



ENERGY BULLETIN

RENEWABLE ENERGY - CENTRALISED ELECTRICITY

This is one of a series of Bulletins looking at issues considered in the Renewable Energy Strategy Consultation (the "Consultation") published on 26 June 2008.

Other Bulletins in this series already published or due out shortly cover:

- Renewable Heat
- Decentralised Energy
- Energy Efficiency
- Transport
- Bioenergy

Today, around 5% of the UK's electricity demand is met from renewable sources. The EU has committed to a challenging target of 20% of energy usage to be derived from renewable sources by 2020 and the UK's share of this obligation is likely to be 15%. This could mean that more than one third of our electricity requirements will have to come from renewable sources.

At present, our renewable electricity comes mainly from biomass, hydro and wind (offshore and onshore). The major growth area will be wind, both onshore and offshore. In relation to offshore wind, there is some debate about what an achievable target would be. Figures range from 14 to 18GW by 2020 and BERR is undertaking a Strategic Environmental Assessment to

determine whether 33GW would be achievable by 2030. Currently 8GW is planned. Estimates for the amount of onshore wind generation required to meet a 1/3 electricity target range from 13 to 14GW.

Getting to this level of renewable electricity when starting at such a low base and within a tight timeframe is challenging to say the least. The planning, financial and supply bases all have to be in place. Also the physical systems for transmitting the electricity to the user need to be robust and able to manage the new demands placed by renewable generation, not least, the intermittent nature of wind power.

Planning

Some of the difficulties in the planning

system are being addressed through the Planning Bill and the Marine Bill, in particular through the introduction of an Infrastructure Planning Commission ("IPC") to determine applications for offshore wind above 100MW and onshore wind above 50MW. The IPC will be required to make decisions within tighter timeframes than currently apply and on the basis of a new National Policy Statement for renewables. Whilst this is a move in the right direction, some are already querying whether the 100 and 50MW limits are too high.

The Consultation asks for views on a range of possible initiatives in the planning arena, including the creation of an expert body to assist local planners and developers, the imposition of a Community Infrastructure Levy (as raised in the Planning Bill) and





other mechanisms for ensuring that local communities benefit from community energy assets.

Financial

The economic viability of renewables projects can turn on the level of financial support given, particularly to new technologies. The Renewables Obligation ("RO") is the major form of support in the UK. In the 2007 Energy White Paper the Government announced that it would reform the RO to give more support to emerging technologies. The so called "banding" is currently under consultation. In relation to wind power, the proposal is that onshore wind will continue to attract 1 renewables obligation certificate ("ROC") per MWh but offshore wind will attract 1.5 ROCs per MWh. Less commercialised technologies such as anaerobic digestion and certain biomass technologies will attract 2 ROCs per MWh whilst established technologies will attract less than 1. This banding should stimulate

investment in the areas which are likely to make the greatest impact but which are currently financially uncompetitive.

Supply chain

Constraints within the supply chain are another major barrier to the increased development of renewable generation in the UK. In the wind energy sector, the key problems are a shortage of wind turbines and of appropriate barges for offshore work. A more robust approach to renewables which demonstrates long term commitment to measures being put in place, particularly the banding of the RO, should give investors in these type of supply businesses the confidence to invest to meet the demands that will be placed on the supply chain in seeking to meet the renewables target. The renewables targets are a huge opportunity for UK PLC, with an estimated 160,000 jobs to be created in the renewables industry by 2020 and an estimated overall required investment of £100bn.

Grid

Grid connection is a major issue that will be addressed through the work being carried out in follow up to the Transmission Access Review Final Report (please click [here](#)) and the actions being taken by National Grid (please click [here](#) to see recent open letter).

National Grid will face challenges in its role as the system operator, particularly in relation to the balancing of the system, as more renewable generation comes on stream. This is a particular problem in relation to wind projects which have a relatively low base load and high levels of intermittent generation. The introduction of smart metering and the potential to charge electric vehicles overnight should help to ease the peaks and troughs in demand but nevertheless there will be a need for conventional back-up generation, which will need to be "carbon capture ready".

Summary

There is a real momentum now behind the renewables targets and once the current consultations are over, the Renewable Energy Strategy is published early next year and the reforms to the RO come into effect in April 2009, the number of renewable energy projects coming to the market should increase significantly.

This Bulletin aims to update you on legal issues of concern or interest. It is not a substitute for taking specialist advice in individual cases.

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