

# Electricity Market Reform - Radical Proposals

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On 16 December 2010 the UK government published radical proposals for electricity market reform, which were billed as the most comprehensive reform of electricity markets since electricity privatisation in 1989. These proposals will be out for public consultation until Spring 2011 when it is anticipated that they will be taken forward in an Energy White Paper. Primary legislation would be taken forward from 2011 onwards, subject to the Parliamentary timetable, and in 2013/14 secondary legislation, codes and licences would be developed. The government states that its objectives are Security of Supply, Decarbonisation and Affordability. Despite cooperation with devolved administrations, Scotland in particular may introduce provisions with significant differences.

The context of these reforms is the coming together of a number of key factors. The UK needs to replace much (19GW) of its power generation capacity by 2020, with many nuclear and other power stations reaching the end of their operational life. Coal fired generation without Carbon Capture & Storage is becoming practically impossible as the Large Combustion Plants Directive (due to be replaced shortly by the Industrial Emissions Directive, on which we have prepared separate briefing) takes effect. The UK has signed up to binding legal commitments to increase the proportion of its power generation from renewables to 15% renewable energy consumption by 2020, which it now says translates to "around 30%" renewable penetration in the electricity market. In addition, the Climate Change Act 2008 commits the UK to 80% reductions in greenhouse gas emissions by 2050, relative to 1990 levels. The consultation papers talk about the need for the electricity sector to be "largely decarbonised during the 2030s".

Ironically, this will contribute to a surging demand for 'clean' electricity – the government estimates that demand could double by 2050 – as the shift from fossil fuels to electricity for heating and vehicles takes place. Overall, it seems to be agreed that, as Ofgem has estimated, there will be a need for up to £200 billion of investment in power generation over the next 10 years – equivalent, as Dr Paul Golby, CEO of E.ON has put it, to twenty Channel Tunnels. Chris Huhne, Secretary of State for Energy and Climate Change has said that of this

there is a need for £110 billion of investment for low carbon and secure sources such as renewables, nuclear, clean coal and gas. The difference between the two figures could be the need for investments in smart meters, gas transmission and distribution and renewable heat projects.

There is also the absolute need for security of supply, hence the emphasis on capacity payments and encouraging storage schemes. As Energy Minister Charles Hendry MP has said, if the lights go out, he will be the one on the Today programme discussing the circumstances of his dismissal.

In all of this, long term regulatory stability and investor confidence in a predictable rate of return are critically important. Most significant investments in UK energy infrastructure today would be made by international energy companies that have many options to invest elsewhere if the conditions are not right. The other aspect that cannot be taken for granted is consumer reactions as electricity prices rise significantly to pay for these reforms in the short and medium term.

The government seeks to address these issues in four main ways:

- Carbon price support
- Feed-in tariffs
- Capacity payments
- Emissions Performance Standard

We have set out below some of the key headline features of the reforms proposed. We will be preparing more detailed briefings to consider the implications of these reforms in more detail. For further information, please feel free to contact any member of our Energy and Environmental Law Team as featured at the end of this briefing.

## Carbon Price Floor

HM Treasury has put forward proposals for a floor price for carbon, supported by a carbon tax on fossil fuel use. The proposal is to introduce a carbon price support mechanism from 1 April 2013. This would be funded by applying the Climate Change Levy (CCL) and fuel duty on all fossil fuels

used to generate electricity in the UK. Current exemptions would be replaced by a tax on fossil fuel commodities at “CCL carbon price support rates”. There will be very important differences in the ways in which this applied to gas, coal, LPG, electricity and oil. Subject to consultation, these proposals would be included in the 2011 Finance Bill, and followed by more detailed secondary legislation. The government's preferred option is to introduce carbon price support rates at a different level from the main CCL rates and to increase them incrementally from 2013.

The central proposal is to remove existing CCL exemptions relating to fossil fuels used in UK electricity generation, and to reduce the amount of fuel duty that can be reclaimed when oil is used to generate electricity. The carbon price support mechanism would apply to all types of generators. This includes conventional fuel power stations, fossil fuel CHP stations and auto-generators fired by oil, solid fuel, LPG or gas. Some 1.4% of current UK electricity generation would for the first time pay a price for their carbon emissions. It is hoped to increase investment in new low-carbon capacity by up to 11 gigawatts by 2030.

Under these proposals:

- electricity used to generate further electricity would be exempt from CCL;
- CCL liability of electricity supplied to the final consumer from generation using fossil fuels, and the treatment of imported electricity, would be unchanged;
- fossil fuels used to generate electricity in the UK that was subsequently exported will be liable to carbon price support rates;
- all fossil fuels burnt in Combined Heat & Power ‘CHP’ stations will be subject to CCL or fuel duty at the relevant carbon price support rates: this will be controversial, but the government sees it as driving investment towards renewable CHP, and argues that fossil fuel CHP enjoys other advantages;
- supplies to fossil fuels to auto-generators (those generating for their own operations) will continue to be liable to CCL and fuel duty at carbon price support rates (without the possibility of reclaims);
- the government aims (subject to EU state aid agreement) to introduce partial relief from CCL for fossil fuels used in Carbon Capture & Storage ‘CCS’ plants.

The rationale for the measures is that low-carbon technologies have lower operating costs but much higher up-front capital costs, so total costs per megawatt hour are more expensive than conventional generation. Some low-carbon technologies have yet to be built on a commercial scale and therefore have added uncertainties which increase investment risk. To make large investment decisions in low-carbon generation capacity, investors need some certainty on future revenues. Carbon price

certainty is particularly important given the long life of low-carbon investments.

In the short to medium term, the government accepts that supporting the carbon price will have a knock-on effect on the wholesale electricity price, which is likely to increase retail electricity prices. The government argues that electricity prices would rise even higher in the long term if the UK continues to rely upon fossil fuels for power generation. However, the shorter term impacts on poor households in particular are not insignificant. The impact assessment for the price proposals estimates, for example that in 2016, depending upon which scenario is applied, fuel poverty could increase in between 20,000 and 225,000 households. Public acceptance should not be taken for granted.

### Feed-in tariffs

Revisions to the Feed-in Tariffs available would guarantee a higher return for power generators than is available in the market for the provision of electricity from low carbon sources, and new, revised and enhanced Feed-in Tariffs ‘FITs’ are likely to be introduced for low carbon in 2013/14, subject to the passage of legislation. FITs are supposed to provide greater certainty on future revenues to investors than the current Renewables Obligation, which should allow investors to borrow money at a lower cost of capital.

The UK has been criticised as being much slower than some other countries to adopt Feed-in Tariffs as a mechanism to promote renewable energy (although the old NFFO contracts were akin to this). Even where it has done so for small scale generation, its efforts have generated controversy, notably in the arguments over Field Solar arrays in late 2010. Having promoted Feed-in Tariffs heavily as a means to encourage householders and small generators to fit solar panels, when small scale generators started making significant investments in schemes just under the 5MW threshold, the government became concerned that this would rapidly use up the available limited budget for the scheme secured under the Comprehensive Spending Review.

However, the government now proposes a FIT for large-scale low-carbon generation its preference among different options being for a FIT based on a Contract for Difference. Under this system, generators sell their electricity into the market, then receive a top-up payment (or they may have to repay revenues). The top-up payment or repayment is calculated as, for example, the difference between the average market wholesale price and the agreed tariff level. Other forms of FIT being considered (not dealt with here) are Premium FITs (the most likely alternative to Contracts for Difference) and Fixed FITs. The government would like to investigate auctions or tenders as a means of setting the price of support for technologies or projects, as an alternative to a price set by government.

The revised Feed-in Tariffs would benefit all forms of low-carbon

investment, including nuclear, which has led the government to reiterate the commitment in the Coalition agreement that there should be no direct subsidy of new nuclear, a claim challenged by some NGOs.

### Renewables obligation reforms

The Renewables Obligation provides renewable energy generators with certificates which suppliers can buy to meet their obligation to demonstrate sourcing from renewable sources.

On 8 December 2010 Energy Minister Charles Hendry announced that the timetable for the 2013 Review of 'banding' for the Renewables Obligation was to be speeded up. New banding proposals indicating differential levels of support for different technologies will now be the subject of consultation in Summer 2011, confirmed in Autumn 2011 and coming into effect on 1 April 2013 (1 April 2014 for offshore wind) if approved by Parliament and EU state aids authorities.

In the proposals announced on 16 December 2010, the government recognised the need to minimise uncertainty and delays to investments by establishing appropriate 'grandfathering' arrangements, but indicated a preference of moving to the introduction of wider Feed-in Tariffs from 2013, but also continuing accreditation under the Renewables Obligation until 2017. The Renewables Obligation would close to new accreditation from 1 April 2017. It would continue to operate after that date for existing schemes. Transition from the Renewables Obligation to wider reliance upon Feed-in Tariffs will be one of the most closely watched and critically important elements of the whole package, and if investor confidence in the outcome is damaged, the credibility of the whole package could suffer.

A 'Low Carbon Obligation' proposed by some generators would be a form of continuation of the Renewables Obligation, But would effectively extend a similar structure and system to nuclear and Carbon Capture & Storage. The government does not currently favour this option, which it thinks would favour larger energy companies rather than new entrants.

### Emissions Performance Standard

The government proposes an Emissions Performance Standard 'EPS' for new power stations. Effectively this is an announcement of the permitted amount of CO<sub>2</sub> emissions that will be tolerated, intended to leave some flexibility with the power generator as to the means by which this is to be achieved. It would be set at a level which made it impossible to commission new coal fired power stations without their being fitted with Carbon Capture & Storage, which the government strongly supports by other means and measures. The measure is described as a "regulatory backstop".

Originally it was envisaged that new gas plants would be subject

to similar restrictions, but it now appears that they will escape from the full potential impact of these measures, at least initially. This is relevant to the possible inclusion of a gas fired plant demonstrating the application to Carbon Capture & Storage 'CCS' in the government's proposed second, third and fourth CCS competitions. Instead, the government's present preference is to 'grandfather' the EPS at the point of consent for new gas-fired power stations, which in practice means that gas plant consented while the EPS is at a level that does not affect their operation will not be subject to a tighter level during their economic life.

### Capacity mechanism for generators

The proposals include the means to pay capacity payments to power generators for building surplus power generation capacity that will contribute to national security of supply, even if it stands idle for some of the time. The proposals are thought to be of most immediate impact on gas fired generation in the short term. As an alternative, the National Grid could be given powers to commission back-up generation.

Chris Huhne has made it clear that capacity payments would also cover imports of electricity from European countries, or could take the form of agreed commitments to reduce demand at times of peak demand or intermittent supply. Capacity payments could also cover some forms of energy storage schemes such as water turbine schemes.

After reviewing a range of options, the government's present preferences are for:

- a centralised system (i.e. an obligation on a single central body rather than a decentralised system);
- an approach in which volume is set rather than the price of capacity;
- a targeted approach, rather than offering payments to all generators.

### Regulatory reform at OFGEM

As part of the radical reforms announced, the government proposes significant reforms of the electricity market regulator Ofgem "to ensure that it remains an effective, independent economic regulator".

It also laid emphasis on the importance of Ofgem's review of the liquidity of the electricity wholesale market, which includes as options developing one or more of these measures:

- obligations requiring large generators to trade with small/independent supplies;
- market making arrangements;
- mandatory auctions of generation;
- self-supply restrictions.

## Energy White Paper

It is very clear that the Energy White Paper in Spring 2011 will be a key document for all those involved in the power generation industry in establishing the direction of travel for future regulatory policy. We expect to be dealing with many aspects of the policies in this White Paper as the present proposals are developed in response to consultation.

## Energy Bill

We have been very active in participating in the development of the 'Green Deal' which is at the heart of the Energy Bill published in December 2010. Under these proposals householders would

be able to look for support towards the up-front costs of energy efficiency measures such as home insulation, with the costs being recovered gradually through energy bills. Michael Barlow, Partner, chaired the legal working group of the UK Green Building Council's Task Group looking at the Pay As You Save scheme on which the Green Deal is based. We will continue to monitor other aspects of the Bill.

For further information on these issues please contact any member of our Energy and Environmental Projects Team, including:



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