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The Climate Change Act 2008 - will it do the trick?

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Buried at the heart of a banquet for bureaucrats, of targets, budgets, and reporting requirements which together make up the first two Parts of the Climate Change Act, lies an old fashioned, some would say British, aspiration to do the right thing. Pragmatism is also part of it, as perhaps is recognised by the Climate Change Committee ("CCC')[1] when they say, "It is difficult to imagine a global deal which allows developed countries to have emissions *per capita* in 2050 which are significantly above a sustainable global average.'

So, what is "a sustainable global average'? At the time of writing there is a general consensus that:

Climate change resulting from CO 2 and other greenhouse gas emissions poses a huge threat to human welfare. To contain that threat the world needs to cut emissions by about 50% by 2050, and to start cutting emissions now. A global agreement to take action is vital. But a global agreement will not be possible unless the countries of the rich, developed world provide leadership.[2]

It is in that context that the ambitious targets within the Climate Change Act are adopted by the UK.

2009 is a crucial year for treaty making, culminating in the United Nations Climate Change Conference in Copenhagen in December. There, it is hoped, an agreement to govern global emissions reductions from 2013 will be reached. The importance of a global deal to replace Kyoto is underlined by the fact that the European Union is committed to reducing greenhouse gas emissions by 30 per cent of 1990 levels in 2020 in the context of a global deal, but by only 20 per cent in its absence. The CCC took the same approach - ***Env. L. Rev. 117*** making the more ambitious "intended' budgets it recommends conditional upon achieving a global deal.

The principal duty within the Act applies to whoever may be Secretary of State in 2050. He or she is to be subject to a statutory duty to "ensure that the net UK carbon account for the year 2050 is at least 80 per cent lower than the 1990 baseline' (s. 1). Any law student could tell Government that a duty of this kind is simply unenforceable but, as Ministers insisted during the Bill's passage through Parliament, they might just be missing the point. The Government's objective in setting this statutory target[3] is to give greater certainty as to the scale of change required than could be achieved by more traditional means. In doing so they seek international credibility for the UK in treaty negotiations, and domestically the platform for a gear change in policy formulation. The Act is generally a tighter and more robust series of measures designed to achieve the target than the Bill suggested it would be; for example, it includes all greenhouse gases within the net UK carbon account (s. 24), and requires the Secretary of State to limit the use of international carbon credits[4] (s. 11).

The Government already have to set out in some detail what they are doing to meet the various emissions reductions targets already in place (and how successful their policies have been in relation to those targets);[5] and the CCC's first statutory report[6] gave a clear steer to the Government on future strategy and policy. There are three broad areas of influence available:

a) Information and encouragement to business and individuals to make more energyefficient choices -

from the things they buy to the waste they dispose of, for example the "Act on CO_2 ' campaign.

b) Financial incentives to reduce emissions which include

a. Carbon trading (for example the EU Emissions Trading Scheme). Carbon trading is a central plank of the UK strategy and the EU Emissions Trading Scheme is only the beginning. Part IV of the Climate Change Act empowers the Secretary of State to introduce carbon trading schemes in Regulations. The Carbon Reduction Commitment,[7] for example, will include both businesses and public sector organisations[8] and is expected to generate annual savings of 4mtCO_2 by 2020.

b. Taxes such as the Climate Change Levy, introduced in 2001, a tax on the use of energy which is said to be on course to deliver annual savings of 12.8mtCO_2 by 2010.

c. Subsidies to promote activities which reduce energy demand or support lowcarbon sources of energy, such as the Bioenergy Capital Grants Scheme which is funded by the Environmental Transformation Fund.

c) Direct regulation of activity, for example the Renewables Obligation.[9]

Env. L. Rev. 118 d) The Carbon Accounting Regulations came into force on 31 May 2009 (SI 2009, No. 1257). They define carbon units (see s 26) and how they may be taken into account in order to calculate the net UK carbon account from the figure for net UK emissions established as described above. They also permit grenhouse gas allowances (for example within a cap and trade scheme) to act as credits, subject to the limit set by the Secretary of State under section 11 (found at Regulation 3 of the Definitions Order[10] referred to below). The net UK carbon account is therefore related to, but not the same as, net UK emissions.

The target underpinning the s. 1 duty achieves nothing in and of itself, although no doubt there are negotiators preparing for the talks in Copenhagen who say it is helpful that the UK has set out its stall in legislation in this way. Instead, each of the areas of influence I have identified will remain part of the course charted by Government into a low carbon future. In order to assess and advise their clients on both current and future Government initiatives of every sort, I believe environmental lawyers need to understand in detail the s. 1 duty which in turn requires an understanding of the net UK carbon account and the process of carbon accounting introduced by the Act. It is these concepts that I have made the principal focus of this article.

THE NET UK CARBON ACCOUNT

This artificial and abstract accounting concept is defined by s. 27 of the Act. The Net UK Carbon Account is expressed in million tonnes of CO_2 and by reference to a specific period (for example a year, or a five-year budget period). It is nevertheless important to understand that

a) although it is expressed in CO_2 the account represents the aggregate of all targeted greenhouse gas emissions (as defined in s. 24). The practice of converting emissions of, for example, methane to their CO_2 equivalent ("CO_2 e') is well developed and not controversial.

b) It is an account which is *reduced* by credits: the lower the account for a given period the lower the number of emissions. To put it another way, the lower the better.

c) The Carbon Account is calculated by reference, first, to "net UK emissions' which are defined in s. 29 and exclude emissions from international aviation and shipping unless they are specifically included in Regulations (s. 30). The CCC recognises "complexities that currently make it difficult sensibly to allocate international emissions to the national level' and recommends that carbon budgets (and by implication the Net UK Carbon Account) should exclude them for the time being, while keeping that recommendation under review.

d) Regulations will define carbon units (see s. 26) and how they may be taken into account in order to calculate the Net UK Carbon Account from the figure for net UK emissions established as described above. These Regulations may, for example, permit greenhouse gas allowances (for example within a cap and trade scheme) to act as credits, but will be subject to a limit set by the Secretary of State under s. 11. The Net UK Carbon Account is therefore related to, but not the same as, net UK emissions.

Env. L. Rev. 119 THE CARBON BUDGET

A series of five-yearly carbon budgets, each in effect an interim target, are to be set by Order of the Secretary of State and in response to the advice of the Committee (s. 9). Although the Secretary of State is free not to follow the Committee's advice, he is required to publish his reasons for any such decision when setting the budget (s. 9(4)). The first three budgets will cover the period 2008-22 and were set by by the Carbon Budgets Order (SI 2009, No. 1259) on 31 May 2009. The budget is set "with a view to meeting' the target for 2050 and the requirements of s. 5. So it is that the budget for 2018-22 must be such that the annual equivalent of the carbon budget is at least 34 per cent lower than the 1990 baseline, but that for these purposes greenhouse gases other than CO 2 are effectively left out of the account (s. 5(4)).

The Committee gave its advice on the first three budgets, as it was required to do by 1 December 2008. It may be summarised as follows:[11]

	Budget 1 2008-12	Budget 2 2013-17	Budget 3 2018-22
Interim budget mtCO 2 e	3018[12]	2819	2570
Intended budget mtCO 2 e	3018	2679	2245

The "intended budget' is recommended if a global agreement is reached (possible in Copenhagen this December) and represents an emissions reduction in 2020 of 42 per cent relative to 1990 levels, whereas the interim budget is less ambitious at 34 per cent.

By way of an illustration of how onerous are the recommendations of the CCC, the initial estimate of annual UK emissions for 2008 recently published by DECC is 623.8 mtCO 2 e. This was two per cent lower than the 2007 figure of 636.6 million tonnes. By reducing UK emissions and making such use of carbon units as is permissible under the forthcoming Regulations, the annual average for 2008-12 needs to be about 600 mtCO 2 e. It can be seen that the role played by carbon units is critical to the question whether the carbon budget is exceeded.

Under the Definitions Order, only carbon units which are attributable to EU ETS allowances may be credited to the UK carbon account (see Regulation 3) and until the EU ETS figures for 2008 have been publshed it remains uncertain what effect this may have on the initial estimate for 2008. The Carbon Budgets Order 2009 sets values for the first three budgets which follow very closely the figures recommended by the CCC as interim budgets:

	Budget 1 2008-12	Budget 2 2013-17	Budget 3 2018-22
Carbon budget mtCO 2 e	3018	2782	2544

Env. L. Rev. 120 It remains to be seen how realstic, how genuinely achievable, these carbon budgets are. It is hoped that they strike the right balance between the ambitious and the achievable.

STAYING WITHIN BUDGET

The Secretary of State is subject to a duty "to ensure that the net UK carbon account for a budgetary period does not exceed the carbon budget' (s. 4(1)). The CCC's First Report advises:

Achieving this path requires strong policies; some of these are already in place, some need to be reinforced, and some new ones will be required. But the path is attainable at manageable cost, and following it is essential if the UK is to play its fair part in avoiding the far higher costs of harmful climate change.

The principal measures recommended in the short term are

a) energy efficiency improvement in buildings and industry

b) fuel efficiency improvement in road vehicles

c) a significant shift towards renewable and nuclear power generation and renewable heat (principally through the use of biomass and heat pumps).

For those monitoring progress there will be no shortage of information, for the Act prescribes in sometimes agonising detail the series of reports required as part of the budget process. These are just some of them.

a) "As soon as is reasonably practicable' after setting the budget, but after consulting the other national authorities, the Secretary of State must lay before Parliament a report setting out the range of figures within which he expects the Net UK Carbon account to fall for each year within the period of the budget (s. 12(1));

b) Annually, the CCC must lay before Parliament a report on progress towards meeting the budgets, further progress needed, and whether the budgets are likely to be met. The first such report must be published by 30 September 2009 (s. 36);

c) The Secretary of State must lay before Parliament a response to the points raised by each of these reports of the CCC, after consulting the other national authorities, and within 31/2 months of the CCC's report (the first such response is due by 15 January 2010);

d) The Secretary of State must lay before Parliament an annual statement containing the information particular to a given year as specified within s. 16. The annual statement for 2008 is due by 31 March 2010 (s. 16(10)).

It can be seen that the Government is likely to get at least some advance warning of a failure to stay within budget (which would of course be a breach of statutory duty given the way the Act is framed - s. 5). In that event there is some, albeit limited, room for manoeuvre.

Env. L. Rev. 121 a) First, the Secretary of State may amend the budget at any time up to the end of the budgetary period itself, but only after taking, and taking into account, the advice of the CCC and consulting with the other national authorities. Amendments after the statutory date for setting the budget may only be made if it appears to the Secretary of State that "there have been significant changes affecting the basis upon which the previous decision was made' (s. 21(2)). If the budgetary period has already begun amendment may only be made if it appears to the Secretary of State that there have been such changes since the period began (s. 21(3)).

b) Second, the Secretary of State can bring forward a maximum 1 per cent of the next budget, so increasing the current budget. On the figures presented above (recommendations of the CCC) this would enable the Secretary of State to increase the interim budget for 2008-12 by a maximum 28 mtCO_2 , although he would have to reduce the budget for 2013-17 by the same amount.

If the budget is not met, the final statement for the budgetary period (that for 2008-12 is due by 31 May 2014) will need to acknowledge the fact. As soon as is reasonably practicable thereafter the Secretary of State must lay before Parliament a report setting out proposals and policies "to compensate in future periods for the excess emissions' (s. 19). What compensation will require is not specified.

WILL IT WORK?

Some of the effects of global warming are, it is said, unavoidable, which makes it necessary to address the question of adaptation. Recognising this, Part IV of the Act imposes yet more advisory duties on the CCC and reporting duties on the Secretary of State (and "reporting authorities'[13]) designed to develop an appropriate programme for adaptation.

The CCC anticipates that cutting global greenhouse gas emissions by 50 per cent, so that total global emissions are 20-24 billion tonnes CO_2 e in 2050, would limit their central expectation of temperature rise by 2100 to as close to 2%A1C as possible, and reduce the risk of extremely dangerous climate change to very low levels. CO_2 e concentrations would be expected to peak at around 500 ppm by the end of the century before falling towards 450 ppm.[14]

They say, "The analysis clearly shows that the required reduction path is feasible'. There is, however, an entire world to travel in order to get from "feasible' to "achieved'. Making this journey successfully depends in large part on the success of policies over which neither we nor our Government has control, not to mention the famous "unknown unknowns' of which the laws of probability suggest there will be plenty between now and 2050.

Nevertheless the stakes are high indeed. As Lord Puttnam memorably put it at the second reading of the Climate Change Bill, "Should we fail to get to grips with this impending crisis, there will be no need to ask for whom the bell tolls. It will be tolling for every man, woman and child on this once quite beautiful planet.'

The Climate Change Act is only a very small part of this global picture. Nevertheless, if it succeeds in bolstering the case for an equitable global deal; if it gives Government the platform to make the policy decisions necessary to achieve the statutory targets it sets; and if ***Env. L. Rev. 122*** it provides sufficient certainty and reassurance of this to businesses, individuals, and the public sector, so that they alter thosemillions of individual decisions that will between them be represented by the net UK carbon account, it may yet prove to be important. It may yet prove to be a powerful affirmation of our desire, and our ability, to do the right thing.

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*. Barrister. I am not qualified to express views about the science of climate change and have no desire to do so. I assume that the "general consensus' about which I speak is correct, whilst recognising that the science underpinning the predictions about global warming is developing constantly. The views I express in this article about the legislation are my own.

1. The statutory body responsible for giving independent and informed advice to Government established by the Climate Change Act 2008 - see Part II and Sch. 1.

2. CCC First Report published 1 December 2008, Executive Summary.

3. This is how the Act itself refers to it, e.g. in s. 36 "the target in s. 1 (the target for 2050)'.

4. The purchaser of offset credits acquires the benefit of a reduction in emissions which takes place elsewhere.

5. See the Second Annual Report to Parliament published on 17 July 2008 pursuant to the statutory duty in the Climate Change and Sustainable Energy Act 2006 and available on http://www.defra.gov.uk/environment/climatechange/uk/ukccp/index.htm.

6. Published on 1 December 2008 and available on www.theccc.org.uk.

7. Consulted upon in autumn 2008 and due to be introduced from April 2010.

8. An organisation is included if it has at least one meter settled on the half-hourly market - and its total half-hourly metered electricity use is greater than 6,000 megawatt-hours (MWh) between 1 January 2008 and 31 December 2008.

9. The Government's main method of providing support to the renewable energy industry is to require electricity suppliers to derive a specific and rising proportion of the electricity they supply from renewable sources. It is to be strengthened by Regulations under the Energy Act 2008.

10. Full title the Climate Change Act 2008 (2008 Target, Credit Limit and Definitions) Order 2009 (SI 2009, No. 1258).

11. I have given total figures but the report divides these into sectors and gases.

12. An annual average of just over 600 mtCO 2 e.

13. See s. 70. These include local authorities.

14. Sir Nicholas Stern's report was based on an estimate of current greenhouse gas concentrations of about 430 ppm CO 2 e.