



## FUTURE ENERGY MARKETS

**Alan Simpson (Nottingham, South) (Lab):** I am extremely grateful to you for choosing this subject for debate this afternoon, Mr. Deputy Speaker, particularly as it follows the Chancellor's announcements in his Budget speech about the intention to hold an energy services summit in the coming year.

I begin by declaring a couple of interests. Future energy markets have interested—perhaps obsessed—me since I entered Parliament in 1992. I have been chairman of the all-party group on warm homes for most of the time since then and I have had a continuing involvement in trying to determine how we address fuel poverty. Lately, I have had a personal interest in the subject in that I have taken it upon myself to try to turn a derelict shell in the middle of Nottingham into a property that I will live in and which, I hope, will generate 50 per cent. more energy than it consumes. I should add the caveat: I will tell the House whether it does that once I have completed the project.

What fascinates me in broader structural terms is our extraordinarily impressive Government targets. Under the Warm Homes and Energy Conservation Act 2000, we are committed to eradicating fuel poverty entirely in the United Kingdom by 2016. Under the Kyoto protocol, we are committed to reducing our carbon dioxide emissions by 12.5 per cent. from 1990 levels by 2008 to 2012. The Government's own targets also commit them to supplying 15 per cent. of domestic energy needs from renewable energy sources by 2015.

Those are admirable targets. The difficulty is that, according to current trends, we are unlikely to meet any of them. Last year's figures, which we have just seen, show that carbon emissions increased by 2.2 per cent. We know from answers given by the Office of the Deputy Prime Minister that only 16 per cent. of the current UK housing stock has a SAP—standard assessment procedure—rating of 60 or more. That percentage must comprise new housing stock that has been built to new housing standards, but the overwhelming majority of existing housing stock is fuel inefficient, if not fuel poor. We must work out how to address that problem against the challenges of climate change.

Last year, I spent quite a lot of time visiting energy suppliers and asking them their views on their responsibilities towards renewables and reducing carbon emissions under the Government energy efficiency contribution. The most difficult thing for me to deal with was that I could not find a single energy supplier with a business plan based on selling less consumption. We know that we must reduce our energy consumption nationally and globally by making the connection between energy consumption and carbon emissions. Yet there is no company in the land with a plan for doing that. The explanation given by the suppliers is simple: they tell me that they cannot make money out of selling less. If the Government want them to do that, we will have to change the nature of the market so that they can create markets that will supply energy services rather than energy consumption.

I drafted a private Member's Bill as a presentation Bill that sets out some of the ways in which we could do that, but I want to explore with the Minister today the precise way in which we could reconfigure our thinking on energy markets to engage with the really big challenges that

the 21st century will present to us. It is worth turning the clock back and considering the perspective of Thomas Edison when he invented the light bulb. His intention was not to sell electricity, but to sell light. We need to take that concept on board and to create energy markets for the future that sell, not energy consumption, but home warmth. If companies can make money out of households consuming less, they will be encouraged to invest in long-term products that make our houses more energy efficient and, in all probability, energy generating. At the moment, we do not have such rules. I have spoken to Ofgem about its relaxation of the energy market rules. That has been helpful in principle: the relaxation regarding the sort of contracts that can be offered to customers has meant that companies can consider engaging in longer-term contracts and avoid the one-month trap that enables a customer who does not like his supplier to chop and change. That aspect of the market that we created initially meant that companies were willing to do a lot about the delivery of low-energy light bulbs, for example, or to invest in and make available at low prices things such as draughtproofing and loft insulation. Some of them went further, and were willing to go into broader conservation measures that reduced heat loss, particularly if those measures were targeted at the fuel poor.

I congratulate the companies that have done those things. However, we are still scratching the surface of the problem. When I try to raise the issue with companies, they tell me that, in principle, they are not reluctant to go down that path, but they find either that there is little interest or that they have no lever if they try to offer such a service to the public. More particularly, they say that it is not the role of electricity suppliers to act as the Government. If we want to change the nature of the market, we should take a lead. The companies are right to ask us do so.

The examples that are always quoted are properties that are in multiple occupancy, which figure disproportionately among the most fuel-poor properties in the UK. When energy suppliers have offered the owners of those properties different energy systems or more thermally efficient energy packages, the owners have, by and large, told them to get lost, assuming that their only interest is to sell products. The owners' interest is in running the properties as a rental business for an income, so why on earth should they be interested in a package that will cost them money? I understand the dilemma in which that leaves the energy companies.

At one level, we have to give a lead that probably involves raising the thresholds that we set for the energy efficiency of all rented properties. I cannot see a coherent case for constructing or supporting housing markets that are based on access to properties that are of extremely poor quality in terms of their thermal efficiency. That would run completely counter to the Government's target of eradicating fuel poverty in the UK's housing stock. If we changed the thresholds and set a different SAP rating of 60 or 70, that would be a start. Then, those who sought to sell or let properties would know that they had to meet the new thermal thresholds that provide decent housing conditions for every household in the UK.

Next, we should ask how to reduce the carbon consumption of our existing housing stock. If we are looking for an example of how best to do that, we would be hard pressed to find one much better than Woking. I never thought that a revolution would begin in Woking, but it has set out a model for the UK that the rest of us should stand in awe of and applaud. In the past 13 years,

Woking has reduced its carbon emissions by 77 per cent. It has plans to come off the national grid: there will be a local generating system using renewable sources and micro-combined heat and power. Energy-generating lamp posts have already installed: the lighting comes from beautifully designed solar lamp posts with wind-generating capacity. No one objects because the design of the generating system is stylish and inconspicuous and as a network it is phenomenally successful.

We are going to have to rethink our expectations about the ability of every building in the United Kingdom to generate a proportion of its own energy consumption. We will have to consider this as part of the design requirements of new buildings. We will have to follow the Japanese example: if we want a market for photovoltaic roofs, the best thing is for the Government to give a lead and make a commitment that there will be 1 million installed in the UK, as there are to be 1 million installed in Japan. We need to take the same sort of lead as the German Government, who have created a market in which they are the purchaser of renewable and sustainable energy systems. That has given Germany its current lead over us in the global market for renewable and sustainable energy systems: the UK has about 4 per cent. of that market, whereas Germany has 15 per cent. Germany has that lead because its Government have created a market in which German technology suppliers have been able to test, pilot, install and go into production on a significant scale. In doing so, they have reduced unit costs, thus making the technology viable on the open market, whereas we in the UK are still stuck at the level of looking for research rather than creating new markets.

One of the saddest things for me was that in 2000 the Prime Minister made a commitment to set aside £5 million to pilot sustainable energy systems targeted at the fuel poor. The money was set aside in a Department of Trade and Industry budget, but not a penny has been spent. The Government have not taken the lead in delivering those pilots, which the nation desperately needs. We have relied on the Wokings of the country and places such as Leicester, which have taken the decision to go out and look for their own renewable and sustainable energy systems.

I should like the Minister to address a number of issues, not necessarily in his reply to this debate, but perhaps by committing to taking them forward in the energy services summit's discussions. As a country, we will have to work out how we respond to the EU directive on energy services. It would be helpful to have some guidance on how the Government see themselves doing that.

We need to consider changing some of the rules governing energy services. One of the major obstacles is that someone who installs a self-generating system in their own home and has a two-way metering system that supports the re-absorption of any excess energy capacity generated—so that it can be fed back into the system as clean, carbon-free energy—receives only a fraction of the energy supply price as a buy-back price. The reason for this is that current market rules have large charges added on to the buy-back price for access to the supply and distribution system. In reality, those are nonsense charges because most of that energy does not need to go back into the national grid.

The experience in Woking led to the conclusion that their CHP systems were 90 per cent.

efficient in generating energy because the transmission was local transmission. The same energy, if fed into the national grid, has an efficiency of about 20 per cent. The energy is spun round, the charges for access and use of the system are all added on and the cost to society amounts to something like five times the buy-back price. We therefore need to change those rules to narrow the buy-back price so that it reflects what it would constitute as energy gain in a local energy system. If suppliers were able to buy back from themselves at a more competitive rate than at present, the whole set of commercial interests would change.

So far, the only company that I have been able to find that is interested in a self-generation or local generation system has been Powergen. I pay tribute to Powergen, because it is willing to pioneer that system. However, all the energy suppliers must become part of the same game. We need to recognise that there is no coherent case for a national extension of the gas network to more remote communities: that would be colossal in its capital cost and questionable in its energy security, given our reliance on future gas supplies from outside the UK. However, if we were able to examine the possibility of microgeneration systems at a community level and to remove the existing ceiling on energy supply for domestic purposes, the market would change. My final point relates also to local suppliers. There is a bizarre rule that states that companies that can acquire an exempt licence for energy generation can generate 50 MW of energy, but are only allowed to supply 1 MW of that for domestic purposes—that amounts to energy supply for about 1,000 households. If we removed that ceiling, the prospect of introducing sustainable energy systems for whole communities, in urban as well as remote areas, would be transformed.

I believe that this issue is the most important part of the energy agenda for the 21st century. We all know that oil will run out, that there will be problems in gas transmission supplies and that coal cannot be compatible in the long term with the climate change challenge that we face from Kyoto. We have to offer ourselves a different view of sustainable energy markets. If we do so, it will also be the greatest gift that we can offer to emerging nations, which have their own energy needs but which must be freed from the burden of meeting those needs by taking the same polluting path that we did in the past century. I hope that the Minister will accept and meet that challenge, not only domestically, but as a gift to a century that will need sustainable energy supplies.

*The Minister for Energy and E-Commerce (Mr. Mike O'Brien)* : I begin by congratulating my hon. Friend the Member for Nottingham, South (Alan Simpson) on securing this debate on the importance of promoting energy conservation, which is a key issue. The UK faces not only the global threat of climate change, which every nation has to deal with, but the fact that we will become a net energy importer as from next year. Indeed, at least statistically we became a net importer of gas from December 2004. Although the position will vary from month to month, certainly by 2006 we are likely to be a net importer of oil, too.

There are considerable implications for this country. It means that we must look to the security of our energy supplies for the future. We must consider the need to reduce our consumption of energy. We certainly do not want to waste energy, because much of it will be imported. That puts a premium not only on dealing with climate change by addressing energy efficiency—that is why the Government published the energy efficiency strategy last year—but on ensuring that

we develop new technologies and new means of producing energy that do not damage the climate. We need to ensure that, as we move towards 2050, we are developing a low-carbon economy that is prosperous. We need to ensure that our manufacturing has enough energy, that our homes are lit and have enough energy and that we are not damaging our climate.

Security of supply, which is coupled with the need to prevent damage to the environment, will come about through diversity of energy sources. We have a range of energy sources. At the moment, fossil fuels are a component of that range. We will need to consider other ways to develop the range of fossil fuels without damage to the environment. That puts a premium on the issue of sequestration. Research is being done on that, and we are looking into a range of other areas, but as my hon. Friend said, renewables will also be a key component. We are not talking only about great wind turbines, whether offshore or onshore, but about microgeneration issues. He is right to talk about some of the innovative work that has been taking place on microgeneration and CHP. He drew attention to the innovative and laudable Woking initiative. The Government have been watching that with a great deal of care and are very engaged and interested in it.

We need to consider ways in which the generation of electricity can be more local and low-carbon. For that reason, as from this June, we shall set out a new consultation on how we develop a microgeneration strategy to move towards the sort of vision that my hon. Friend outlined. From my point of view, there is no reason why, certainly within our lifetimes and probably within about 20 years, most homes should not generate most of their energy themselves, whether through solar photovoltaic panels on the roof, perhaps coupled with a small wind turbine, or through something similar. There is every reason to believe that we can move towards energy being generated so locally that we are generating our own energy in our own homes. Whether we reach a stage at which no one has to pay an electricity bill, I cannot say, but it is not impossible that we will do so, and what we are talking about is not that far away—it will certainly happen well within our lifetimes.

We are now seeing the growth of new microgeneration industries, which we want to continue to encourage. Together with the microgeneration strategy, which we are developing, we shall also launch in June a new strategy to consider low-carbon homes. All the issues are linked. The question is how we develop the right planning regulations so that we can create new homes and new developments while ensuring that the expansion in housing in the coming decades does not damage the environment. We need to ensure that homes are more energy-efficient than they were in the past and that we encourage the development of better fuel sources. We must also recognise that the issue is not only about new housing. As my hon. Friend said, many of today's homes are fuel-inefficient. They do not have enough insulation or other ways to safeguard the energy and heating that they use. That is why the Government have placed burdens on a number of energy companies—we do not dispute that—to provide insulation and energy health checks for homes, as many companies are now doing.

In recent weeks, I have met chief executives and chairmen of energy companies to talk about how to address the key problem of fuel poverty, and how that can feed into the points that my hon. Friend raised about energy efficiency. We have reduced the number of people in fuel poverty—defined as those spending more than 10 per cent. of their income on fuel—from more

than 5 million to 2.25 million, if I remember the figures correctly off the top of my head. That is a massive achievement for the Government. However, electricity and gas prices have risen over the past year. That is partly because of changes on the UK continental shelf and the fact that our oil and gas supplies are starting to deplete—it will take 30 years, but we will become a net energy importer. We are importing more and are therefore dependent on broader energy markets. Our energy prices are rising, and that will probably bring about 200,000 people into fuel poverty in England alone over the next two years if we do nothing about it. The meetings with the energy companies were intended to try to do something about it.

The methods identified by my hon. Friend—ensuring that our homes are better insulated and that we reduce the amount of wasted energy—are precisely the ways to deal with fuel poverty. The fuel-poor can often switch suppliers or receive benefits to reduce their bills, but we must also address energy companies' beliefs that their future will be secured just by selling more energy. In the long term, they and we know that that will not be how they continue to make profits. We want them to make profits well into the future and still be around in 50 years' time, but we must change our approach to energy.

We must move away from the idea that all our energy will be generated in large power stations that are located in one or two parts of the country and pass energy along transmission lines. We will move towards more localised energy and more microgeneration, but we will also need large energy plants, and they must be less polluting and give out fewer carbon emissions. Energy companies must be able to operate in a market in which they can make money generating electricity.

There will always be a demand for more energy; even with an increase in energy efficiency there will be more demand because, I hope, we will become more prosperous. The problems are how to ensure that that energy is provided by renewables in a way that does not damage our environment, and how to ensure that companies can make profits by creating more energy-efficient homes. Initiatives such as the emissions trading scheme are important because they make companies consider ways to reduce emissions.

Alan Simpson : Will the Minister also consider granting renewables obligation certificates for microgeneration? That is how we will start to alter the market rules that favour precisely the developments that he is talking about.

*Mr. Mike O'Brien* : At exactly the same time as conducting our review of microgeneration and solar PV, we are considering how the renewables obligation operates and the issue of ROCs. We have a tremendous opportunity over the coming year to consider our whole energy strategy, ensure that we look after the interests not only of the consumer but of the environment, and produce an energy system that works for the whole country. My hon. Friend asked whether ROCs would be considered. The answer is yes, but we must be careful, because some ROCs are too big for microgeneration—we may need roc-ettes.