

Responding to 'Our Energy Challenge'

Introduction

- The Government has decided for the second time in five years to review its energy policy. It is currently consulting the public. A consultation document can be found at <http://www.dti.gov.uk/energy/review/>. Responses are invited by 14th April 2006.
- Many people in the energy community, including some experts involved with the last review, don't see any need for another energy review. They say the Government should get on and implement the policies set out in the 2003 Energy White Paper on energy efficiency and renewable energy. [1]

Nuclear – a small and expensive contribution to mitigating climate change

- Climate change is undoubtedly a very serious problem, but nuclear power can only ever make a small contribution to reducing carbon dioxide emissions. It supplies only 8% of total energy in the UK. We need to look at policies for the whole energy system, including transport, not just electricity. Even if we replaced all our nuclear reactors with gas and coal power stations by 2020 carbon emissions would only increase by 4%-8%. It would be far more cost effective to improve energy efficiency and reduce energy use. [2]
- In practice, building new nuclear stations would divert scarce resources from more cost effective solutions, such as renewable energy, and energy efficiency, to the more expensive nuclear option. This would mean we would be saving far less carbon per pound spent, so would be counter-productive. [3]

Nuclear – not a reliable source; we should focus on using our gas efficiently

- The idea that building more nuclear power stations will somehow make our energy supplies more secure than if we import gas is a fallacy. Nuclear power has not proven to be a cheap or reliable source of electricity. In any case most imports for the next decade or so are likely to come from Norway, Belgium and the Netherlands – not Russia, as the Energy Review consultation paper acknowledges. If we are serious about gas security we should be using it much more efficiently – not burning it wastefully in big power stations, but using it in local power stations, which also generate hot water for district heating. These combined heat and power plants could significantly cut our need for gas. [4]
- By combining the production of heat and electricity it is possible to extract twice as much useful work from gas for every ton of carbon emitted into the atmosphere. The Government originally set a target for these Combined Heat and Power (CHP) Stations of 5 GW by 2000. This target was missed, and was only

reached in 2005. It also has a target of 10 GW of CHP by 2010. With the right measures in place, this could still be achieved. [5]

Nuclear waste problem not solved

- The 2003 Energy White Paper said it was not proposing new nuclear power stations because there are "*important issues of nuclear waste to be resolved*". Now the Government highlights the fact that its Committee on Radioactive Waste Management (CoRWM) will deliver its recommendations on waste management in July 2006. But a report cannot be a solution to the nuclear waste problem. CoRWM chair, Gordon MacKerron, says the recommendations should not be interpreted as a green light for building new nuclear stations. [6] CoRWM says: "*If Ministers accept our recommendations, the UK's nuclear waste problem is not solved. Having a strategy is a start. The real challenge follows.*" [7]
- The nuclear industry says a new generation of reactors will add only 10% to the volume of radioactive waste, but this is misleading - the volume is not the whole story, we also need to know what type of waste. Ten new reactors will leave us with three times the amount of the most dangerous high-level waste and spent nuclear waste fuel already created by existing reactors. [8]

Security measures make nuclear incompatible with democratic accountability

- The terrorist attacks of 9/11 alerted the world to the potential of nuclear terrorism - making it "*far more likely*", according to the UN's International Atomic Energy Agency (IAEA), that terrorists could target nuclear facilities. [9] Recent events such as: (a) suspicions that terrorists in Australia may have been planning to target the reactor in Sydney; (b) a foiled Chechen plot to crash airplanes into a Russian reactor; (c) reports that detailed plans of Britain's most sensitive nuclear sites, including Sizewell, were found in a car linked to one of the July 2005 London terror suspects; have all served to heighten concerns. [10]
- Terrorism fears mean it is likely that information on nuclear reactors and plans for managing radioactive waste will be withheld for security reasons, preventing public scrutiny of safety assessments for new reactors. Nuclear power is incompatible with a modern, open, transparent and democratic society. [11]

Small-scale technologies could provide 40% of electricity demand

- Barriers to energy efficiency and small-scale generation need to be removed. Households and businesses should be helped and encouraged to make use of new micro-generation technologies, such as solar panels, rooftop wind turbines and modern efficient central heating boilers that also generate electricity. These technologies could potentially provide 40% of UK electricity needs by 2050. [12]

Local authorities central to delivering climate targets

- Local government is uniquely placed with powers and services spanning the full range of activities that will need to be changed to achieve sustainability in energy. Government needs to show leadership and enable local authorities to respond to climate change by sending a strong message that they are key to delivering climate change targets, delivering small-scale renewable energy, micro-generation and energy efficiency; and by seizing the opportunity that large-scale house-building presents to achieve a step change in energy dependence in the housing sector. [13]

Renewables – a 20% target at least for 2020

- The Energy White Paper of 2003 set an ‘aspiration’ that 20% of our electricity needs should come from renewables in 2020 with a target of 10% by 2010. Now is the time to turn that 2020 aspiration into a firm target, and ensure that the mechanisms are put in place to achieve it. The renewable energy industry is still a new industry. It deserves Government support to help get it off the ground, unlike nuclear power that has received subsidies for the past 50 years and has failed. With extra support offshore wind can deliver significant amounts of power quickly, [14] and with wave and tidal we have the chance to establish world-beating industries that can export to the rest of the world. [15] The Government’s Biomass Task Force identified nearly 3GW of electrical power available from biomass like straw, farm slurry and sewage. [16]

Wind Intermittency – an exaggerated myth

- A recent report commissioned by the Department of Trade and Industry demonstrated that wind power produces more electricity at times when demand is highest, and less electricity when demand is low. In other words, intermittency need not be a problem with a diversified portfolio of wind power developments around the UK delivering electricity during all hours. [17] The Sustainable Development Commission agrees. Wind output can be accurately forecast and increasing the proportion of wind power in the electricity system does not require greater ‘back up’ capacity. [18]

Nuclear – no solution to fuel poverty

- Nuclear power offers no solution to fuel poverty. It is expensive, so even if private investors can be persuaded to build new reactors, the cost of the electricity produced will not be low enough to make any impact. Reducing the energy required by those living on low incomes to keep warm is the most effective way of tackling fuel poverty. For example, a staggering 40 per cent of the UK's social housing does not have cavity wall insulation. [36] Just this one measure could replace the carbon saved by one new nuclear station.

- The installation of micro-generation by public housing providers could play an important role in tackling fuel poverty by delivering affordable heat and electricity.

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