 emissions. (Lovins 2001).

FACT: the DTI have consistently invested 2 to 3 times more in nuclear energy than on renewable and novel sources. In 2004 the figures were 57.8million pounds on nuclear and only 19 million pounds on renewables.

www.dti.gov.uk/expenditureplan/report2004

FACT: the estimated time needed to get legal clearance, carry out public inquiries, training and construction etc for a nuclear reactor is 10-15 years from the time of the decision. **THERE IS NOT TIME TO WAIT!**

FACT: the government's own reports say that until a method to deal with nuclear waste has been found no programme of nuclear fission should be carried out. No method exists. (Flowers report 1976)

Nuclear is not a cost effective, viable or safe solution to global warming and does not address the core problem of unsustainable energy use.