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ANNOUNCEMENT OF THE STUDY AND INVITATION TO SUBMIT EVIDENCE

The Commission's study of energy and the environment was announced on 28 August 1997 in the following terms:

ROYAL COMMISSION TO STUDY ENERGY AND THE ENVIRONMENT

The Royal Commission on Environmental Pollution is to review energy prospects for the 21st century and their environmental implications. The aim is to identify the actions required in the years immediately ahead to develop a sustainable strategy for energy provision and use.

Growing concern over climate change has helped bring energy to the top of the environmental agenda. In December this year international negotiations will take place in Kyoto, Japan, to reduce emissions of greenhouse gases, particularly carbon dioxide from burning fossil fuels.

This study by the Royal Commission will compare the environmental consequences of different methods of providing energy. It will examine the scope for radical reductions in energy requirements.

The principal focus will be the UK and Europe. The global context will be considered in order to identify the constraints and opportunities likely to arise.

Rather than undertake new work, the intention is to draw to the fullest extent on analyses of particular aspects already carried out by other bodies, together with the Royal Commission's own work on energy use in transport.

As the first stage of the study the Commission Secretariat will assemble and collate existing material on some key topics. The Royal Commission is inviting interested organisations and individuals to draw relevant analyses and work in progress to its attention. It will also commission some studies by consultants.

The topics identified for initial study are:

- (a) overall scenarios for future energy demand and supply in the UK, in Europe and globally;
- (b) the environmental implications of such scenarios, especially in terms of pollution produced by the energy sector;
- (c) technological, economic and social assessment of the scope for reducing demand for energy, including the possibility of radical changes in technology or in design practices under approaches such as Factor Four and Factor Ten;
- (d) the potential contributions to energy supplies from various sources and the constraints on their development;

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- (e) environmental, economic and social assessment, on a life-cycle basis, of alternative technologies for energy supply;
- (f) how governments can best interact with energy markets to ensure the development of those markets reflects environmental costs and risks;
- (g) the effectiveness of present institutions in framing and delivering energy policies that are environmentally sustainable.

Early next year the Royal Commission will define specific issues for investigation, and will invite written and oral evidence on these. It intends to publish its report in the first half of 1999.

On 23 September 1998 the Commission issued a news release in the following terms:

ROYAL COMMISSION TO INVESTIGATE IMPLICATIONS OF PHASING OUT FOSSIL FUELS

The Royal Commission on Environmental Pollution announced today what will be the main theme of its study of future energy prospects. The focus will be on the implications of considerably reducing, by the middle of the next century, use of fossil fuels as an energy source in the UK, or even phasing them out completely.

The Royal Commission is concerned both about the need to limit carbon dioxide emissions from burning fossil fuels, in order to avoid dangerous modifications to the world's climate, and about other environmental impacts of energy systems. It believes there are strong pressures for radical changes in the way energy is obtained and used. Its aim is to elucidate and assess what such changes entail.

Evidence is being invited on 23 specific issues. These cover alternative sources of energy, improvements in energy efficiency, the implications of climate change, social issues and international considerations. Evidence should be submitted by the end of November to the Commission Secretariat at Steel House, 11 Tothill Street, London SW1H 9RE.

The Royal Commission plans to publish its report on Energy and the Environment before the end of 1999. For the first time in such a study, information about progress will be available on the Energy section of the Royal Commission's web site at:

<http://www.rcep.org.uk/energy.html>

The list of issues was as follows:

Energy sources

1. In the light of political, economic and social constraints, what key policies would be needed to force the pace of adoption of renewable sources of energy in the UK on the scale required to replace fossil fuels by the middle of the next century, and how could such policies be implemented?
2. Are there environmental impacts of renewable sources of energy which would be critical limiting factors?
3. Which renewable sources of energy are likely to offer the most scope in technical terms in the UK?
4. Is there a realistic prospect of technologies (for example for sequestration of carbon at source of emission) that would help make some continuing use of fossil fuels as an energy source acceptable?

5. What might conventional nuclear power contribute? To what extent will its contribution be dependent on:
 - innovations in technology?
 - establishing valid disposal strategies for wastes?
 - public attitudes?
6. Should fast breeder reactors or nuclear fusion be regarded as potentially viable energy technologies in the next century?

Improvements in energy efficiency

7. Can UK primary energy demand be stabilised by the middle of the next century? Can it be reduced over that timescale, and if so by how much?
8. What are the actual and potential drivers and barriers for reducing demand for energy? How are the drivers and barriers affected by the structure and regulation of the energy market? How could the drivers be enhanced and the barriers be reduced?
9. In comparison with other strategies, how attractive is reducing demand as a way of reducing the impact of energy on the environment?
10. What contribution can increased efficiency of generation and distribution make to reducing the environmental impact of energy?
11. What more needs to be done to integrate a concern for energy efficiency into professional training and practice in fields such as architecture, engineering and land-use planning?
12. How should considerations about energy efficiency enter into determinations of what represents the best practicable environmental option and into implementation of the EC Directive on Integrated Pollution Prevention and Control?
13. Where should lead responsibility lie for promoting energy efficiency, and are additional powers required?

Implications of climate change

14. What measures should be taken
 - in the UK
 - in the European Union
 - in other parts of the world

in order to adapt to environmental changes that are inevitable as a consequence of higher concentrations of greenhouse gases in the atmosphere?
15. Is the factor which effectively limits utilisation of fossil fuel reserves likely to be requirements to reduce emissions of greenhouse gases, or the availability or distribution of reserves, or the relationship between the cost of exploiting those reserves and the cost of competing energy sources? How different are the respective limits on fossil fuel use likely to be imposed by these three constraints?

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Social issues

16. How will different strategies to reduce the impact of energy on the environment affect different groups in society?
17. How can approaches be developed to reconcile reductions in demand for energy with greater equity in access to the services provided by energy?
18. What will be the health effects of different energy strategies?

International considerations

19. Are future trends in market prices likely to move the UK energy system in the desired direction, and if so how quickly? To the extent that interventions in markets will be required, how far does the UK have the ability to pursue its own energy policies?
20. Should the UK adopt policies to phase out use of fossil fuels in the absence of equivalent action by other countries?
21. How should the UK seek to influence the development of policies internationally to limit fossil fuel use? How can a sufficiently wide coalition be formed to obtain agreement on a global carbon tax?
22. Does research need to demonstrate specific national impacts of global climate change before the people in a given country will be prepared to support strong international action to counter it?
22. What scope is there for the UK to profit from exporting or licensing commercial technologies developed for clean energy supply?
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