

POLICY PROPOSAL

(Responses to specific points in 'Nuclear -Initial Scoping Note'
will be found below)

1. Overall considerations:

1.1 Continuity of supply: The inevitable uncertainty surrounding the cost-stability and continuity of supply of imported fossil fuels (including gas), make it imperative that government policy should be framed so as to ensure that changes in market conditions cannot seriously jeopardise the nation's longer term continuity of electricity supply.

1.2 The environment: At the same time, account must be taken of the major contribution that nuclear electricity generation makes to our ability to meet our environmental obligations.

1.3 Balanced supply: Therefore it is essential that the country has sufficient non-fossil fuelled generating capacity to ensure that it is not overly dependent on imports, to see it through any emergency situation that might arise.

It is also vital that we are prepared to replace, in some way, our current nuclear capacity as it comes out of service, and, in the longer term for the inevitable phasing-out of fossil fuels supplies as these finite resources eventually begin to become increasingly scarce.

All the indications are that 'renewables' *alone* cannot adequately meet these requirements, so the retention of a nuclear contribution remains essential. It will be to our considerable economic disadvantage if sufficient diverse technologies are not available domestically to meet our future need for a balanced portfolio of electricity generating capacity. Conversely, proven expertise in diverse technologies could give us economic advantages over and beyond the security of our electricity supplies.

2. The nuclear dilemma

2.1 Current economics: The economics of all of our current nuclear-based generation is governed by the constraints of underdeveloped technology. Even our most modern nuclear plant is based on 30-year old technology. This fact has been recognised, in part by successive governments that have continued to fund research into fusion technology.

2.2 Future economics: The development of more cost-effective and 'safer' technology by UK industry is inhibited by the uncertainty of government policy that has prevailed over many years, the excessive cost and delay associated with approval procedures and government sensitivity to public opinion and the violent tactics of professional protesters.

2.3 Public opinion: Genuine public opinion is also a key factor, but concern about nuclear power has however, unduly influenced by scaremongering on the part of these same

professional protesters. Over time, with appropriate action, it can be modified.

3. A possible solution

3.1 Clear Government policy: Government should establish a firm forward-looking policy under which licences would be granted, for a given amount of new/replacement nuclear generating capacity over a given period of years, to organisations that meet specified safety and environmental conditions and are prepared to use existing nuclear sites. This would encourage industry to invest in the development of more efficient and even safer nuclear technology, including waste disposal, and help reduce the significance of many of the present objections that are raised in the nuclear context

3.2 Research & Training: Support to ensure the continuity of nuclear energy research and training in Britain's universities and research establishments is a necessary and entirely legitimate area for government action, aimed, as it would be at achieving both the economic and environmental gains outlined above.

RESPONSE TO DOCUMENT NUCLEAR 1 v 1.0 (Numbering relates to the original document)

3. PROSPECTS

Magnox Stations There is little merit in trying to extend the working life of the Magnox stations but their sites should be reserved/used for future nuclear generation rather than being expensively de-contaminated and returned to green field conditions.

AGR Stations There may be some value in extending the life of individual AGR stations but this should not be seen as an alternative to new initiatives in nuclear generation and the use of their sites for replacement nuclear capacity.

Risks from closure The principle risk would be the resulting need for additional generating capacity which would be on a scale that is unlikely to be met, without massive subsidy and environmental impact, by 'renewables'. Therefore it is likely to lead to the building of more fossil fuel powered stations which, in turn, will carry environmental penalties and hasten the creation of a shortage in fossil fuel supplies and rising costs.

Life extensions Any government subsidy to extend the life of AGR generating plant can be justified in terms of the environmental benefits it would bring.

Reducing the cost of nuclear generated electricity Technology that is more advanced than that in current use will bring cost savings. Life extensions will involve a relatively low level of capital expenditure than new building of either conventional or nuclear capacity.

Lead times It is essential that licensing procedures are harmonised across Europe or, preferably, globally to save repeatedly covering the same ground at public enquiries and to ensure that technology developed for one country can be readily used in others.

4. INTERNATIONAL PERSPECTIVE

To maintain and enhance the 'knowledge-based' aspect of British industry, as well as manufacturing capacity, it is important for UK business to have a clearly defined home market from which to develop international trade.

5. ENVIRONMENTAL IMPACTS

We should not lose the environmental benefits that we already have from our nuclear generating capacity. Global environmental standards are likely to be raised over time and additional nuclear capacity will help us meet this challenge, as well as freeing fossil resources to be used for purposes other than fuel from which they can be recycled.

Current nuclear technology, used at its present capacity would increase the volume of HILW by only 10% over 40 years. New technology (PBMLR, for example) would reduce this and, over time, ways can surely be developed for reducing the radiation characteristics of waste. Encasement and burial should be stopped while methods for reducing radioactivity are explored and new technologies developed.

Generators should not be expected to pay, in the short term, for the long-term costs of waste disposal. This is no more logical than it would have been for the National Coal Board to bear full liability for the Aberfan disaster or its successors for restoring sites (including underground workings) to greenfield state.

No liability should be accepted in relation to local communities unless actual damage can be proved and its cost calculated.

Safety risks associated with actual nuclear power generation, as opposed to weapons programmes, are proven by our 40 years of experience to be lower than the industrial average. In defining its policies for future nuclear electricity generating capacity, government should make this fact clear to the public.

Future developments will reduce these risks still further.

6. SECURITY OF SUPPLY

Nuclear offers the most secure basis for future power generation requirements.

Any economic case for reprocessing rests on the availability of generating capacity that can utilise the resulting material. MOX fuel is a possible source of future generating capacity but it is not the only one; its current availability should not prejudice the development of alternative approaches.

Safety shut downs have not been a major problem in recent years and this position is likely to improve.

7. CAPABILITY

There are three fundamental policy reasons for retaining UK expertise and capability to build new nuclear plant:

- ensuring the long term security of our electricity supply
- meeting our present and future environmental obligations
- the economic benefits of international trade

It is clearly more reliable for safety regulators to have necessary skills available in the UK

The grounds for maintaining nuclear generating are the same as for other 'renewable' sources of electricity - minimising impact on the environment and security of supply. Nuclear, however, appears to have considerable better cost-efficiency prospects than wind-or wave-power.

It would be to the long-term economic advantage of the UK to continue with nuclear generation, especially if other OECD countries were not doing so.

Short of ordering new nuclear stations, the Government should, as suggested earlier, establish and declare a policy for licensing new nuclear build of given capacity over a given period of time, subject to specific safety/environmental conditions.

Since nuclear capacity cannot easily be turned on and off, and because of its particular cost efficiency for continuous generation, some mechanism should be established for ensuring that nuclear can play a more fundamental role in base load provision than fossil fuelled sources.

8. PUBLIC ATTITUDES

These can be influenced to be more understanding and tolerant of the use of nuclear technology for electricity generation, over time. However, the inevitable NIMBY inclination within sections of any population group and the impact of vociferous outside pressure groups militate against reliance on local community decision taking. One solution to local attitudes would be to use and re-use existing sites - only Sellafield (which is not primarily a generating site) and Sizewell are subject to significant local opposition.

In its policy statements, government should consistently make reference to the exceptionally good safety record of Britain's nuclear electricity generating plant over the past 40 years.

9. RESEARCH & DEVELOPMENT

There are good prospects for more effective reactor designs in the context of a clearer government policy.

Government support to ensure the continuity of nuclear energy research and training in our universities is needed to achieve both economic and environmental gains.

In view of the long term positive contribution that nuclear can make to the security of global electricity supplies and to the environment, it is entirely sensible to encourage international collaboration at the level of individual institutes and enterprises.

10. POLICY RESPONSES

A government stance between the 'neutral' and 'strong support' options that are set out in the note would be most appropriate. A commitment to licence a given nuclear generating capacity would encourage existing enterprises and institutions to invest and would require the lowest level of direct support from government.