

British energy policy and markets

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The last twelve months have seen significant changes in both UK energy policy and UK energy markets. The combination has set major challenges for government, regulators, companies and customers. This article examines those changes and the British Energy Association's (BEA) response.

The introduction of the New Electricity Trading Arrangements (NETA) in March 2001 stimulated a fall of some 40 per cent in wholesale electricity prices in England and Wales. This fall enabled our electricity supply businesses to increase their retail margins, so that most companies with both generation and supply businesses have remained financially viable. Generating companies without this structural hedge or with long term contracts based on the old price regime, however, have come under extreme financial pressure. For example, TXU Europe became insolvent and British Energy has needed government financial support and has undergone major restructuring. The proposed introduction of NETA - like arrangements in Scotland, to result in a British electricity market, raises the possibility of similar pressures.

There is a widely held view that generation from any fuel source is uneconomic at recent market prices. Much old plant has been mothballed. Drax, Europe's largest coal fired power station, ceased receiving support from its US owners and is up for sale. About a quarter of UK generation is now in the hands of banks. In the face of this market pressure, virtually no new generation is being built. In particular, government targets for Combined Heat and Power build are under extreme pressure. As a result, many energy companies have appealed to the regulator - The Office of Gas and Electricity Markets (OFGEM) to revisit NETA. The regulator's view, however, has been that change and corporate failure are natural consequences of the market economy and that the responsibility lies with companies to adapt to the new market conditions.

A further consequence of the price path described above is that the 2000MW cross Channel link between England and France which, in the past, was almost exclusively used to import power into England is now exporting to France.

The upshot of the above, drawn into sharp relief by the heat wave in early August 2003, is that wholesale prices are now rising. Concerns are moving from what

to do with over-capacity towards ensuring that there is sufficient capacity in reserve to cope with 2003/4 Winter demand. For example, the National Grid said that it is 8000MW short for its safety margin. In response, forward prices for this year's winter baseload contracts have risen by 30 per cent.

It is against this background that the UK Government's Energy White Paper 'Our energy future - creating a low carbon economy' must be considered. The White Paper is designed to deal with the three major challenges that now confront the UK energy system. First, the challenge of climate change. CO₂ levels are rising faster than ever before. The scientific evidence is clear. The consequences of rising global temperatures could be devastating - not only in Britain, but even more so in developing countries where millions of people could face disease, hunger and flooding.

Second, the UK faces the challenge of its declining indigenous energy supplies. We already import nearly half the coal we use and will be a net importer of gas by 2006 and of oil by 2010. The forecast move from being an exporter to an importer of energy requires new approaches to reduce the risk of price fluctuations and political instability.

Third, there is a challenge of keeping our energy infrastructure up to date with changing technologies and needs. Much of this infrastructure will need to be updated over the next twenty years, particularly if there are far higher levels of renewable electricity and to accommodate gas imports.

The White Paper identifies four new goals for UK energy policy: cutting green house gas emissions; securing reliable energy supplies; maintaining competitive energy markets in the UK and beyond; and heating every home adequately and affordably.

The UK is on course to achieve its Kyoto commitment to reduce green house gas emissions by 12.5 per cent below 1990 levels by 2008-12. The White Paper makes a further commitment to cut UK carbon dioxide emissions by 60 per cent by about 2050, with real progress by 2020. These actions will, however, only affect climate change if they are part of a consistent international effort and a key objective of British foreign policy will be to secure ambitious international commitments to cutting CO₂ emissions. The UK expects to play a full part in the Europe wide carbon trading scheme, which is planned for 2005.

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The White Paper recognises that the cheapest way to tackle the energy goals is simply to use less energy but for this to make the necessary contribution, far more needs to be achieved in the future than has been achieved in the past. White Paper commitments include consulting on an expansion of the energy efficiency commitment; working with energy suppliers and with OFGEM to create an effective market in energy services; to bring forward to 2005 the revision of building regulations to achieve higher standards for efficiency, to work with other EU member states to agree higher standards for consumer and industrial appliances and to improve energy efficiency in government buildings and procurement.

Renewable electricity is a major plank of future policies. The UK introduced a Renewables Obligation in 2002 in order to assist delivery of its target of 10 per cent of electricity being produced by renewable means by 2010. The White Paper introduces a further aspiration to double renewables' share of electricity from that 2010 target by 2020. The means of achieving this include bringing spending on renewable energy projects up to £348 million over four years, representing £60 million in new money; streamlining the planning system; taking steps to improve access by renewable generators to the electricity networks; and setting out a new strategic framework for offshore wind.

Nuclear power, however, despite being a non CO₂ emitting source of generation, did not receive a boost from the White Paper. There are no proposals for building new nuclear power stations, pending resolving the economics of nuclear generation and issues of nuclear waste, although the possibility that at some point in the future new nuclear build might be necessary in order to meet carbon targets is admitted. Further no decision to build new nuclear power stations will be made without a full public consultation and publication of another White Paper.

The Government has reconfirmed its commitment to competitive energy markets welcoming the European Union's commitments to energy liberalisation for industrial customers by 2004 and overall by 2007.

The White Paper contains an aim that nobody in Britain should be living in fuel poverty by 2016/18. This will require action in homes through better insulation and heating systems and programmes are in place to achieve this.

The BEA welcomes the White Paper's four energy goals. We are pleased that it incorporates many of the recommendations that we made during the consultation process, especially in respect of encouraging energy efficiency, support for CHP, investing in innovation and support for development of a demonstration project for carbon dioxide capture and storage. The fact is, however, that the Government's ambition

for CO₂ reduction is stretching and the BEA is sceptical about it being achievable without a major contribution from nuclear generation.

Increasing the share of generation to be met by renewables raises further challenges. These include: dealing with low voltage connections to the distribution systems; making distribution systems, designed to 'move' electricity from high to low voltage, work 'both ways'; many renewable generating sets being of low capacity and low connection voltage; and bringing security standards up to date. The logistical implications of these challenges require urgent attention.

Of themselves, pure 'commodity style' markets do not provide sufficient incentives to invest in reserve margins. Producers only gain from reserve margins when there is a problem of capacity on the network. The system operator needs to be regulated and incentivised appropriately to ensure that there is sufficient reserve on the networks at a cost effective price. The need for capacity margins does, of course, apply both in the generation business and in the wires businesses. The owners of these businesses need a proper reward for investing in reserve. Pure market mechanisms are unlikely to deliver timely and appropriate price signals for necessary new investment or diversity. The answer, to achieve a sustainable electricity world, is to be found in partnership amongst government, regulators of all kinds and market participants.

The BEA welcomes the establishment of a Sustainable Energy Policy Network (SEPN) and the development of a small set of indicators to monitor delivery of energy objectives. The SEPN is led by a ministerial committee and will find cross Government solutions. It is operating in a publicly accessible way. Progress may be viewed at www.dti.gov.uk/energy/sepn.

One of the major requirements for the successful implementation of the White Paper is the availability of finance. The BEA has organised a series of meetings with financiers, chartered accountants and lawyers, together with government officials, in order to address these issues. The events described at the beginning of this article mean that the cost of capital is now likely to be higher, because of the greater risk involved with investing in UK power markets. Stability in both government policy and market structure is essential to reawakening the market's appetite to invest.

As a matter of urgency, all parties must work together to produce market rules and regulatory and governmental incentives, which are clear, cohesive and consistent. These must both endure and provide a transparent path achieving energy goals. Only then will practical action be taken and long term investment capital become available, so that the Energy White Paper's aspirations can become reality. A well functioning SEPN should deliver these results. **F**