

The UK Energy Review and Nuclear Power

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The danger with the DTI's Energy Review is that it will give the wrong answers to some questions that do not need answering, and fail to address those that do need answers.

Nuclear is a case in point. The prime question here is whether nuclear has a role to play in reducing carbon emissions. The Prime Minister seems to have decided that the answer is yes. And he must be right. Faced with a global warming crisis it would be extraordinary folly to rule out one possible avenue. But the critics, not excluding some respected bodies and individuals, are effectively saying that a choice has to be made by the government between nuclear and renewables, and nuclear should be ruled out. The argument runs that renewables are capable of solving the problem; that no nuclear capacity will be available until 2016 at the earliest, and so it is not worth embarking on a new nuclear programme; and that we cannot manage the pursuit of both renewables and nuclear at the same time – a new nuclear programme would crowd out renewables.

It may be that renewables *can* solve all our problems but it would be a brave person who decided to rely on this. The global warming problem is likely to intensify with time and any contribution that nuclear can make to mitigating the problem, whether before or after 2016, should be seized. And the idea that we cannot manage to pursue both nuclear and renewables is surely a counsel of despair, based on the experience of twenty or thirty years ago when decisions about investment in generation plant were taken centrally and paid for by the Treasury. These arguments smack of the old anti-nuclear ideology and we must hope that they will be disregarded and that the Review will focus on some rather more difficult issues that have to be considered if the nuclear option is to be properly assessed.

The first such issue is what government measures are needed to facilitate a resumption of nuclear build. Is it sufficient to set in place the right investment climate and leave it to industry? Indeed what is the right investment climate? Apart from making it clear that the government is not opposed to new nuclear plant, should it introduce a nuclear obligation putting it on a par with renewables? Or should it rely on the effect of the emission permit regime? In either case how can it give the industry sufficient confidence about the future regime to undertake investment? If with such measures industry does not opt to build new nuclear stations what if anything should be contemplated to get one going? Government subsidies? A government controlled building programme? Such a step as this would begin to justify the fears of the anti nukes.

Then there is the question of reactor type. Here it is worth reflecting a bit on the past history of nuclear in the UK and elsewhere. It will be recalled that the government

decided in the 1960s to favour gas-cooled technology – but then left it to the industry to decide on design. We got four different designs, none of which was built to time or cost. The French meanwhile settled on the PWR and, with a single manufacturer/contractor, built a series of near identical plants. The steady and predictable programme and the replication enabled them to drive down costs.

You might say that this is just typical French centralist behaviour, depending on a single electricity supplier (EdF) and a single manufacturer (Framatome), and that this has no relevance to today's situation in the UK. But the message from this story is actually very potent. Without the certainty of replication of a tried product, a nuclear programme in this country will simply not happen.

So how can we apply this lesson to the UK situation, where the generating sector is fragmented, and there is no indigenous manufacturing capability (Westinghouse having been sold to the Japanese)? It may not in fact be that difficult. The UK generators are now international companies, which can draw on their overseas experience and thus secure replication on a worldwide basis, rather than within the UK market. Similarly, there are international power station building consortia. So provided we do not see the need for an essentially British technology and building capability the world market may give us what we need.

This points to a possible scenario in which at most two reactor designs are available to UK generators, both being adopted and built in other parts of the world, and giving an assurance of reliability, ease of construction and cost reduction. It could be left to the advocates of new nuclear build in the UK to choose between these two. Or possibly government and the Nuclear Installations Inspectorate (NII) might seek to persuade the UK industry to settle on a single design, at least by relaxing any competition constraints on joint ordering. A possible obstacle to this vision of internationalisation and replication is the fact that each country sets its own safety requirements. So the major customers for a particular reactor design need to harmonise their safety requirements either multilaterally, or through the EU.

This discussion suggests that the essential outcomes of the Government Review should be

- an acceptance by the government that nuclear has a role to play in meeting our future energy needs (this looks increasingly likely judging by statements by the Prime Minister and the Chancellor);
- a description of the regulatory or statutory measures that it proposes to adopt to facilitate this. This will need to include measures designed to give investors confidence in the long-term predictability of the planned regime;

- a statement that the government will not intervene by subsidising nuclear power stations or embarking on a government controlled and financed programme if the measures referred to above prove inadequate. (This is a difficult one; it needs to be said in order to disarm the renewables lobby and to ensure that the industry does not overstate the obstacles to a market solution in the hopes of obtaining subsidies; however, will it be believed if the government is saying that nuclear is an essential contribution to the solution?)
- a statement about reactor choice and the steps the

government expects the NII to take to minimise delay in the licensing process, and possibly co-ordinating clearances with safety authorities in other major countries.

It is in these last three areas that the debate needs to concentrate, and unless the government clearly sets out the options and its preferences, if not intentions, in these areas, the argument following publication of the Review is likely to degenerate into a squabble between committed anti- and pro- nuclear factions.

The Geopolitical Causes of High Oil Prices

Walid Khadduri considers the instability of Iraq, its causes and challenges

Whatever the purpose of the US occupation of Iraq in March 2003, the results so far have been disappointing. In the first half of 2006, over 6000 people were murdered in Baghdad alone – mostly for sectarian reasons; around 20,000 people have been kidnapped; and approximately 180,000 people were displaced from their homes as a result of ethnic cleansing.

A Series of Mistakes

It was always assumed that the removal of the Saddam regime would be difficult and full of retributions. However, what has come as a surprise to many, including some of the most senior members of the Iraqi government, is the number of mistakes committed by the occupation authorities in the past three years. Their frequency and seriousness have left few viable and peaceful options in the period ahead.

There is the familiar list of mistakes

It includes, among other things, a military doctrine that has grossly underestimated the required number of soldiers to carry out nation-

building following the war. Instead of the approximately 450,000 members of the armed forces and security personnel under Saddam, the United States has deployed around 130,000 men and women. Their task is not only to protect the nation's borders, but also to patrol the streets and maintain law and order in rebellious Iraqi cities and towns.

There is also the disbanding of the Iraqi armed forces, the one and only state institution that could have maintained law and order following the collapse of the totalitarian regime. The decision to dissolve the army and police created a big vacuum that the allied forces could not have possibly filled. This has resulted in widespread theft and the destruction of private property, the wide opening of the borders, as well as some 2–3 million people being left without any income.

Finally, there is the indiscriminate de-ba'athification process that has dismissed thousands of civil servants and teachers from their jobs, and left state institutions with few experienced personnel.

These three decisions resulted in the absence of security, the deterioration of state institutions, and the creation of a fertile ground for terrorism and sectarianism.

Questions Unanswered

There are, moreover, scores of questions that remain unanswered.

How could a superpower, with such access to information and analysis, not take into consideration the debilitated conditions of Iraqi society after three major wars and comprehensive international sanctions, and plan economic recovery accordingly?

“The big problem, of course, lies within Iraqi society itself”

Why were the priorities of Iraqis for security and the provision of basic daily needs neglected in favour of grandiose capital-intensive projects? It has not gone unnoticed that while multi-billion dollar projects were awarded to major US firms, the people lacked electricity, gasoline and jobs. Many of these projects have not been implemented for budgetary and security reasons, while the basic daily needs are still lacking.

Why was there such poor planning and execution to bring the country back to normalcy? The fix-it as you go approach, the rapid change of the first occupation authority after barely a month in power, and the failure to re-establish functional and accountable state and local authorities have driven the country to near civil war.

Why the War?

However, a more fundamental