Clue: A major city

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Wind, tide and gas: the new face of power

More on	— Mark Milner, industrial editor The Guardian, Friday January 11 2008
Environment Nuclear power Renewable energy Alternative energy	The energy bill goes beyond plans to escalate nuclear power and also contains measures to encourage electricity generation from a wider range of renewable sources, changes to the rules governing the import and storage of gas and legislation to provide the framework for the storage of carbon dioxide emitted by fossil fuel-fired power stations. Renewables
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UK news	The energy bill contains plans to change the renewable obligations regime, which provides support for the development of renewable energy. The

The energy bill contains plans to change the renewable obligations regime, which provides support for the development of renewable energy. The renewable obligations regime works by requiring energy suppliers to source more of their electricity from renewable sources and the bill aims to switch the focus of support towards technologies such as offshore wind and tidal generation.

Carbon capture and storage

The government is already backing a trial programme for the commercial development of carbon capture and storage (CCS), which allows the carbon dioxide emitted from fossil-fuel fired power stations to be captured and then stored, rather than allowed to escape into the atmosphere.

CCS is seen as a key technology for the UK because of the proximity of depleted oil and gas fields in the North Sea which are suitable for storing captured carbon dioxide. However the trial cannot go ahead without new legislation.

Gas imports

Britain imports around 10% of the gas it needs but the figure could rise to 80% by 2020 as production from the North Sea declines. The government is proposing legislation to cover offshore storage, which is becoming more important as North Sea supplies decline, as well as laying out the rules for the offshore unloading of liquefied natural gas. The government acknowledges that without investment in new storage and import facilities Britain risks shortages that could feed through into higher prices and an increased possibility of interruptions to supply.

Offshore wind farms and tidal power

The government has previously pledged to develop more offshore wind farms and the energy bill lays out the framework for the construction of electricity generated by offshore renewable sources.

The proposed new regime envisages the transmission networks would be owned and operated separately from the offshore generating assets. The energy industry regulator, Ofgem, is to be given powers to run auctions for the right to build and run the transmission networks, with the government estimating that around £2.5bn worth of investment will be required to connect planned offshore wind farms to the electricity grid.

Decommissioning

Though much of the legislation is designed to cover new developments, the bill also looks at ways of ensuring that oil and gas fields in the North Sea which have reached the end of their useful lives are properly decommissioned. There are currently about 500 oil and gas installations in the British sector of the North Sea and more than 6,000 miles of pipeline, with the total cost of decommissioning put at between £15bn and £19bn. Looking further ahead the government is also laying down the rules covering the decommissioning of offshore renewable energy facilities when they become redundant.

Other measures

The Health and Safety Executive will take over regulatory responsibility for electricity safety, and responsibility for the standards and accuracy of gas and electricity meters will be switched from Ofgem to the National Weights and Measures Laboratory.

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