

## Electricity Supply

**Lord Tombs** rose to call attention to the problems in the electricity supply industry created by the absence of a strategic decision mechanism; and to move for Papers.

The noble **Lord** said: My **Lords**, this is the third debate in which I have sought to draw attention to the absence of a strategic decision mechanism in the electricity supply industry, the earlier ones being in January 2003 and January 2004. I congratulate those noble **Lords** whose interest in the topic has induced them to attend this year's instalment in a largely unrewarding saga. In addition I welcome the attendance of the Minister, the noble **Lord, Lord** Triesman, for whom it is a new experience. I say at the outset that I hope that the arguments which I and others seek to advance will not, as hitherto, be dismissed by the mantra that market forces will solve long-term problems so that no strategic decisions are called for.

Although a number of noble **Lords** present know of my interest in this matter, it may be desirable to set out very briefly the reasons for it. I spent the major part of my engineering career in the electricity supply industry in Scotland and then in England and Wales, becoming chairman of each organisation, and resigning in 1980 when the government of the day insisted on an organisation which I considered wrong and which subsequently became the organisation adopted for privatisation. It was a highly fragmented one in which strategic thinking has no place.

An important part of the strategy of the electricity supply industry when nationalised was security of supply. That statutory requirement was based on recognition of the essential role of the industry in maintaining the economic life of the country. To some, security of supply is just a matter of having sufficient generating plant to ensure reliable supplies in the next few years—an adequate plant margin. That is, of course, an important requirement which relies today upon indicative figures collected by National Grid on behalf of the regulator, Ofsted. I use the word "indicative" because the information supplied about future commissioning and decommissioning intentions is not binding in any contractual sense. It follows that the information given is only indicative of present intent and that deficiency has

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been claimed by government to be remediable by the operation of market forces. I would like to return to the reasons for the inadequacy of that argument later.

However, even an adequate plant margin is not sufficient to secure even moderate security of supply in circumstances where important supplies of primary fuel may be interrupted for considerable periods. In its nationalised days, the industry sought to provide against such conditions by ensuring that adequate stocks of fuels were available and that there was sufficient diversity of types of generating plant to allow some of the shortfall to be made up from alternative fuel sources. So it was that the industry and the nation managed to survive strikes of the coal industry, then its principal fuel supplier, in the 1970s and 1980s.

Today, little such flexibility exists. Virtually all new generating plant installed since privatisation has been gas-fired and we are becoming steadily more reliant on gas imported from overseas, with very limited storage in this country. The alternative fuels are becoming steadily less able to substitute for a prolonged interruption in those imports, despite the vulnerability of pipelines to accidents or to terrorist attack. The security of our electricity supplies is consequently vulnerable in a quite major way. The Government's answer to this problem appears to be that commercial contracts and diversity of potential gas supplies will ensure that the risk of such interruptions can be ignored.

But the future is full of surprises, some of them inevitably unpleasant, and the National Grid Winter Outlook Report 2004–05 contains some of those. The report says:

"Decline of UK CS [Continental Shelf] gas supplies is occurring faster than previously forecast. A consolidation of industry data suggests a beach gas availability of 346 mcm/d for a sustained period over the coming winter".

This represents a reduction in gas supplies of about 10 per cent compared with estimates of only six months earlier. The statement goes on to say that some offshore operators consider those revised figures to be optimistic.

The report then considers extreme weather conditions of a 1 in 50 likelihood and concludes that:

"under such conditions the market will need to deliver a response of around 2.4 bcm over the winter period to maintain a balance. This would be equivalent to the cessation of gas consumption for approximately 25% of all non-domestic demand"—

25 per cent—

"over a 40 day period. This would have to be provided through a combination of interruption contracts and other demand-side arrangements developed between suppliers and customers".

The figures I have quoted are for extreme weather conditions but the suddenness of the foreseen changes in supply availability, and the draconian nature of the necessary response, are, to put it mildly, of great concern. This reliance on the market to redress a prolonged failure in gas supplies would involve major dislocation, the consequences of which are not spelled out. I hope that somewhere, perhaps even in DTI, there is a serious plan to deal with such contingencies in what is clearly an increasingly uncertain situation.

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Reliance on the gas supply market to insulate us from such uncertainties is a hazardous course. Some of our projected suppliers of gas will be far away and in variably stable political environments. In such circumstances, the operation of free market forces to protect our interests cannot be reliably assumed. We should bear in mind that the maxim "charity begins at home" is as current overseas as it is here—perhaps more so.

Of course, some reduction in gas demand will be produced from the very highly subsidised investment in wind power, interruptible though that is. Perhaps I can remind noble **Lords** of the estimate of the size of that subsidy until the year 2020 which was given by the noble **Lord, Lord Sainsbury**, on 5 May 2004 as £30 billion. I repeat that number: £30 billion. I will leave noble **Lords** to contemplate the wisdom of that enormous investment of electricity consumers' money—not taxpayers' money, let it be noted, despite the fact that the expenditure is in furtherance of a national government policy. For my part, I do not believe that such expenditure would have survived a rigorous strategic assessment by a coherent industry—or perhaps even a coherent government.

But, that question apart, we are clearly becoming steadily more dependent on supplies of imported gas and I hope that I have been able to show why I consider that course to be a highly dangerous one. For it must be remembered that the time requirements for any remedial actions are very long—not a matter of weeks or months but of several, perhaps many, years.

So much for the likely effectiveness of market forces in remedying serious fuel supply shortages. Yet the Government believe that market forces will solve these problems and that therefore no strategic planning is needed for future energy supplies.

A similar situation arises when we turn to the question, which I mentioned earlier, of plant margin. The privatised industry inherited a substantial legacy of coal and nuclear plant and has since been active, with government agreement, in sacrificing that legacy in favour of gas-fired generation which has the advantages of low capital cost, short construction periods and short payback periods for investors. For a time, the low cost of gas underpinned that commitment—it certainly cannot be described as a strategy. But the coal-fired plants are ageing and many have been permanently closed in the interest of short-term savings, leaving the nation, as I have shown, open to serious damage.

In fairness, we should recognise that an important plank of what is sometimes optimistically described as an "energy policy" is the reduction of emissions of greenhouse gases which contribute to climate change and the introduction of gas-fired plant furthered that end. But such a desirable objective could have been achieved also by building modern coal-fired plant, although at a higher capital cost. This was not, of course, acceptable to the market forces on which the Government place such reliance and so was not considered. That it would have preserved some real diversity in the supply of primary fuels carried no

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weight because no strategy existed. The attraction of financial projects which are not short-term or subsidised has been dampened by the substantial losses suffered by those financial institutions backing them as a direct result of other government actions in the electricity market. I speak, of course, of those liquidations that followed the introduction of NETA.

Meantime, our nuclear contribution, which provides no greenhouse gas contribution to climate change at all, has been subject to constant damaging actions by the Government. It is subject to the climate change levy, although it does not contribute to climate change, and pays disproportionately high business rates in comparison with other forms of electricity generation. However, those burdens were eclipsed when the Government introduced, through

Ofgem, new trading arrangements, to which I have referred, known as NETA, which suddenly and seriously damaged the trading arrangements of several large generators, most notably British Energy.

Faced with the inevitable crisis at British Energy, the Government then proceeded to compound the damage by a financial reconstruction that has left our nuclear generator a lame duck. This is not the place to consider how the Government produced such an undesirable situation; suffice it to say that again an effective strategy would have placed the problem and its solution in a coherent framework of objectives and avoided the panic reaction which occurred. Instead, we are left with a financially weak nuclear operator and little likelihood of expropriated investors wishing to repeat the experience. Let me say here that we should not be influenced by the interest shown in the shares on re-listing earlier this week. The volume of share trading, though large on a daily basis, was pretty small in relation to the needs of British Energy now and in the future.

The era of cheap gas is plainly over and serious thought must be given to future energy supplies. Present energy policy vaguely sets out general aims that are in random competition. I suggest that we should recognise the primacy of security of supply and only then the reduction of CO<sub>2</sub> emissions. The other laudable aims could follow.

Renewable energy has an important role in reducing CO<sub>2</sub> emissions but a very limited one in security of supply. Modern coal plant and nuclear plant can do both and must be essential components of our future energy plans.

That sounds simple enough, but the present fixation with renewable energy has frozen out rational consideration of the necessary actions. The £30 billion being spent on wind power could have made a large contribution to both of the objectives which I have suggested should have primacy—security of supply and reduction of CO<sub>2</sub> emissions. That they have not done so results from the absence of a strategic approach, for which the fragmented nature of the

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industry is largely responsible. Its present constitution is of competing companies of varying financial and technical strengths, with no duty or incentive to take a long-term view of the industry's obligations.

As a result, that role has been neglected and that neglect has left the field open to the DTI, Defra and Ofgem to fill by a mixture of aspirations combined with a belief that the market will solve all problems, be they short or long-term.

Recovery from this situation will not be an easy matter. The present regulatory structure favours the construction of heavily subsidised wind power and of low capital cost gas turbines. To move from this will require regulatory adjustments to address long-term problems as well as short-term ones. Such a change cannot take place without a clear strategic framework. The industry itself is too fragmented to produce one, and the Government have shown themselves unable to do so.

I should like to return to my suggestion in our first debate in 2003—that we should re-examine the role of the **Electricity** Commissioners who operated in the 1920s and 1930s to regulate an even more fragmented industry than we have today. The commissioners expired on nationalisation, but some such body will be necessary if the problems I have outlined are to be addressed.

Past experience does not give cause for hope. That suggestion which I made in 2003 was met by a suggestion by the Minister replying to the debate that I was looking for a job! I believe that I managed to disabuse him of that attempt to trivialise a serious problem.

The problem has not gone away, nor will it do so. However, in the short space of two years the scale of the problem has made its evasion much more difficult.

I know how difficult it is for the Minister replying to do so effectively, given the nature of a balloted debate and the consequent difficulty of anticipating the arguments that will be advanced. However, I would urge him at least to recognise the very real concerns that I and others share and to undertake to take them away for serious consideration. My **Lords**, I beg to move for Papers.

**Lord Tomlinson:** My **Lords**, I am sure that I speak on behalf of all noble **Lords** in expressing my gratitude to the noble **Lord, Lord Tombs**, not only for the persistence with which he has addressed this problem over the years but also for initiating this debate today.

I am sure that when he replies to the debate my noble friend **Lord Triesman** will be inclined to protest about the alleged,  
"absence of a strategic decision mechanism"

in the Motion. If that is the case, I should tell him that if there is such a strategic decision mechanism, it remains a closely guarded secret. I have looked for it but have not been able to find it. If it exists, perhaps in his reply he will share with us its precise nature.

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I think that we all start from the same position—that it is a fundamental responsibility of government to ensure the adequacy not only of current but also of future energy supplies. We have seen too many examples of the catastrophic consequences that flow from even temporary failure in electricity supplies to have any degree of complacency about this. Guaranteed electricity generation has to be sufficient not only to guarantee our existing needs and demands but also the future needs and demands that will come from the prospect of economic growth. That prospect is constantly put forward by all political parties as part of their economic policy to sustain the ever improving standard of living that they are all inclined to promise to their electorate.

Given those circumstances, the omens are not good. The noble **Lord, Lord Tombs**, referred to our present level of dependence on gas. I believe that about a third of our present electricity needs are dependent on gas. However, it is clear that Europe's indigenous gas supplies, following the "dash for gas", are near exhaustion. Europe is therefore becoming increasingly heavily dependent on imports of gas from regions that are actually, or potentially, extremely volatile. Four of the most important regions are Russia, the central Asian republics, the Middle East and Libya. If we are currently dependent on gas for a third of our electricity, it is not responsible to view gas as being potentially available to fill a gap in our needs.

Against that background we have all focused more clearly on the issue of climate change, which has been an increasing force on the political agenda. Sir David King, the Chief Scientific Adviser to the Government, warned that global warming was a greater world threat than international terrorism. The UK is sufficiently persuaded of that threat to promise a reduction in carbon emissions of 60 per cent by the year 2050. It is impossible to chart any course based on current policies and promise that 60 per cent reduction in carbon emissions without attaining the target for generation from renewables of 20 per cent by 2020. I have doubts whether that is sufficient. But much as I wish to see that target achieved, it is a target that daily looks increasingly incredible. It requires 600 per cent improvement in the quantity of generation from renewable sources over a period of a mere 15 years, three times longer than the noble **Lord, Lord Tombs**, has been regularly reminding us of the increasing scale of the problem. I wish the target well. I am not against the efforts in relation to renewables, but my scepticism remains. I do not believe that a wish and a prayer are really an adequate substitute for the strategic decision mechanism.

Over the period 2020 to 2025, Britain's nuclear power stations—the non-carbon emission area of electricity generation, the non-global warming nuclear power stations—will reach the end of their existing useful life and will close. That will happen automatically in the absence of decisions being made. The effect of no decision is that those years 2020 to 2025 will inevitably see the end of our nuclear industry. As this happens, we will see nearly a quarter of our electricity supply needing to be generated by an alternative. But it will be 25 per cent of clean-generated electricity that will have to be replaced

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by either renewables about which I am already sceptical, fossil fuels which will directly conflict with our obligation in relation to carbon emissions, or by new nuclear provision. If there is a magic alternative, I hope that somebody can show it to me because if it is that self-evident, we ought to be able to expose it to examination in the course of a debate like this.

I believe that we have a serious conundrum. About a third of our demand is coal-fired and producing carbon emissions. About a third of our electricity is gas-fuelled in terms of generation, but with the gas supplies running out and the alternative supplies being potentially politically volatile, the rest has to be the combination of nuclear, renewables and oil or others which are such a small part of it. The renewables are clean, but their delivery cannot be guaranteed. The nuclear was seen in the White Paper 2002 as an option, but only if the skill base of the nuclear industry was maintained.

Can my noble friend honestly stand there with his hand on his heart and say that the statement in the White Paper 2002 of maintaining the skill base of the nuclear industry has been achieved? I am available to be convinced, but at

this moment I remain to be convinced. But even if it is so maintained, nothing is happening on the Royal Society demand for a new generation of nuclear power stations.

When my noble friend replies to the debate I would like him to imagine for a moment, but not to concede, the possibility that we do not get 20 per cent generated by renewables and we decide that the policy has the potential for failure. I would like my noble friend to address the question of what is the lead time for a new nuclear power station, from the day at which we decide that either our renewable energy generation is inadequate or we are failing in our goals for reduced carbon emission? How long do we need to create an alternative clean generation?

I said earlier that a hope and a prayer is not a strategic decision mechanism. As regards hope, I am always an optimist. I am even an optimist who could be persuaded about the efficacy of prayer, but I would not be prepared to plan the future economic wellbeing of our industry and the future of the economy of UK plc on such a policy.

We are leaving strategic decision-making too late. If the decisions cannot be made today or this month, or next month, then I say in all consciousness of what I am saying to my noble friend that they must be made very soon after 5 May or whenever the date of the next general election.

There is an excellent, recently published book on the Spanish Armada. When I first saw its title I thought it was a new title for government energy policy on electricity generation. I hope that we never have to have a policy entitled "Confident Hope of a Miracle". I hope that I am not tempted for much longer to look enviously at that title because for me it very much describes where we are today. It is one of the issues which transcends party politics because the very security of our society is based on the guarantee of a continuous supply of the energy on which that society depends both economically and socially.

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**6.7 p.m.**

**Lord Jenkin of Roding:** My **Lords**, I certainly share with the noble **Lord**, Tomlinson, our gratitude to the noble **Lord**, **Lord Tombs**, for once again bringing this very important subject to the attention of the House. I say in relation to the speech which we have just heard that it really is a very powerful indictment of the policy which the Government are seeking to put forward. The noble **Lord**, **Lord** Tomlinson, suggested that he might be persuaded—I believe that we understand the language that he will require a very great deal to be persuaded—that they are on the right course.

In the middle of last year there was a television programme which attracted a lot of attention. It was called "If the lights go out". Although it was fictional, it was not fanciful. I recently met the producer of the programme, Dai Richards, at a conference at Church House. He said that although there had been a huge audience for the programme, he had been immensely disappointed that there had been no political consequences. That is a problem for this House because any of my noble friends and noble **Lords** opposite who took part in the debates on the Energy Bill after that programme will know that amendment after amendment was debated—the programme provided powerful ammunition—and we succeeded in putting into the Bill a number of provisions which raised the security of energy supply to the top of the scale.

I find it disturbing that the television company knew nothing about that at all. Perhaps the House authorities might be persuaded to look at how we can get our message more firmly across to the public. While on the issue of media awareness, perhaps I may refer briefly to the exchanges at Question Time yesterday. When I asked the noble **Lord**, Triesman,

"what is being done to draw the attention of the media"—[*Official Report*, 18/1/05; col. 647.]

to the Government's response to the Select Committee report on renewables, at col. 648 he said,

"I give the straightforward undertaking that I will ensure that there is proper discussion regarding how to make sure that it is widely available and discussed in the media".

In the course of this debate, can he tell us what he has been able to do about that?

I turn briefly to one of the Select Committee's main criticisms in the context of the security of supply, that no one seems to be in overall charge of security. This follows directly on what the noble **Lord**, **Lord Tombs**, has put before the House. Page 3 of the Government's response states:

"We do not accept the Committee's assertion that there is no one at the executive level with responsibility for ensuring that there is continuity of supply. Both the Secretary of State for Trade and Industry and Ofgem have responsibility for the long-term security of supply".

Well may the noble **Lord, Lord Tombs**, smile, but that is what they said.

"Ofgem has important statutory duties relating to security of supply, which inform everything it does; the Secretary of State has ultimate responsibility for energy policy".

I want to draw attention to three points that arise out of that remarkable paragraph. First, any responsibility that rests on Ofgem for the long-term

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security of supply stems from amendments that we carried in this House in 2000 on the Utilities Bill, five years ago. With support from all sides of the House, we carried the relevant amendments with a majority of two, against very fierce government opposition. I am delighted that they should now be prepared to boast that Ofgem has responsibility. Perhaps the noble **Lord, Lord Triesman**, may be prepared to concede that we were right and that the Government were wrong.

Secondly, the Secretary of State may have responsibility for energy policy, but does that put her in charge of, "ensuring that there is continuity of supply"?

I do not believe that is the same thing at all. That is what the Select Committee was looking for. Does policy include security? Perhaps we could have a very clear answer to that.

The third point concerns the long term. Central to the case made by the noble **Lord, Lord Tombs**, is the fact that there is no strategic mechanism for the long term. I refer briefly to the Ofgem briefing for this debate which appeared in my letterbox this morning. Under the heading,

"Will the market ensure future security of supply?"

there are several paragraphs, but most of them look forward no more than three years: the three-year forward price mechanism and the three to four-year time for building a new gas-fired station. That is all short term. There is nothing there for the long term at all.

As has already been pointed out, with the decommissioning of the existing nuclear reactors in the next 15 to 20 years and with the closure of the polluting coal-fired power stations under the EU restrictions, it is inconceivable—I agree entirely with the noble **Lord, Lord Tomlinson**—that renewables or energy saving can possibly fill the gap. We will need major new generating capacity and such projects may well take 10 to 15 years to come to fruition. It is never too soon to start.

There is a growing awareness in the country that existing policies will simply not lead to the market making long-term investments and that changes are becoming essential. If Ministers need any further evidence to convince them of that, I suggest that they ask their officials to obtain for them the paper, *Will the New Electricity Trading Arrangements Ensure Generation Adequacy?*, by Miles Bidwell and Alex Henney, published in the *Electricity Journal* last year. It is a complex argument, but to my mind it is irrefutable.

Before I turn to my final point, I want to raise one matter on which the Minister may be able to give me a response. When we debated the way in which the renewables obligation works, as we did during the passage of the Energy Bill, we made several points. The Minister was quite right to claim in a recent response that the RO system for encouraging renewable resources has general support across the political spectrum. But, as has been pointed out, wind energy is very much more

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expensive than energy produced from gas and offshore wind energy is more expensive still. Therefore, it can attract investment only by being substantially subsidised.

When, during the course of the Energy Bill, we debated the need for subsidies to encourage the provision of new transmission lines to remote wind farms, I argued that, while the Government were perfectly entitled to provide that support for transmission lines, should not the subsidy that is being provided appear as a line on consumers' energy bills so that they know how much they are paying for renewable energy?

The RO is a mechanism for transferring the burden of subsidy from the Government to consumers. I believe that consumers are entitled to know how much they are paying for that. At the moment there is nothing that tells them the cost. I believe that the Minister should now be able to give us an assurance that the Government will consider the matter again.

I turn now to the nuclear option. Those who have heard me speak in these debates before know my view perfectly well and I do not need to elaborate it. Suffice it to say, I believe that this country has now reached the stage when the question is not whether we shall need nuclear power, but when and by whom will it be provided? I want to talk about that in the context of British Energy, which has been mentioned by noble **Lords**.

The Minister will know that in Questions and in correspondence I have expressed serious concern about the very harsh treatment meted out to British Energy. Due to the collapse of wholesale energy prices under the influence of NETA—the system for establishing prices—British Energy found itself in serious financial difficulties. Of course, I take the point that as a major generator it could not be allowed to collapse. On another occasion I said that the Government were, therefore, right to intervene. I also accept the point made very bluntly by the noble **Lord, Lord Sainsbury**, on 2 November,

"when you run out of cash you are not in a position to demand whatever terms you want".—[*Official Report*, 2/11/04; col. 137.]

The Government have driven that argument to its ultimate extent. One example is the forced sales, at the bottom of the market, of British Energy's American and Canadian assets—Bruce Power and AmerGen. They were gravely misconceived and have caused very serious damage to the long-term prospects of British Energy. What do we see now? Bruce Power's plants have been brought back on stream and are making substantial profits, but of course for the benefit of the purchasers who bought the shares at a discount and not for the benefit of British Energy.

Turning to the requirements that were imposed by the European Union on state aid, one can see the real damage to British Energy's prospects. But British Energy is now back in profit. With the recovery of prices, the company is making a good profit.

The Commission decision is a substantial document which runs to 90 pages. I do not suggest that noble **Lords** should read it. Apart from anything, it is marked "EU restricted", so I do not feel free to quote

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from it. However, I shall quote the DTI's press release, which states that the Commission has imposed on British Energy the following measures:

"no nuclear or fossil-fuelled capacity expansion (above British Energy's current capacity) by the company in the European Economic Area for six years, and no hydro-electric capacity expansion".

Does that preclude British Energy from fulfilling its plans to extend the lives of its power stations? Does it preclude British Energy from making any plans to invest in new nuclear build? It is the company with the sites and the expertise and it could well be in the market for doing that.

I hope that the Minister will be able to give the House very reassuring answers. If we do not have new nuclear build from British Energy, from where will it come? I share the grave misgivings expressed by the noble **Lords, Lord Tombs** and **Lord Tomlinson**. I believe that we are heading towards disaster.

**Lord Ezra:** My Lords, as we know, this is the third annual debate initiated by the noble Lord, Lord Tombs, on the need for a strategy for electricity. The noble **Lord** is building up a small band of devoted followers who have reappeared on each of these three occasions. I very much hope that he will persist with this annual event, but the trouble so far is that these debates have inevitably tended to be rather repetitive, because very little has changed. Let us hope that in years four, five and six when he introduces further annual debates we will have a more positive view before us.

It is certain that there are continuing doubts as to how the prospective electricity-generating gap is to be filled in the years ahead. In the period up to 2020, as the noble **Lord, Lord Tomlinson**, has pointed out, there will be a progressive reduction in coal-fired and nuclear capacity, which at present represents about 60 per cent of the total capacity, but by then could well be about half. The question is how that other half is to be filled. The only new generated capacity so far committed is a limited amount of wind power, as we know, which at present is contributing about 3 per cent of total electricity generation. The aim is 10 per cent by 2010, but grave doubts exist about whether that will be achieved. Certainly, there are more doubts about whether the further targets will be achieved. The important issue is that no new generating capacity of any other sort has been committed at present,

although a number of consents have been granted that will expire later this year. If they are not taken up by, I believe, October, renegotiation for consents will have to be embarked on. This has been revealed in the latest report of the Joint Energy Security of Supply Working Group.

It is not surprising that investors in new generating capacity are holding back, for there is great uncertainty hanging over the market. In recent years Ofgem, the industry regulator, drove wholesale prices down by some 40 per cent of their previous level, to which the noble **Lord, Lord Jenkin**, referred. More recently, although electricity prices have moved up again, gas prices have

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moved up even faster, and as this is the main input fuel for non-renewable electricity generation it has created a further element of uncertainty.

During the next two years, while new interconnectors and terminals are put in place, gas prices are bound to go up further and are already showing signs of doing so. After that, as gas imports into the UK will rise rapidly due to the depletion of North Sea reserves, which are already depleting faster than expected, as the noble **Lord, Lord Tombs**, pointed out, a continuing upward pressure on European gas prices can be anticipated. This leaves out of account the risk of supplies from distant sources and possible pipeline interruptions, to which the noble **Lord, Lord Tombs**, also referred. There is grave uncertainty on the gas price and supply front.

In the light of these shorter and longer-term uncertainties, it is by no means clear how potential investors in new power stations would react. This bluntly raises the issue put to us by the noble Lord, Lord Tombs, in this series of debates. What is so far lacking in the broad energy framework is a strategy for electricity. It is difficult to find such a strategy emerging out of either the White Paper or the Energy Act, and yet security of electricity supplies is far and away the most important factor in the whole range of energy considerations.

As things stand today, we can be reasonably sure that demand for electricity will at least be maintained, and could even go up by a small percentage each year. It is unlikely, in spite of all efforts being made to curb consumption, that the demand for electricity, with new gadgets coming on to the market all the time, will decline. Against that, there is much uncertainty about how this fairly steady and possibly rising demand is likely to be met. We have on the one hand a fairly firm demand picture, and on the other an uncertain supply picture.

An essential element in the strategy that needs to be put in place to deal with this situation is the maintenance of a reserve capacity, to which the noble Lord, Lord Tombs, referred. There is no such provision in present arrangements. In the now far-off days of the CEGB, when it had the clear and unambiguous responsibility for maintaining the security of electricity supplies, it kept a substantial reserve in hand. In the electricity pool, which succeeded the CEGB and was set up on the privatisation of electricity, there was also provision for some reserve capacity in the form of capacity payments. Those were not continued under the new electricity trading arrangements, and with the collapse in wholesale prices, stimulated by NETA, a number of generating companies withdrew or mothballed excess capacity. In previous debates on this subject, Ministers have contended that mothballed capacity was equivalent to an available reserve, but that very much depends on the time taken to bring the capacity back into operation, and in some cases this could be a year or more.

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In view of the supply uncertainties lying ahead, the Government should give serious consideration to the reintroduction of a form of capacity payment, which could offset the impact of fluctuating market conditions, which in the case of such a basic commodity as electricity would have a serious impact on consumers. Such capacity payments could ensure that a necessary proportion of plant remained on standby even when not generating, rather than being withdrawn and mothballed.

There is also a case, both on security and environmental grounds, for extending special support for other forms of electricity generation, in both the renewables sector and the non-renewables sector. More, for example, should be done to stimulate biofuels, on which no doubt the noble Lord, Lord Palmer, will be speaking later on. On Monday 17 January, I asked a Question about combined heat and power and its contribution to carbon abatement. CHP also has a major advantage in contributing to security of supplies by taking pressure off the grid and making use of the waste heat. I have an interest in the small-scale generation of electricity, a concept that the Government have supported both in the energy White Paper and in the subsequent Energy Act. The most effective way to promote this concept is to introduce a CHP obligation similar to that applying to renewables, a point that I have made repeatedly.



Similarly, as the Government are well aware, there is a way in which coal, of which we still have plentiful reserves, can contribute to security and the environment. That is by supporting projects for clean coal technology, and the improved combustion of coal, together with carbon extraction. The Government have issued a further consultative document on the subject, but what we need is not more consultation but action on the basis of existing and proven technology. There is potentially a substantial export market for such a technology, particularly in China and India, if we can demonstrate it in action, as has been done in the United States, Canada and elsewhere.

Finally, there is the vexed question of the future of nuclear power, to which the noble **Lords, Lord Tombs, Lord Tomlinson** and **Lord Jenkin**, referred, and on which a decision must surely be reached soon.

I do not speak as someone who particularly supports nuclear energy—in fact I have spent most of my life fighting against it. Nevertheless, it is an issue that must be decided. To do so, we must be clear about waste disposal, capital cost, security and public acceptability. Those issues must be tackled now. Without a decision on nuclear power it will be impossible to construct a credible strategy for the future of electricity on which our economy and well-being depend.

In conclusion, there needs to be a strategy for electricity that ensures the maximum practicable security of supply combined with minimum harm to the environment. Such a strategy, regrettably, is not yet in place. The steps that other noble Lords and I outline will help to achieve that objective.

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**6.30 p.m.**

**Lord Bridges:** My Lords, the general direction of my remarks will be not dissimilar from that of previous speakers, although the content will be rather different. In particular, I shall say more about wind than we have heard so far.

I begin by recollecting the Second Reading debate on the Energy Bill on 11 December 2003, when I drew attention to the fact that the Bill did not focus on the gap that was likely to develop between demand for electricity in this country and the generating capacity available. The noble **Lord, Lord Whitty**, explained that that was not the purpose of the Bill.

The Government have now nailed their colours firmly to the mast by embarking on an extensive programme of promoting new generating capacity from wind, as part of their campaign to reduce, and when possible eliminate, generating plants that emit carbon dioxide. That programme does not seem to require specific legislation, although it is in fulfilment of our undertaking as signatories of the Kyoto agreement, which is evidently very important to the Government.

I emphasise that particularly because the main component on this policy appears to be the political commitment to Kyoto. Embarrassingly, the result is likely to be an even larger gap between demand and capacity, which will occur because, by its nature, wind power is available for only part of the time. As I said in that previous debate, we could in our current circumstance improve the well known phrase in St John's gospel:

"The wind bloweth where it listeth",

with the words,

"and the wind bloweth when it listeth".

It is important to understand that by installing wind turbines we do not, and cannot, guarantee that a certain generation of power and its transmission through the grid will follow, or that it will occur when most needed.

I refer to a paper dated December 2004, produced by Mr David White of the Renewable Energy Foundation, whose arguments I found very informative. I commend the paper to your Lordships who wish to follow the subject in more detail. He looked carefully at the experience in Denmark, which has made large investments in wind power.

Mr White explains that when the wind activates the Danish generators, the electricity so generated meets most of the domestic demand, and permits the export of the balance not required to its neighbours—particularly Sweden, which happens to have a large spare capacity of hydro power. When there is no wind in Denmark, the Danes can call on the Swedish hydro-electric reserves for electric power. There is, thus, a balance available to meet the internal Danish demand. Electricity cannot be stored, so the rule is that generation must equal demand, which occurs in the Scandinavian market in the case I have cited.

That will not happen in our case when there is no wind as our reserve capacity is declining. We are also worse off than the Scandinavians because our land

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mass is not large, and anticyclones may cover the whole of our country which becomes windless. There seems to be a serious risk that we shall be unable to meet likely demand if we rely heavily on extensive wind power for generation without reserve capacity from other sources to fill the gap on windless days.

It is worth recalling that the only external link that we have for power exchange, apart from Ireland, is with France from whom we import large quantities of power through the Interconnector. The original intention was to use the Interconnector for precisely the purpose of exchanging supply to balance demand at peak levels that occurred at different times in the two countries.

That worked well for more than a decade, but following the sale of London Electricity to foreign companies, the Interconnector is now used, as far as I know, only to supply French-generated nuclear electricity to our domestic market. I believe that it is almost wholly, if not entirely, generated by nuclear reactors in France.

That situation has worried me for some time as it will be open to the French authorities when their nuclear generator has reached the end of its life to present us with a heavy bill for reprocessing the nuclear waste caused by the generation of our electricity in the British market.

I suggest that we examine the French market for electricity generated by British wind power—say, at Dungeness—so that we can reach a better balance between the two markets and meet the principle that generation must meet demand, or at least make a worthwhile step in that direction. That would adapt the interesting Danish/Swedish example to our own circumstances.

The difficulty, as I see it, is that the Government have been heavily influenced by their desire to reduce CO<sub>2</sub> emissions as the guiding factor in their policy. There is what one might call an ideological commitment to Kyoto. That view is not related primarily to the needs of the British energy market, which should surely be the objective of energy policy in this country. The Kyoto commitment was the objective.

If we continue on the course on which we are now embarked we shall have both unreliability of supply and higher electricity prices as a result of subsidies to the distributors paid by the Treasury and higher prices paid by the consumer.

I do not pretend to have a solution to those problems, but I have suggested a way in which they might be alleviated. My main concerns are that we are on a course away from the system that we enjoyed in the past—a reliable source of supply via an efficient national grid at reasonable prices. We need to formulate again a national policy enabling industry to work and citizens to live within the conditions that we have enjoyed in the past.

The Government will no doubt claim that they are just attempting to cope with the excessive emissions of CO<sub>2</sub>, but our citizens will not be pleased with the result that leaves them freezing in the dark. The improvement in the

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upper atmosphere may be a comforting reflection but it is not a prime requirement of our citizens in their daily lives.

I end with a plea to the Government to propose to Parliament an energy policy that meets the objectives that I have mentioned. That is what our citizens want and what our commercial companies expect.

**Lord Dixon-Smith:** My Lords, I enter this series of debates, promoted by the noble Lord, Lord Tombs, with considerable trepidation. The debates have been going on for a number of years, and this is the first in which I have sought to take part. I want to talk about the subject from a slightly different perspective.

Like my noble friend **Lord Jenkin**, I was pleased to see the briefing from Ofgem, which it kindly supplied for the debate. I was interested to read it, but when I did so I was disappointed. As my noble friend said, the document is essentially short term. It makes no mention at all of global warming and the problems of carbon dioxide generation.

One has to assume that that is outside the context of the work that Ofgem does. But I had always assumed that the work that it does was established by the Government. My fear is that the subject is outside the perspective and time horizon of the Government themselves.

I hope that that is not the case. The Prime Minister pays lip-service to the problems created by global warming, although there are doubts from some of his recent remarks on whether his devotion to the subject is as keen and clear as one would wish. The subject is very important. The only mild genuflection in that direction is a passing comment about 185 megawatts of wind generation at present on stream.

What is the situation if we look at the problem of global warming from the global perspective? Carbon dioxide is currently at 375 parts per million in the atmosphere, as measured by the Mamelahoa observatory in Hawaii. It was 280 parts per million a century ago. There appears to be an increasing problem because, for the past two years, instead of going up at one part per million, which the century's progression implies, it has been rising at more than two parts per million per annum.

Against that is a growing scientific consensus that the upper limit at which we ought to accept the growth of carbon dioxide in the global atmosphere is probably somewhere around 500 parts per million. Beyond that, there is a point at which the consequences become wholly unpredictable. Certainly, 550 parts per million is probably when the safety valve bursts. If you put two parts per million into the time interval, we have 70 or 80 years to solve the problem. In the context of the electricity supply for the next five years, that may seem a long time. However, in the context of the strategic decision mechanism of the noble **Lord, Lord Tomlinson**, it is a remarkably short time, because we do not have such a mechanism.

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I have considerable scepticism about the Kyoto agreement. The noble Lord, Lord Bridges, says that devotion to Kyoto cannot be allowed to interfere with our national energy security; I took it that that was what he was really implying. I am afraid that I take a rather different view—that we cannot avoid and escape from the consequences of what is happening globally so far as CO<sub>2</sub> emissions are concerned. The Kyoto agreement now in place is the only game in town. If it works—there is an if—something more than 480 million tonnes of carbon dioxide emissions per year will be saved by 2012.

In that time China has 562 coal-fired power stations planned but not all approved, while India has 213 planned but not all approved. The United States has not helped us—it ought to know better—as it has 72. If those power stations come on stream, they will produce more than 2,500 million tonnes of additional carbon dioxide emissions per annum, five times the saving that Kyoto will achieve. The arithmetic is deadly. Its relevance to today's debate is that the need to reduce carbon dioxide emissions must be a paramount priority in everything that we do for increased generating capacity.

**Lord Bridges:** My Lords, will the noble Lord allow me to correct a remark that he attributed to me? I think I said not that we must obediently disregard Kyoto, but that we should apply it with some caution. My argument at the moment is that that is not being done. It is being taken as something engraved in tablets of stone, and we have to get on with it and think of something else. Maybe we do, but we have rather more flexibility than he suggests.

**Lord Dixon-Smith:** My Lords, I apologise to the noble Lord if I tightened his remarks, but I am afraid that I was trying to say what he has just said in a much more brief way. If that was inaccurate, I apologise.

If carbon dioxide emissions are the priority concern, replacing coal with gas is not an option because they are both carbon dioxide emitters. Although one is better than the other, it is still part of the problem. Where do we go? The noble **Lord, Lord Ezra**, has for a long time been an advocate of carbon dioxide sequestration—so-called clean coal technology. It is proposed that two of the new American power stations will have that built into them during their construction.

The success of the process is not guaranteed and the costs are unknown, so we need to be wary of that. Certainly a major effort needs to be put into that if it is to come forward. My own feeling is that, unless carbon somehow becomes a raw material for the materials industry, it will not succeed. Simply burying it may be a short-term solution, and so-called carbon sinks producing more trees may give us a 50-year time relief, but that is about all. Once the tree is mature, it stops absorbing more carbon. That means that we need to move on.

One of the questions that one has to ask in all this is what would happen if the £30 billion subsidy that the wind industry received were reapplied to other more reliable sources of energy, such as the Severn barrage

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or, indeed, a Thames barrage. Such a barrage is now being talked about as flood protection for London, with no mention of its energy-generating possibilities. I find that odd. The noble Lord, Lord Palmer, will talk about

alternative crops so I shall say nothing about that, but they will make a contribution. I merely observe that one can extract rather more energy from solar power per acre, using solar panels, than you can with plants.

It was the noble **Lord, Lord Flowers**, who remarked to me one day when I worked with him on the Science and Technology Committee that, in fact, we have only one source for our energy—nuclear. The question is whether we have nuclear generation 98 million miles away or here. It is worth remembering that all the hydrocarbon fuels that we consume are the product of solar energy built up over immense periods many millennia ago, and are being burnt off at a rate of knots.

All the other factors—energy conservation, combined heat and power, heat recovery and so on—will have to contribute. What do we see? We see little progress and little leadership or urgency from the Government. If the facts are uncomfortable, we push them out of sight if that can be done. On this issue, the Government are putting party politics before national interest.

**Lord Palmer:** My Lords, it is with great trepidation that I rise among a distinguished group of speakers. I do so as a farmer and the unpaid president of the British Association for Biofuels and Oils, more commonly called BABFO. For years I have been concerned about all our energy supplies, most especially where fossil fuels are concerned. I, too, am grateful to my noble friend for his excellent introduction to the subject. I am a new recruit to his loyal band of followers on their annual outing, although I did have my trials and tribulation during the passing of the Energy Bill. As by far the youngest member of tonight's band, I have become more and more depressed as speaker after speaker has warned of the dangers we are likely to face in future.

The problems of gas have been mentioned tonight. With oil at around 50 dollars a barrel, we ought to be urgently seeking alternatives—and so desperately need a cohesive strategic decision mechanism where the electricity supply industry is concerned. This is where I feel the role of renewables can be very useful. The Government's strategy to replace electricity generation from fossil fuels by low-carbon alternatives is in tatters. Leaving aside wind, which many noble Lords have mentioned tonight, and which is no more than partly replacing nuclear in all its unsightly placings—let alone its heavy subsidy—the biomass alternative has sadly been little short of a fiasco.

BABFO warned years ago that unless a proper commercial strategy were put in place, the effort would be wasted. It is tragic to think that after several years and nearly £100 million of research and development—yes, £100 million—that it has effectively been written off. The

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total area of relevant energy crops is hardly more than 1,000 hectares out of a total of 6 million. What a terrible waste of £100 million and, indeed, of land.

Farmers are in fact feeding the nation with half a million hectares which are set aside, wasted, idle and out of production. One obvious use for this land would be for biofuels, but there are biofuels and biofuels. For some extraordinary reason, Defra bureaucrats seem to have an infatuation with specialist biomass crops. The **noble Lord, Lord Whitty**, has recently announced a further £3.5 million of sweeteners for biomass. I had naively believed and hoped that the role biomass could play had been properly evaluated, especially bearing in mind the time taken for a biomass crop to come on stream, in comparison with the fuel use for a nine to 11-month growing crop such as sugar beet, wheat and oilseed rape. It must not be forgotten that energy from biomass crops costs a lot more than energy from fossil fuel.

We have already had the disaster of ARBRE. Until the actual costs of energy from these crops is known and the gap with fossil fuels known and bridged, I fear that Defra's dalliance with willow, grass and waste is doomed to fail. Liquid biofuels are different. They come from existing crops, they use known technology and have been fully costed. One must not forget that our current energy requirements are prone to unknown market forces all from increasingly unstable parts of the world, with no long-term supply guaranteed, let alone the volatility and fluctuation in price. The noble Lord, Lord Tomlinson, made this point most effectively.

It is also worth reminding your Lordships how relatively clean biofuel crops are to burn. I believe they have an important part in helping the Government to meet their Kyoto targets. Farmers are ready and willing to help Her Majesty's Government, which would in turn help their ailing industry.

Why do Her Majesty's Government not fund, for example, a small trial of biofuel plant to supply the National Grid? It would not be horrifically expensive. Farmers need help, guidance and a sympathetic ear from the Treasury. They could so easily play a significant role in a realistic and successful electricity industry. I urge the Government to seize the opportunity, before it is too late.

**Lord Willoughby de Broke:** My Lords, I join other noble Lords in thanking the noble **Lord, Lord Tombs**, for securing this evening's debate, in view of the important decisions which must be taken on the security of our energy supplies.

The Government will have some difficult choices. On the one hand, how to replace our present mix of energy sources as they become exhausted, as with North Sea gas, or are withdrawn from production, as with nuclear. On the other hand, they must find how to reconcile that with our commitment to meeting our Kyoto targets. If these targets seem an expensive way of achieving little in terms of reducing global warming, Kyoto is none the less important. As a signatory, the

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UK has set itself some demanding targets; as other noble Lords have pointed out, to produce 10 per cent of electricity from renewables by 2010 and what it terms an "aspiration" of 20 per cent by 2020. I am unsure of the difference between an aspiration and a target. Presumably an aspiration is a target that is thought unlikely to be achieved.

The Government seem increasingly reluctant to get to grips with the consequences flowing from their energy White Paper and their Kyoto commitments. For example, the House of Lords Science and Technology Committee report on renewable energy recommends that the Government:

"review the allocation within Government of responsibility for energy policy, with a view to providing strong and coherent leadership".

The DTI response is really extraordinarily limp. It simply lists a number of committees and review bodies, such as the sustainable energy policy network and the high level energy group—or in other words, "Yes, we have no leadership".

Yet this leadership is essential if we are to have a properly informed and balanced public debate. As the Science and Technology Committee goes on to say, on page 7:

"We could not avoid the conclusion that the Government are not taking energy problems sufficiently seriously. We could find no one . . . whose responsibility it was to ensure continuity of supply".

The noble **Lord, Lord Tomlinson**, and my noble friend **Lord Jenkin** of Roding, were not alone in being sceptical. Again, the report says:

"We found almost no one outside Government who believed that the White Paper targets were likely to be achieved".

That is strong stuff, but entirely justified. There appears at present to be a strong reliance on renewables and in particular on wind power to achieve the Government's self-imposed targets. While the consequences of this policy have been extensively debated outside government, the Government themselves have not produced any coherent and workable strategy for achieving security of supply while meeting their carbon emission reduction targets.

As the noble **Lord, Lord Bridges**, pointed out, wind power is both intermittent and random. This means that wind power will almost always need fossil fuel back-up plants running at low efficiency. Given that need for fossil fuel back-up, wind power, while emission-free at the point of electricity generation, does not give us an emission-free energy policy. When the noble Lord, Lord Bridges, mentioned the Danish experience of wind power he did not point out that the cost of the Danish model of wind power electricity generation is something like twice the current cost of electricity in the United Kingdom. So far, the Government have not addressed those problems.

If wind power is expensive—the noble **Lord, Lord Tombs**, pointed out that astonishing figure of £30 billion up to 2020—if it is not emission-free and if it has serious environmental limitations, what have the Government to say about nuclear power, which is reliable and carbon-free? Not very much, it seems, and

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that is, I would argue, irresponsible. The Government have so far said only that they will be keeping the nuclear option open. That amounts to masterly inactivity in my book.

Under the Government's forecasts, as the noble **Lord, Lord Tomlinson**, reminded the House, nuclear-generated power is due to reduce to zero by 2020. Like the noble Lord and my noble friend **Lord Jenkin**, I would like to know how that energy gap will be filled. Will it be by coal; by imported gas; or by building, in the teeth of strong

opposition, thousands of offshore and onshore wind farms at vast cost? But we do not know the answer. Why? Because the Government do not know. We should know. After all, we are paying the bills. I hope that this debate will help focus the Government's mind on their responsibilities for future energy supplies.

**Baroness Miller of Hendon:** My Lords, we are all indebted to the noble Lord, Lord Tombs, not only for having secured today's debate but for his tenacity in constantly returning to push everyone into considering these matters—having brought them to our attention, not just this January, but last January and the January before. It is a great pity that his concerns over the subject, which so many of us share, do not receive the publicity that they deserve.

Indeed, I support my noble friend **Lord Jenkin**, in particular, when he talked about the lack of publicity and the fact that wonderful programme, "If", whose producer he met and who knew nothing about what we had done afterwards. Only yesterday, in the *Daily Telegraph*, a piece was published by three eminent scientists who mentioned the problems of the committee dealing with nuclear waste. Nowhere in that article did it say that we dealt with the matter extensively last Wednesday. Perhaps it is time, as my noble friend said, to ask the authorities in the House to find out why no one is reporting excellent debates such as this and no one will hear about them. All will depend on the few people who read *Hansard*.

I shall not rehearse the statistics concerning the steadily deteriorating supply situation and the current inexorable march towards almost total dependence on supplies of gas from foreign suppliers, many of whom are from far from stable regimes, because many noble Lords have already raised that matter. However, it is right to point out that, in so far as the Government have any discernable policy, it is to have no definite policy, or a minimum of policy outside of the continuation of that increasing dependence on gas, coupled with placing a fervent and optimistic faith in supplies that they hope will come from as yet undeveloped renewable sources. I am not that optimistic. The noble Lord, Lord Tomlinson, said that he was optimistic by nature, but he, too, did not think that the Government would achieve that.

Among the foremost of these sources is wind power. I shall leave aside the economics of the capital costs—I was shocked at the figures given by the noble Lord, Lord Tombs—and the adverse effect on the

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environment of the giant windmills, of this source of generation. The simple fact is that wind is not a consistent and reliable source of power. The noble Lord, Lord Bridges, and my noble friend **Lord Willoughby de Broke**, have mentioned that. The wind does not blow all the time or at times when there is a major demand for power.

In an article in *Power UK* in April 2004, Alex Henney and Max Bidwell reminded us that:

"Electricity cannot be stored. The amount produced each instant must equal the amount being demanded . . . or the system will collapse".

All that wind power can do is to supplement existing major sources of generation—which, apart from gas are declining, as other noble Lords have said—when weather conditions are right, to reduce the calls on, and use of, fuel by those sources.

Despite this, we on these Benches support the use and encouragement of all forms of renewable energy as part of Britain's power resources and our contribution to protecting the environment. Contributing to the reduction of CO<sub>2</sub> is an important part of our considerations and I was concerned about an answer that the Minister answering this debate gave to my noble friend yesterday, regarding the reduction of carbon emissions. It is clear that Her Majesty's Government had tried to delete from the key European text the targets that had been set for carbon emissions and I should be grateful if the Minister would comment on that.

The Leader of the Opposition, in his speech to the environment forum hosted by the Green Alliance and Environmental Resources Management last September, made clear his support for all kinds of renewable energy. But the truth is that we have heard tonight that meeting those targets will be extremely difficult. A snapshot of what the Government must address can be found in the statistics published on 6 January by the DTI, comparing the third quarter of 2004 with the same period in 2003: generators used 0.07 per cent more fuel; coal usage was 2.6 per cent lower, nuclear generation was 10.6 per cent down, but gas usage was 6.4 per cent up; the use of electricity was 3.6 per cent up; and domestic consumption increased by 3.8 per cent and industrial consumption by 3.7 per cent.

These statistics show a growing demand for electricity by all consumers and an increasing dependence on gas, coupled with a decreasing use of our own independent sources of supply. They send a message to the Government that they cannot continue to dither about the problem of ensuring the security of supply for the UK. The Government have also received a stark warning from Dr Dieter Helm, a member of the Prime Minister's own Council for Science and Technology, who described our power generation system as "clapped out". The increasing demand to which I

have just referred and the precariousness of our supplies of fuel mean that the Government will ignore this warning at their peril—perhaps I should say, at the whole country's peril.

Another problem faces our electricity supplies which has nothing to do with the fuel used to generate them. Noble Lords will recall the major "brown outs"

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and blackouts in places as widespread as California, New York and north east USA, Canada, Italy, France and Switzerland in 2003. In the course of six weeks during the heat wave of 2003, 112 million people across six European countries were left without power. It took only four seconds to produce the chain of events that wiped out most of Italy's electric power and a full day to restore it.

The recent disastrous floods in Cumbria resulted in tens of thousands of people having their misery added to by power being cut off for days. Admittedly the situation in Cumbria was unprecedented and the power company called in engineers from around the country, even from Ireland, to work on the problem and is offering compensation to customers who were cut off for more than 48 hours. But customers do not want the prospects of compensation. They want to know that if the very worst came to the very worst, they would not suffer long-term disruption. They want to know that normally occurring adverse weather conditions, of which we all know—and the conditions in Cumberland were certainly not just adverse—will not cause needless disruption.

Following the blackouts that occurred in London and Birmingham in 2003, Ofgem said that while the problems were,

"not a breach of the National Grid Company's licence, its wider conclusions do not give the company a clean bill of health over the blackouts . . . and there are . . . important lessons for the company to learn".

Well, we all know what that means, do we not? Ofgem has said that it will introduce a scheme to supplement the National Grid's licence and statutory obligations, and has threatened National Grid with severe financial penalties if the London and Birmingham blackouts are repeated. Could the Minister say exactly what those new conditions are and whether they are yet in force?

The fact is that, apart from the long-term strategy required to secure our electricity supplies, there have to be contingency plans in place to minimise the short-term effects of one-off incidents, such as in Birmingham or Cumbria or on the London Tube. Individually, they may be isolated incidents, but they are always occurring, and need to be planned for.

I now turn to a topic to which I referred in the speech I made to your Lordships on 8 February 2003—the new electricity trading arrangements, NETA. The time has long since passed when it could properly be described as "new". I stated then:

"They seem to have been successful in increasing competition and reducing wholesale prices".—[*Official Report*, 8/1/03; col. 1041.]

However, as the noble Lord, Lord Tombs, pointed out in that debate, despite the reduced wholesale prices, domestic prices remain unchanged. The noble Lord used the word "chaos".

It is right to remind your Lordships that, during the debates on the Energy Bill, the Government strenuously resisted our amendment placing the responsibility for security of supply on the Government. They eventually reached a compromise over the wording, but the responsibility is still there and it is still theirs.

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After the passage of the Energy Act, the question raised by this debate is: what are the Government currently doing to meet their obligation? Clearly, the issue which cannot be fudged or evaded is the part, if any, that is to be played in our economy by the nuclear industry.

I heard the Home Secretary say in an interview last week that his mind was not closed to the future of nuclear power as part of the equation. I suppose that is a small step forward from merely "keeping the nuclear option open", but this was offset by the Home Secretary's refusal to describe nuclear power as a renewable source. All he would say, with manifest reluctance, was that it is a non-carbon fuel.

Two years have elapsed since the first time we debated this subject. The Minister, agreeing with my noble friend Lord Jenkin of Roding, said,

"the role of the Government is to provide a co-ordinated and coherent framework in which the decisions are made by private industry".—[*Official Report*, 8/1/03; col. 1046.]

There are some matters that private industry cannot decide. They are the proportion of fuels which generators are enabled to use; the siting of new power stations; and, indeed, whether to build new nuclear stations. Also since the last debate, the Government have been given the statutory responsibility of ensuring security of supply.

The present debate calls the Government's attention yet again to the absence of a strategic decision mechanism for the electricity supply industry. Perhaps the Minister will now be able to tell the House what, if anything, the Government have done in the two years since we last discussed these matters to see if we are anywhere nearer fulfilling that role which is continually asked for by the noble Lord, Lord Tombs, or whether, this time next January, we shall be standing here, saying exactly the same things again.

**Lord Triesman:** My Lords, I am very grateful that the opportunity has fallen to me to reply to this debate, notwithstanding the difficulties and criticisms that have been raised. It has again shown the depth of experience and expertise in the energy field that resides in this House. It is an experience and expertise which I do not have in the sense that some noble Lords do. I therefore start by thanking the noble Lord, Lord Tombs, for continuing to instigate vital debates on this matter. I was about to say "long may he continue to do so", but he may not want to be doomed to do so very frequently.

I thank enthusiastically all noble Lords who have taken part. The noble Baroness, Lady Miller of Hendon, has asked what we are doing to meet the obligation. I hope that the general tenor of what I have to say, aside from replying to the specific points which have been raised by noble Lords, will give some indication of that.

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I will start by setting out the basis for the Government's present approach and I will then turn to the alternative which has been proposed by the noble Lord, Lord Tombs, vigorously supported by other noble Lords.

It should be stated very simply that ultimate responsibility for security of supply clearly rests with the Secretary of State. Noble Lords will recall the duty, introduced by the Energy Act 2004, to provide for parliamentary consideration an annual report on the security of supply. That responsibility is plain, and the DTI has the lead responsibility. Others have an interest, of course. For example, in this House my noble friend Lord Whitty leads on energy efficiency. Defra has responsibility for environmental concerns. There are issues that concern the devolved administrations. They cannot be taken out of this strategic equation. My right honourable friends Patricia Hewitt and Margaret Beckett jointly chair the ministerial group responsible for the implementation of the strategy in the energy White Paper.

We have established a sustainable energy policy network to implement those parts of the White Paper and this is again co-chaired by the two Secretaries of State, who do have that specific responsibility. As to the manner in which the Secretary of State's responsibility is discharged, we firmly believe that this is best done by leaving the key functions that others must have to those who are best able to deliver them. This, we believe, is the strength of our current regulatory system.

Noble Lords have made a number of specific points, which I will come to. However, I would like to look at the crux of the argument of the noble Lord, Lord Tombs, that the current regulatory system in energy is not an optimal means, and not a strategic means in a strong sense, of delivering the Government's energy policy. Looking at the history of energy supply and the industry since privatisation, I think it fair to say that the market-based policy framework is effective in achieving the goals of an affordable, reliable and sustainable energy supply.

If central planning were omnipotent or omniscient, as perhaps some people might suppose, I have no doubt but that we would have had a very much stronger, centralised, State regulatory system. However, I know that the official Opposition itself believed that to be a completely unsustainable way of going forward. I simply put this general point to noble Lords about the nature of the political decisions that we have taken in this country, because they reflect where we are. In moving from a state-managed system, a highly centralised system, to a system which was privatised and allowing that to deal with some of the key strategy areas, it is inevitable that, the more we involve the state, the more we take it out of the blend that can be achieved by the market. That is simply a truism of economic performance.



In this respect, it may help if I outline how the current UK regulatory regime works, particularly with regard to securing the UK's energy supplies—an issue

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which this debate has proved continues to be at the top of the agenda for the Government and for your Lordships.

As noble Lords will be aware, under current energy legislation, the DTI and Ofgem, the energy regulator, have complementary roles in maintaining security of the UK's energy supplies, subject, as I have said, to the ultimate responsibility of the Secretary of State. The Government's role is to set the overall policy direction and the environment in which energy industries are regulated.

Some noble Lords, in particular the noble Lords, Lord Tombs and Lord Ezra, have put security as the most important of the elements they have discussed. Very fairly, however, the noble Lord, Lord Dixon-Smith, has said that you cannot step aside from the climate and protection of the climate issues. It is very hard to prioritise one without proper regard for the other.

The energy White Paper set out the direction of energy policy for the next 10 years. In particular, it stated that maintaining reliable supplies of energy is one of the four goals in government energy policy. The other goals are to put ourselves on a path to cut UK carbon dioxide emissions—the main contributor to global warming, as noble Lords have made clear. The cautionary comments of the noble Lord, Lord Dixon-Smith, about those countries which are very reliant on fossil fuels—India, China and the United States—have particularly exemplified the point. However, our aim is to cut them by some 60 per cent by about 2050, with real progress by 2020. The second of the additional three elements is to promote competitive markets in the UK and beyond. Also, helping to raise the rate of sustainable economic growth and to improve our productivity, and to try to ensure that every home is adequately and affordably heated.

It also recommitted the Government to a market-based approach in ensuring security of energy supply. In recognition of the fact that if the market is to work, it has to be allowed to work in an environment of regulatory predictability and stability. In that light, the Government undertook not to intervene in the market except in exceptional circumstances; for example, a potential serious risk to safety.

Ofgem also has a role to play in ensuring that the market works, particularly through monitoring the market for signs of anticompetitive behaviour, with the potential to fine transgressors very considerably and to ensure that companies meet their licence conditions. In addition, Ofgem helps to ensure that energy can be delivered by allowing sufficient investment in networks in its price controls.

There is of course an important role for the National Grid Transco in maintaining security, particularly in balancing the system and providing the market with information on demand and supply, the winter operations report and the seven-year statement. The NGT also maintains an operating margin to meet unforeseen events. The market has a role by encouraging cost reflectivity and providing a strong incentive for suppliers to provide electricity for which they have contracted.

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Market signals, and especially prices, will indicate when investment in new build is both needed and economically viable, although I know that that is not the answer that the noble Lord, Lord Tombs, will be looking for. I want to return to some of those strategic issues in a moment. The system is broadly working well. For instance, generation margins are currently 20.3 per cent. No problems have been experienced with the overall demand/supply balance so far.

We also saw evidence of the way that the market is working to deliver secure energy supplies last winter. In the winter of 2003-04, generators brought mothballed plant back into service in response to rising electricity prices and signals from the National Grid Transco that they would like greater capacity going into the winter. As a result, the plant margin for last winter rose from a projected level of just over 16 per cent in July 2003 to 20 per cent by Christmas. Electricity supply was sufficient to meet demand throughout the winter. There is clearly a point in the argument advanced by the noble Lord, Lord Ezra. It is not the same as having a reserve unless mothballing can be reversed quickly so that that plant comes on-stream very rapidly.

Looking further ahead, recent announcements show that the market is thinking about the need for new build to meet future demand even before prices reach levels that would indicate a tightening of supply/demand balance. For

example, Centrica proposes to build a new power station in south-west England, and E.ON recently announced plans for an upgrade of its generating facility on the Isle of Grain.

There are also a number of projects to increase the capacity for gas imports to the United Kingdom, with three planned interconnections from Norway, Belgium and the Netherlands—not in my list of unstable regimes. There are also three new, liquefied natural gas import terminals planned—two at Milford Haven and one at the Isle of Grain. Those projects are expected to become operational between 2005 and 2008. Together, those projects could make a substantial contribution to meeting UK demand in the future. They are all initiatives from the market.

I understand the point that has been made by many noble Lords about the security of supply in relation to unstable regimes. I have mentioned some that are plainly not unstable. But it must be said that, over a period of 20 years, the supplies from some of the regimes in what was the Soviet Union—now Russia—around the Caspian, and so on, and in North Africa, have been reliable. I would suggest that that is largely because the economic dependence of those countries on reliability of supply is fundamental to their economies. Of course, that is not an argument for being complacent or disregarding the possibility of risk. But there has been no evidence of it so far.

The Netherlands and Norway, in the formula for import that I have mentioned, have 4 trillion cubic metres of gas reserves. Pipelines to the UK from both countries are now under construction. I repeat: ultimate responsibility for security of energy supply rests with the Secretary of State. It is a responsibility best discharged by

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leaving key functions with those with the expertise and resources to deliver them in a policy framework that provides appropriate incentivisation.

That is the strength of our regulatory system. No system is entirely risk free, but I propose that the British market framework is no riskier in terms of government energy policies than was the case under nationalisation. When the electricity supply industry was notionally under the control of a single authority before 1990, its experiences were not happy ones. Since liberalisation in 1990, however, the British generation market has demonstrated that it can provide adequate supplies under the present regulatory system. There is no inherent reason why it should not continue to do so.

Perhaps I may turn to the specific points that a number of noble Lords have made. I have made the general points about the strategic centre of what we are doing, which I know will not satisfy noble Lords. None the less, they are, at the moment, the central part of the Government's policy.

The noble **Lord, Lord Ezra**, raised several important points. He advocated, as he has frequently in your Lordships' House, diversity from small-scale generation through to renewable generation. He knows from responses that have been given from this Dispatch Box by a number of my noble friends and, I hope, by myself that we fully support that. We looked just last week at the notion of a CHP obligation. On that occasion, I made the point that it is a very diverse set of resources to bring together under one obligation. I think that other noble Lords made the point that it would probably be very hard to do that in a cost-effective way.

The noble **Lord, Lord Bridges**, raised a number of important points about the intermittent nature of wind energy. I am told, and I have no reason to disbelieve it, that it is now very much more predictable and models can be drawn together that give greater predictability to that kind of capacity.

The noble **Lord, Lord Ezra**, mentioned the reserve capacity targets and the capacity payments between 1990 and 2001. The CEEB did target plant margin, but that did not prevent involuntary demand control. Post privatisations, there have not been any incidents of involuntary demand control, despite there being no specific target. Capacity payments were inherently arbitrary and prone to manipulation by the generators. Other countries also have energy-only electricity markets—for example, Australia.

The noble **Lord, Lord Bridges**, raised the relationship with the French. Daily flows of electricity depend on differential wholesale prices. We import because of price signals—we also export on that basis—which are governed by the supply/demand balance. The United Kingdom will not be presented with a bill for the decommissioning of French nuclear reactors. It is a French responsibility. Proposals to build the 1.3 gigawatts interconnector with the Netherlands and the new interconnector with the Irish Republic are also key parts of our policy.

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My noble friend **Lord Tomlinson** raised a number of points. Soon I shall turn to the fundamental questions of nuclear. But I would just ask him, particularly because he has indicated that he is open to the argument, not to write off—even if he says that he is not, I kind of pick up the flavour that he might be—what might be done in the renewables field, which is a very new field that shows a huge amount of potential. I shall return to the point that he and others have made about nuclear in a moment.

It is very hard to deal with the question about how long it takes to build a nuclear power station. I understand that the bulk of the time is taken up in the planning rather than the building. Of course, the different technologies would take different amounts of time.

The noble **Lord, Lord Dixon-Smith**, has made a number of important points. I shall mention just one of them in response to a specific point that he made. It is my understanding that there has been some discussion about whether the Thames barrage might have electricity-generating potentiality. I want to look into that to ensure that my memory is not at fault. I shall write to him about that when I find the information.

The noble **Lord, Lord Palmer**, asked about the Government's view of policy in relation to biofuels. The Government intend to set an ambitious, but realistic target for biofuel sales by 2010 as soon as possible this year. They will do so once the feasibility study is under way and consultation on a renewable transport fuel obligation has been concluded, and once a decision has been taken on the most appropriate method for promoting biofuels. They are a crucial part of the way forward, and it certainly could not be the case that we did not look at them with seriousness and intent.

The noble **Baroness, Lady Miller**, asked me to comment on a point in relation to the Question that I answered. I said in my Answer the other day that we had not changed our objectives. Indeed, I have repeated some of those objectives in the United Kingdom. I understand that the United Kingdom Government have not opposed the EU setting longer-term targets for emissions. The Greenpeace allegations are a distortion of the position. However, we have appealed to the EU not to set targets out of thin air. It is essential to make sure that a cost-benefit analysis is being carried out in the light of the latest scientific information. The Commission is undertaking that analysis. The results will be available at the end of January or early February. When that information is available, there is no reason why the 2050 targets for carbon emissions cannot be set on an informed basis. That is why that dialogue took place in Europe.

I turn to perhaps one of the cardinal issues; that is, the nuclear option. Many noble Lords have raised it. There has been a lot of debate about what the Government mean about keeping the option open and what we are doing to keep it open. The Government recognise the central importance of preserving and developing the skills base needed to do so. The Cogent Sector Skills Council was licensed on 2 March last

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year. It is undertaking a strategic view of the nuclear sector, ensuring that the education and training base can meet the nuclear employers' future needs. Cogent will work closely with the Nuclear Decommissioning Authority. The research councils are playing a part as we have discussed at length. A great deal more effort is being put into a co-ordinated approach to nuclear research and energy research more generally. Therefore, we have established the new UK Energy Research Centre to achieve this.

However, the fundamental issues still remain. Keeping the option open—and I am an enthusiast for keeping the option open in a robust way—means that we are going to have to deal with some of the legacy issues more successfully as well. What happens in terms of security? What happens in terms of waste? What gives confidence to people that it is not a dangerous line to go along if the market decides that it wants to do so? We are going to have to resolve the questions about where installations will be built and who the welcoming hosts to new build will be.

We have been faced in today's debate with some fundamental issues. The noble Lord, Lord Tombs, made one appeal to which I shall respond directly, as I respond directly to the appeal that the publicity is properly secured for these matters. I am discussing how to make sure that that is the case with officials in the department. The noble Lord, Lord Tombs, asked that we take some of the ideas away and give them further thought. I give the undertaking that we will do that. I am keen to do so. It is the Government's wish to make sure that the ideas that are raised in debates of this kind and on many other occasions are given that proper ventilation and proper and serious attention. I undertake that we will do that.

**Lord Tombs:** My **Lords**, I thank the Minister for that reply, which, as he would expect, has disappointed me somewhat. However, I recognise that he has done his best to lend an air of coherence to an essentially incoherent policy. I recognise the need for that in the present circumstances.

I do not propose to waste noble **Lords'** time by dissecting the Minister's arguments; I might do that privately if I get the opportunity. However, I cannot resist saying that the very idea of "joint chairmen" of an area requiring positive action is a total contradiction in terms. I just cannot understand the need for, or desirability of, such a situation.

The Minister mentioned that some of the problem areas have had 20 years of stable government. One only has to mention Belarus, Ukraine and the present situation in the Middle East to have some doubts about whether that will continue for another 20 years. In any case, 20 years is a short time in energy policy, so the argument is not convincing.

On the question of the press coverage of the dealings of this House, I share the disappointment that was expressed by the noble **Lord, Lord** Jenkin, and the noble Baroness, Lady Miller, but perhaps the press shares with Ofgem and the DTI a short-term vision.

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I thank the faithful few who turned up this year, last year and the year before. Given the reply that we have heard today, I have every confidence in meeting you again next year. Perhaps I can thank also those who have swelled our numbers a little this year and those who have come to listen. I hope that you will all come again to the debate next year, which, if I am able, I shall certainly promote. My **Lords**, I beg leave to withdraw the Motion for Papers.

Motion for Papers, by leave, withdrawn