

UK needs to achieve a step change in its pace of emissions reduction to meet carbon budgets

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The first annual report to Parliament by the Committee on Climate Change (CCC), published today, concludes that a step change is required in the pace of UK emissions reduction to meet carbon budgets, and that in some areas, new policy approaches will be required to deliver the Government's Low Carbon Transition Plan.

The Climate Change Act requires the Committee to report each year on emissions reductions relative to the UK's carbon budgets. Complete sets of emissions data are not yet available for the initial year (2008) of the first budget. In this first monitoring report, the Committee has therefore focused on analysing progress in the years running up to the first budget period, understanding the impact of the recession on emissions, and identifying leading indicators (e.g. investments or policies which need to be in place) which the Committee will track to ensure early warning of future possible under-achievement versus budget.

Key findings are that:

- In the 5 years 2003-2007, emissions reductions averaged 0.5% per annum: going forward, reductions of 2-3%pa will be required to meet the carbon budgets. A step change in the pace of reduction is needed.
- Declining economic activity is likely to have produced an emissions cut of around 2% in 2008, and recession could reduce emissions in the first budget period by a total of 40-70 million tonnes. But recession induced reductions must not be confused with underlying progress, which could be undermined by a recession induced fall in the carbon price. The UK should now aim to overachieve emissions reductions in the first budget period.

Analysis of the actions needed to ensure delivery of the first three carbon budgets, suggests a need to revise or strengthen policy in 3 particular areas.

Electricity Generation

Rapid decarbonisation of electricity generation is a crucial priority, and scenarios to achieve a reduction in grams per kWh from today's 540g CO₂/kWh to less than 300g CO₂/kWh in 2020, could include 23 GW of new wind capacity, up to 3 new nuclear stations and up to 4 CCS demonstration plants by 2016.

The report suggests, however, that current electricity market arrangements together with the EU ETS trading scheme are unlikely to deliver required sector decarbonisation, and would instead lead to increasing dependence on imported gas. The Committee therefore calls on the Government to undertake a review of alternative arrangements to reduce investor risks and ensure delivery of investment in low-carbon technologies. Options to be considered include carbon price strengthening, providing more certainty on the price paid for low-carbon generation (e.g. through feed-in tariffs), and ensuring low-carbon investment (e.g. through a low-carbon obligation or emissions performance standard).

Progress on CCS demonstration plants is vital to assess whether CCS will be a viable technology to achieve further decarbonisation in the 2020s. The Committee reiterates its previous recommendation that there can be no role for conventional coal generation in the UK beyond the early 2020s.

Residential and commercial buildings

Energy efficiency in homes could be improved by 35% by 2020 with an ambitious program of improved insulation (e.g. covering 10 million lofts, 7 million cavity walls and 2 million solid walls), the installation of 12 million energy efficient condensing boilers, and major improvements in electrical appliance efficiency.

But achieving this program is likely to require a shift from the existing Carbon Emissions Reduction Target (CERT) approach in which electricity companies meet their supplier obligation through specific measures (e.g. the supply of energy efficient

light bulbs). Whole house approaches (simultaneously implementing the full range of measures) and street-by-street approaches involving local government and energy companies within a strategy defined by national Government are likely to be required.

For commercial and public buildings, a key policy initiative commencing in April 2010 will be the Carbon Reduction Commitment. The Committee will advise in 2010 on the future trajectory of caps under this system. This policy should however be buttressed by:

- Roll-out of Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs)
- A commitment that the public sector will implement all cost-effective measures to improve energy-efficiency by 2018.
- A policy to ensure that all SME's should achieve a minimum EPC rating of 'F' or higher by 2020.

Road transport

As outlined in the Committee's first report in December 2008, road transport emissions need to be reduced via a combination of efficiency improvements (reductions in grams per km) and measures which will constrain growth in traffic volumes: emission cuts of 30% by 2020 are possible.

The Committee reiterates its belief that the carbon-efficiency of new cars can and should be reduced from above 160g/km today to 95g/km by 2020. This reduction could be achieved by improvements to fuel efficiency on conventional cars, but further reductions beyond 2020 will require a significant role for electric cars.

Manufacturer announcements of electric car initiatives have progressed even more rapidly than the Committee envisaged, and significant progress on battery cost reduction continues.

But to ensure rapid progress, two new mutually reinforcing government policies are required: Support for new car purchase to drive initial volumes and help manufacturers achieve economies of scale; and support for battery charging infrastructure.

In a world where carbon budgets are achieved we will meet more of our energy needs from low-carbon power, live in well insulated homes with energy efficient boilers and appliances; we will also work in energy efficient offices and drive more carbon efficient cars including hybrids and electric vehicles. Taking action will also improve the security of energy supply and air quality.

Lord Turner, Chair of the CCC said:

“With the carbon budgets in place, we now need to achieve a step change in the pace of emissions reduction. The Government needs to build on its “Low Carbon Transition Plan” and put in place a comprehensive delivery framework. What we have proposed is achievable and affordable but action needs to be taken now if we are to make our contribution to combating climate change.”

ENDS

Notes to Editors

Committee on Climate Change (CCC)

The Committee on Climate Change (CCC) is an independent body established under the Climate Change Act to advise the UK Government on setting carbon budgets, and to report to Parliament on the progress made in reducing greenhouse gas emissions.

Web address: www.theccc.org.uk/

- ***Meeting carbon budgets – the need for a step change*** - published 12 October 2009 - is the CCC's first annual report to Parliament on the progress made by Government in reducing emissions.
- The report assesses progress that has been made by Government in reducing emissions over recent years and analyses the impact of the recession on efforts to tackle climate change. It also looks in detail at what action needs to be taken in order to significantly reduce emissions of GHGs in the power sector, transport, heat and buildings & industry, and sets out a series of indicators by which the CCC will monitor and measure Government's progress in future.
- It is available to download from: www.theccc.org.uk/reports

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