April 2006

Overview of the Greenpeace response to the Department of Trade and Industry's Energy Review consultation document 'Our Energy Challenge' (January 2006)

Greenpeace submits its views on the Energy Review consultation launched in January 2006[1]. Although Greenpeace has chosen to respond to the consultation document, it does so with some resignation regarding the likely impact of our response. This resignation is borne out of the following observations:

- That the Government has largely failed to implement the recommendations put forward by the Energy Review 2003 (*Our Energy Future* – February 2003)
- That with the exception of a higher than expected increase in oil and gas prices, none of the justifications put forward in the Government's Consultation Document for launching a new Energy Review two years earlier than expected were not predicted and accounted for when formulating the 2003 Energy Review
- That the 2003 Energy Review - formulated over a matter of years with the aid and assistance of the widest spectrum of energy stakeholders ever brought together -concluded that renewable energy and energy efficiency should constitute the central planks of the UK's energy future, with unfavourable economics and unsolved nuclear waste issues rendering the nuclear option unattractive.
- That it's failure to formulate and deliver effective policies in light of the 2003 Energy Review recommendations is the main driver behind the Government's seemingly renewed enthusiasm for nuclear power (and hence this Review), not climate change and energy security as it officially states.

Greenpeace is concerned that if the consultation process is intended as the basis for a new policy proposal on nuclear power, then in our view it is wholly inadequate, hasty, uninformed and its outcome apparently prejudged (Annex 15)

The following submission sets out in detail the case against nuclear power as a solution to climate change and energy security. It also sets out the case in support of wholesale reform of the energy system in order to bring about a truly holistic, decentralised energy system that genuinely incentivises rapid deployment of renewable energy at all levels, makes efficient use of gas supplies as a necessary bridging fuel and provides a framework for achieving demand reduction across all sectors.

Very briefly, our submission states that:

[1] '*Our Energy Challenge: Securing clean, affordable energy for the long-term'* – Department of Trade and Industry, January 2006

- **Nuclear power will not stop climate change** – according the Sustainable Development Commission, even if the current fleet of nuclear reactors was doubled, it would still only give an 8% cut in CO2 emissions by 2035. This compared to the Government's target of 60% by 2050, which itself is most likely an underestimate of the reductions necessary to avoid dangerous climate change.
- **Nuclear will not ensure energy security –** Currently, only 30% of the gas used in this country is used for electricity generation. The remainder is used for heating. As nuclear power plants produces electricity only, nuclear power can only assist in mitigating our exposure to foreign gas markets for one third of our imports. Even within this third, a replacement nuclear programme would only provide around 20% of our electricity capacity. Its effect in terms of lessening our dependence on foreign fuel supplies would therefore be minimal at best.

Nuclear power is illustrative of the hugely wasteful centralised energy model that has developed over the last 50 years. It is an inflexible, costly power source that along with other forms of centralised electricity generation wastes two thirds of the primary energy available in the fuel before any electricity even leaves the power station. In conventional centralised power stations, this energy is thrown away in the form of heat either as cooling water or as steam that evaporates from cooling towers. It is this profligate waste of energy at the point of electricity generation that decentralised energy seeks to mitigate. Heat wasted in this way is equivalent to the entire space and water heating needs of every single building in the UK. By decentralising points of generation and locating them next to areas of demand, the wasted heat can be captured and used to provide heat for homes offices and industry.

Our submission argues that the application of decentralised energy constitutes a genuinely achievable pathway that will deliver greater cuts in CO2 and greater energy security than the centralised, nuclear option. Research commissioned by Greenpeace (Annex 6) demonstrates that by 2023, pursuit of a decentralised energy approach to heat and electricity provision across the UK as a whole could deliver:

- CO2 savings 17% greater than under a centralised nuclear energy scenario.
- Reductions in overall gas consumption 15% greater than compared to a centralised nuclear scenario.
- Capital cost savings of £1bn compared to centralised nuclear scenario.

According to the findings of the international meeting of climate scientists held last year in Exeter, even a delay of five years could significantly undermine our efforts to tackle climate change[2]. Gradual, but expedited, decentralisation of the energy system will enable the UK to facilitate deployment of renewable energy and demand reduction measures immediately using technologies that already exist and are ready

[2] '*Avoiding Dangerous Climate Change: Scientific Symposium on Stabilisation of Greenhouse Gases'* - Executive Summary document, Department of Environment, Food and Rural Affairs, January 2006 See: http://www.defra.gov.uk/environment/climatechange/internat/pdf/avoid-dangercc-execsumm.pdf (last accessed 12/04/06)

for widespread take up. In contrast it is unlikely that a new programme of nuclear power can deliver any new capacity for at least a decade. What is needed by Government at the crucial stage in the fight against climate change is not a throw back to the energy mistakes of the past, but a shift towards an energy system that reflects the needs of the 21st Century to use cleaner energy and use less of it.

Greenpeace calls on the Government to take the opportunity presented by this energy review to recognise the outdated, fragmented and inherently wasteful structure of our existing energy system and begin the process of wholesale regulatory and market reform that is necessary to make decentralised energy the mainstay of the UK's energy system for the decades to come.