

## **Performance & Innovation Unit [PIU] Energy Review.**

Friends of Eden, Lakeland and Lunesdale Scenery [FELLS] input to the Review.

### The need for a long-term view

1. Energy is par excellence a sector where a long-term view is needed. Analysis of the factors likely to affect energy policy, and energy security, involve study and knowledge of long-term trends at home and abroad. Action affecting demand must of necessity be patient, continuing and sustained. As to supply and distribution, lead-times vary. But here too they can be very long - for example in the development of new sources of energy supply and new technologies, or of different modes of transport. The British establishment has for many years - and as a general rule - focused on short-term considerations. This trend has been strengthened on the political side by the short - essentially 4-year - electoral time horizons. It is therefore desirable, not only that the Government should develop a long-term approach, but also that it should gather around it as broad as possible a measure of cross-party support.

### Joined-up policies

2. There is no way in which energy can be seriously considered in isolation from other policies, such as industry, transport, environment, tourism, development control, education or taxation.

### Learning from others in Europe

3. Since the first oil crisis in 1973, the European Union has played a very active role in many relevant fields. We should learn from the experience of our partners, and not try re-inventing the wheel. A number of references are made below to a publication of the former Directorate-General for Energy of the Commission entitled "European Union Energy Outlook to 2020" [ISBN 92-828-7533-4] - hereinafter referred to as the Energy Outlook paper. It contains invaluable data.

### Influencing demand

4. FELLS welcomes the clear recognition in the PIU Project Scoping Note of the need for the management of energy demand. For a long time, an endless growth in energy demand has been assumed by the establishment to be inevitable. Indeed, the Energy Outlook paper [page 12] expects the growth rate of primary energy consumption to continue around 1% per annum to 2010, despite improved energy efficiency. But another recent Commission publication, the Action Plan for Energy Saving, showed that savings of 18% of current energy demand could be obtained, without technical difficulty, if authorities put more effort into energy saving.

5. The British Government has a poor record on this, and needs to do far more. The first step is to persuade the public that this is something worth doing, and worth paying for. It will not be easy.

6. Particular attention needs to be paid to the transportation sector, which by 2020 is expected to account for almost 1/3rd of EU final energy consumption, and is likely to produce nearly 2/3rds of the overall increases in CO2 emissions between 1995 & 2010 [pages 13 & 14 of the Energy Outlook paper]. Yet recent Government transport policy has tended to weaken the disincentives to the use of petroleum products in private transport, while failing to meet the acknowledged need for better public transport.

### Energy supply

7. We would urge that the PIU Energy Review should look with equal intellectual rigour at the merits and demerits of every actual or potential source of energy supply.

### Renewable energies

8. In recent years the Government has focused very heavily on renewable energies, and in particular on wind energy. Between 1982 and 2000, for example, wind was the only form of renewable energy receiving direct Government investment. As already stated, FELLS is not opposed in principle to wind energy. But it believes its proponents have a tendency to overstate the advantages and understate the disadvantages.

9. It is clear from the overall statistics that wind energy, after 30 years of rapid development, is still not economically viable without some form of subsidy. A subsidy is an option open to Government. But FELLS believes that the public should know how much that subsidy is worth, and also how much electricity each wind-farm is producing. At the moment wind-turbine developers refuse to publish actual production figures from any particular wind-farm, arguing "commercial confidentiality", in which attitude they are fully supported by Government. FELLS fail to see any valid reason for this lack of transparency.

10. The full title of FELLS makes clear that we are, depending on the location of a proposed wind-farm, often very concerned about the impact on beautiful scenery. But there are other important considerations too. These include noise and flicker impacts on people, and a potential very negative impact on house property values. The biggest single disadvantage of wind-farms, however, is the unpredictability of their output. This can never be guaranteed. As a consequence, electricity suppliers must have constant back-up generating power to replace wind energy as it falls out. In these circumstances, no-one has been able to demonstrate to us beyond doubt that wind energy does actually result in any real reduction of fuel-burn elsewhere.

11. We feel that the Government should focus less on renewable energies which are unpredictable, and more on those which are not. These include landfill gas,

biomass, waste incineration, hydro, solar, wave and tide. Fuel cells are also approaching maturity.

Other forms of energy

12. Finally, we note from the Energy Outlook paper [page 15] that *"a key uncertainty for the period beyond 2020 is the means by which the large number of decommissioned nuclear plants will be replaced. More than 110 GW of nuclear capacity [in the EU] will be retired between 2015 and 2030. Whether this capacity is replaced by nuclear plants or by plants using fossile fuels will make a significant difference to both the emissions and energy outlook of the European Union"*.

13. This issue is particularly important, and also particularly urgent for the UK, where, as paragraph 11 of the PIU Scoping Note points out, 25% of electricity is currently generated by nuclear. As the UK was first in the field with nuclear power reactors, its nuclear capacity is falling out sooner than that of other EU countries. A BNFL news release of 25 May 2000 showed that 4 Magnox stations will fall out not later than the year 2006.

14. There is no prospect whatever of 25% more of our electricity being generated from renewable energy on the above time-scale. We in FELLS share the view of the Government & many NGO's that CO2 emissions must be reduced, and see energy saving as a top priority; but nuclear should in our view be preferred over coal and gas as it does not produce CO2 and has a good safety record.

Professor Joe Shennan  
President