



House of Commons
Energy and Climate Change
Committee

**Low carbon
technologies in a green
economy**

Fourth Report of Session 2009–10

Volume I



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Report, together with formal minutes

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The Energy and Climate Change Committee

The Energy and Climate Change Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department of Energy and Climate Change and associated public bodies.

Current membership

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Mr David Anderson MP (*Labour, Blaydon*)
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The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No 152. These are available on the Internet via www.parliament.uk.

Publication

The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at www.parliament.uk/ecc. A list of Reports of the Committee in the present Parliament is at the back of this volume.

Committee staff

The current staff of the Committee are Tom Goldsmith (Clerk), Robert Cope (Second Clerk), Farrah Bhatti (Committee Specialist), Francene Graham (Senior Committee Assistant), Jonathan Olivier Wright (Committee Assistant), Steven Everett (Committee Support Assistant), Estelita Manalo (Office Support Assistant), and Hannah Pearce (Media Officer).

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Summary

Low carbon technologies have a vital role to play in the move towards a green economy. Such technologies have the potential to reduce the carbon intensity of processes at every stage of the energy supply chain—from low carbon energy generation, through storage and transmission, to end user efficiency. In doing so, carbon dioxide emissions will be reduced, jobs will be created, and the UK economy will grow sustainably.

The Government's green stimulus over the past year amounts to approximately £1.4 billion. Disappointment with the level of funds committed to green initiatives was expressed almost universally by the witnesses we spoke to during this inquiry. In particular, it was argued that the Government should have done more to support energy efficiency, an area that is amongst the lowest cost options for reducing carbon dioxide emissions. Energy efficiency measures can be implemented through the installation of a number of existing technologies such as cavity wall and loft insulation, double glazing, and on-site microgeneration. The nature of this work is local, and as such there is scope for the rapid creation of local green jobs in every community across the UK in the energy efficiency and building technologies sector. Whilst we recognise that the Government is moving in the right direction, notably through its recent publication of *Warm Homes, Greener Homes, A Strategy for Household Energy Management*, it must tackle energy efficiency more aggressively—not just for the sake of UK emissions reduction targets but also for the sake of stimulating growth in local jobs and the economy.

Widespread deployment of low carbon energy generation technologies has the potential to create new jobs whilst reducing UK reliance on imported fossil fuels and thereby improving energy security. The growth of offshore wind and marine energy could revitalise manufacturing in the UK, whilst providing jobs for reskilled workers from the oil and gas sector. The UK wind industry employed 87,500 people in 2007/08. Based on forecast growth in domestic market value, this could potentially rise to 156,800 in 2014/15. The UK has substantial wave and tidal resources and therefore marine energy is a natural low carbon choice for the UK. However, given that the marine sector is at a much earlier stage of development, the creation of a significant number of jobs in this sector is not expected in the short term. Other technology sectors such as solar, biomass and geothermal also have an important role to play in the green economy. Whilst it is right that public investment is prioritised for low carbon technologies that are economically viable today, the Government must also support tomorrow's technologies through wider policy mechanisms.

Despite the obvious benefits of low carbon energy, obtaining planning permission and public acceptance for new energy generation plants and wider infrastructure—such as wind farms, new nuclear build, CO₂ pipelines for plants fitted with carbon capture and storage technology and transmissions lines—remains a problem. We comment on the planning process in England and Wales in greater detail in our Report, *the proposals for national policy statements on energy*. There is a need for much better dialogue with the general public to promote low carbon energy generation and related infrastructure. Furthermore, the Government must engage with the public on the benefits of a smarter system for interacting with energy. Smart meters will be installed in every home by 2020. In the future, through smart communication technologies, these meters will be able to interact with the grid, household appliances and electric vehicles—allowing consumers to become much more energy efficient, taking control of how and when energy is used.

The development of low carbon technologies will require a significant degree of support from both the public and private sector; however, they have the potential to make a very significant contribution to economic growth and job creation in the UK. The global market value within the low carbon and environmental goods and services sector was £3,046 billion in 2007/8, of which the UK share was 3.5%, or £106.7 billion. There were 881,000 so-called ‘green jobs’ within the UK in 2007/08; this could potentially grow to over 1.27 million jobs by 2015. Investment in low carbon technologies must not simply be seen as part of the short-term economic recovery, but also as a means of encouraging sustainable economic growth over the decades to come.

