PIU Energy Project
Comments by Lord Ezra

I welcome the energy review which has now been started. It is timely in view of the prospective change in the UK energy scene from self-sufficiency to increasing import dependency. The situation is further complicated by the likely reduction in nuclear capacity from 2010 onwards with its environmental implications. I have called for such a review on a number of occasions in the House of Lords and I am glad that the issue is now being treated with some urgency.

I am particularly impressed with the openness with which the project has been launched. I found the Scoping Note and the DTI initial contribution to the review to be particularly useful. I feel that all the relevant questions have been asked and the issues have been aired. The problem is the large variety of issues and the contradictory nature of many of them. It will be essential, as the review progresses, to identify the main strands of policy which can be coherently introduced.

In order to help with the identification of those main strands I make the following comments which I have grouped under the headings of Supply Diversity, Demand Management, and Environmental Requirements.

Supply diversity

The main feature of the UK energy scene for the past decade or more has been the increasing dominance of gas, accompanied by substantial reductions in coal. Unless other action is taken, the increased use of gas is likely to continue and at the same time more of it will need to be imported, reaching the estimated level of 90% imports by 2020. Since the end of the last war the UK has gone through clearly defined periods of fuel dominance: first there was coal, then oil and now gas. The dominance of the market by

one particular fuel carries considerable risk, especially when that fuel has to be increasingly imported. Therefore, a first priority for UK energy policy in the decades ahead must be to stimulate energy diversity.

This leads to the need for a reconsideration of the main alternative sources of energy, namely oil, coal, nuclear and renewables. Oil is now mainly confined to the transport sector, which it dominates, and to specialised industrial uses. In transport there is therefore a need to introduce diversity by stimulating the use of LPG, natural gas, biomass and eventually hydrogen and fuel cells.

In the main energy market coal should have a continued role to play because of the substantial reserves and the mining skills available in this country. However, environmental requirements mean that a major change in the way in which coal is used will have to be introduced if it is to play a major part in the energy mix. I am glad to note that there is concurrently a review of the case for Government support for commercial-scale cleaner coal demonstration plant. I hope this will lead to a decision to go ahead with such a plant. Unless this is done the prospects for coal playing a significant role in the future energy mix would be much diminished as is made clear in the DTI report. Of the options for a demonstration plant put forward I would favour a CCT gasification plant and at the same time as this is put in hand I would hope that there could be an international project for CO2 capture and storage. I refer to page 10 of the cleaner coal demonstration plant consultation document. If this work could be successfully undertaken I can foresee coal playing a significant role in the period from 2010 onwards when the critical period in the UK's energy mix would be reached through the progressive withdrawal of nuclear plant.

At present, nuclear generation accounts for nearly a quarter of overall electricity generation in the UK. According to the estimate contained in the DTI working paper this could fall to 7–8% by 2020. Further extension of existing plant could be costly in order to meet safety requirements. The

alternative is the construction of some new plant on existing sites. But before this can be done two issues have to be faced. The first is the high capital cost of nuclear plant under existing technology. This might to some extent be overcome with new technology in the pipeline. A more serious issue is the uncertainty over nuclear waste. It is over two years since the House of Lords Select Committee reported on this with what seemed to be a reasonable proposition. But the Government have not yet produced a consultation paper based on these findings, let alone any policy conclusions. Until this process has been gone through and a decision reached on how to deal with nuclear waste, it is difficult to see how there could be agreement on new nuclear stations.

Renewables represent another important way of diversifying supply but as yet limited. The Government have made clear their intention to support the expansion of renewables and have introduced some measures to that end. However, more action is required if the Government's objectives for 2010 are to be achieved and if further progress is to be made thereafter. Any impediments under existing arrangements need to be removed and this refers in particular to the balancing mechanism of NETA. This problem is well known and has recently been reviewed by OFGEM. The conclusion reached in the OFGEM report is that there should be no change in the NETA arrangements and that if the Government wish to give further support to small-scale generators, including renewables and CHP, they should do so as a separate operation. It is therefore urgent that Government come forward with their proposals which should be incorporated in the Energy Review.

There is a strong case for the definition of renewables to be widened. Combined heat and power projects which add immeasurably to the effective use of primary energy should be included in the definition as well as methane from coal mines. Methane from landfill sites is already included and it seems an anomaly that this other important source of methane should be excluded.

Demand management

This is the area where the most determined action is required. In spite of the vital need to use energy more efficiently to cope with the climate change problem, the public perception is that the Government's main objective in energy policy is to keep prices down. Desirable as this may be in helping industrial competitiveness and in alleviating fuel poverty, the down side is that it can stimulate the increased use of energy.

In the industrial sector the Climate Change Levy is intended to correct this. It only goes some way to doing so. Inadequate resources are being devoted to stimulating energy efficiency. The Levy is a deterrent directed at the heavier users of energy. There needs to be positive encouragement to all industrial and commercial users of energy to do so more efficiently. For this purpose the totality of proceeds from the Levy should be used to finance a major scheme for energy efficiency and there should be an expansion of energy service providers.

In the domestic sector the problem is equally difficult. For social reasons VAT on domestic fuel has been kept to minimal levels but more importantly the intense competition for market share which has developed between suppliers of gas and electricity have pushed prices down and has implicitly encouraged consumers to use more rather than less fuel. Changing public attitudes is not going to be easy. One way round the problem would be to consider energy cost in terms of usage rather than in terms of units of fuel delivered. There is a massive inefficiency in the way in which fuel is used in British homes. This is due to the poor structural condition of a large proportion of the total housing stock, as revealed by the House Condition Surveys, and the generally poor standard of insulation. What is needed is a concentrated campaign to bring down the cost of energy in use.

I suggest two ways of doing this. The first is to ensure that there is a widespread and readily comprehensible system of the energy rating of domestic premises. The Standard Assessment Procedure (SAP) has been in existence for some years. But its application is not obligatory. In the case of new build certain SAP standards have to be met. But there is no arrangement at present for ensuring that SAP ratings are applied to existing structures. Some three years ago I introduced a Private Member's Bill to ensure that SAP ratings were established every time a new mortgage was taken out. This unfortunately failed. It could have ensured that a progressively large number of domestic premises were rated. I would like to suggest that some such measure be re-introduced and that in addition there should be a general incentive to householders to rate their premises.

A further measure could be to provide householders with financial assistance to improve the energy efficiency of their home if the certified SAP rating fell below 50. Newly built homes are expected to reach at least 70.

The most effective way of dealing with fuel poverty is to improve the way in which fuel can be used in the homes of the fuel poor. As might be expected they live in the most poorly insulated premises in the country. The purpose of the new Home Energy Efficiency Scheme is to correct this but so far progress has been well below expectation. The Scheme needs to be revised and intensified.

In addition to measures to stimulate public awareness of the need for energy efficiency there should be encouragement for new technological developments. Some of these are very promising. The recent Report on Embedded Generation is to be welcomed. Much work is being done in developing domestic CHP schemes comprehended within the term micropower. These schemes are likely to start with gas-fired domestic generating systems, moving on to fuel cells and photovoltaics. The technical work is being undertaken by commercial firms but support may well be

needed for research and development projects. Furthermore, it is important that the regulatory system should encourage these developments.

Environmental requirements

If the measures indicated on the supply and demand side above are effectively taken, they would substantially contribute to a reduction in emissions and to the achievement of the UK climate change targets. On the supply side the development of clean coal technology and a substantial increase in renewables, within a wider definition, as well as the possible continuance of a nuclear element, could have a major impact in the environmental sense. But the biggest impact could be through demand management and changing public attitudes from considering the cost of energy in terms of fuel delivered to its cost in terms of use. The encouragement of new technologies, particularly associated with embedded generation and micropower, could also make a major contribution.