The UK Low Carbon Transition Plan: does it go far enough?

Tim Foxon argues that, although the government's latest plans for a low carbon economy are an important step forward, they are hampered by an ideological belief in market solutions.

In the months running up to the Copenhagen climate negotiations, the UK government outlined a series of measures – notably the UK Low Carbon Transition Plan – to provide a framework for the reduction in the country's greenhouse gas (GHG) emissions. However, there remains a large gap between national efforts and the activities needed for the UK to deliver its fair share in bringing about the reductions required to avoid 'dangerous' climate change.

The framework for international action is set by the UN Framework Convention on Climate Change[1] (UNFCCC), which was agreed by 154 countries at the Rio Earth Summit in 1992. This committed nations to "stabilise atmospheric concentrations of greenhouse gases (GHGs) at a level that avoids dangerous anthropogenic interference in the climate system" and set the scene for richer, industrialised countries to act first.

Under the Kyoto Protocol to the Convention, established in 1997, industrialised countries agreed to an average 5% reduction in GHG emissions relative to 1990 by 2008-12. However with only a broad agreement – the Copenhagen Accord – reached in December 2009, a detailed international framework for action after 2012 has yet to be determined.

Based on the scientific consensus, the world's governments generally accept that action should be taken to prevent a rise in global temperature of more than 2°C above pre-industrial levels to avoid the most serious impacts of climate change. However, this target is extremely ambitious. For even a 50% chance of remaining close to a 2°C rise by 2100, global emissions need to peak by 2016 and then reduce by 3-4% every year from then.[2]

This implies that by 2050 global emissions must halve and the UK must cut its emissions by 80% (the UK's legally-binding target as set in the 2008 Climate Change Act). While the UK is on track to achieve its Kyoto target, this is largely thanks to the switch from coal- to gas-fired electricity generation in the 1990s; the target for 2050 is far more challenging.

As its first step, the government has established the interim target of a 34% reduction by 2020, the less ambitious target recommended by the Committee on Climate Change. In July 2009 it published the UK Low Carbon Transition Plan[3] for meeting this target.

The plan commits the UK to generating 40% of its electricity from low carbon sources by 2020. The routes include finding 30% from renewables, funding up to four demonstration plants for carbon capture and storage and facilitating the building of new nuclear power stations, as well as improving the energy efficiency of existing households and businesses and bringing in zero-carbon regulations for new homes.

The plan also outlines ambitions to make the UK a centre of green industry, promising £120 million investment in offshore wind and £60 million in marine energy, though many have argued that this needs to be orders of magnitude higher.

To achieve the 30% renewable electricity target, the Renewables Obligation for large-scale generation is being extended and new 'feed-in tariffs' for small-scale electricity generation (which SGR helped to lobby for) are to be introduced. The Renewable Energy Strategy also has targets for 12% renewable heat generation and 10% of transport energy from renewables.

Whilst most of these measures are laudable, the government remains hampered by an ideological belief in market solutions. These often have unintended consequences and can be manipulated by powerful market actors. One such solution is the European Emissions Trading Scheme, a cap-and-trade scheme covering around 40% of European emissions. Because the caps for the first trading period were set too high, allowances were largely given away for free, leading to a collapse in permit prices in early 2007 and windfall profits for electricity generators.[4] The 2009 recession caused another a reduction in permit prices. Similarly, the UK Renewables Obligation has provided little support for early-stage and small-scale renewables. Uncertainties remain about whether the new feed-in tariffs will provide sufficient incentives.

In its latest report, the Climate Change Committee argues that efforts in recent years have not been sufficient for the UK to achieve the annual reductions needed (1.7-2.6%) to meet its interim targets by 2020.[5] In particular, the committee argues for a step-change, focussing on changes in electricity market rules to encourage investment in low-carbon generation; more support for energy efficiency improvements on a 'whole house' and 'street-by-street' basis; and support for the roll-out of 1.7 million electric cars and plug-in hybrids by 2020.

The scale of the challenge demands something like the 'Green New Deal',[6] proposed by a group of UK economists and environmental experts to address the linked financial, energy and climate crunches. This proposes a £50 billion programme of investment in energy efficiency and local renewable electricity generation; training a 'carbon army' of workers; establishing an 'oil legacy fund' paid for by windfall taxes on oil and gas company profits; and re-regulating the domestic financial system so that money is created at low interest rates and lending is more tightly controlled. Greater support for renewables and associated infrastructure development could be provided as part of the financial programme.

Continued pressure from green groups and civil society actors is needed to ensure that all sectors of the economy, including domestic consumers, contribute to the change in attitudes and actions needed to achieve the required emissions cuts.

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Notes and references

1. Full texts of the UNFCCC and Kyoto Protocol can be found on the official website: http://unfccc.int/
2. Committee on Climate Change (2008). Building a low-carbon economy - the UK's contribution to tackling climate change. First Report, p.21. http://www.theccc.org.uk/reports
3. DECC (2009). The UK Low Carbon Transition Plan. Department for Energy and Climate Change. http://www.decc.gov.uk/
4. Carbon Trust (2008). Cutting Carbon in Europe: The 2020 plans and the future of the EU ETS. Carbon Trust, London http://www.carbontrust.co.uk/climatechange/policy/eu_ets.htm
5. Committee on Climate Change (2009). Meeting Carbon Budgets - the need for a step change. First Annual Progress Report. http://www.theccc.org.uk/reports/progress-reports
6. Green New Deal Group (2008). A Green New Deal. New Economics Foundation. http://www.neweconomics.org/publications/a-green-new-deal