



# The UK Climate Change Act 2008 – Lessons for national climate laws

An independent review by ClientEarth



November 2009

This report is an independent review by ClientEarth. It will be used as part of Friends of the Earth Europe's Big Ask campaign in 17 countries across Europe. This work involves engaging with legislators, policy makers, businesses and civil society, and includes a series of seminars on the UK Climate Change Act hosted by British embassies in a number of European capitals. The Big Ask Europe campaign is supported by the European Climate Foundation.

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The full text of the Climate Change Act 2008 is available at [www.opsi.gov.uk/acts/acts2008/ukpga\\_20080027\\_en\\_1](http://www.opsi.gov.uk/acts/acts2008/ukpga_20080027_en_1).

Further information on the Climate Change Act is available from the website of the Department of Energy and Climate Change: [www.decc.gov.uk/en/content/cms/legislation/cc\\_act\\_08/cc\\_act\\_08.aspx](http://www.decc.gov.uk/en/content/cms/legislation/cc_act_08/cc_act_08.aspx).

This report is available for download at: [www.clientearth.org/publications/lessons-from-uk-climate-act](http://www.clientearth.org/publications/lessons-from-uk-climate-act).

The report draws on interviews with officials at the Department of Energy and Climate Change ([www.decc.gov.uk](http://www.decc.gov.uk)), the committee on climate change ([www.theccc.org.uk](http://www.theccc.org.uk)) and Friends of the Earth ([www.foe.co.uk](http://www.foe.co.uk)) and explores their roles as key players in developing and implementing the UK's Climate Change Act. We appreciate their assistance and contributions.

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The central pillars of the legislation are legally-binding targets for reducing emissions of greenhouse gases (GHG) by 2020 and 2050. These correspond with climate science and international and EU commitments, and a series of five-yearly carbon budgets which set maximum UK emissions on the trajectory to the 2020 and 2050 targets.

## Introduction & summary

On 26 November 2008, the parliament of the United Kingdom (UK) passed the Climate Change Act (the Act). The central pillars of the legislation are legally-binding targets for reducing emissions of greenhouse gases (GHG) by 2020 and 2050. These correspond with climate science and international and EU commitments, and a series of five-yearly carbon budgets which set maximum UK emissions on the trajectory to the 2020 and 2050 targets. The institutional arrangements include the creation of a new independent advisory committee on climate change (the CCC) to advise the government and to monitor its progress in meeting the targets.

The creation of the UK legislation coincided with the publication of two high-profile reports warning of the serious risks of climate change for human society and the urgency of action. In 2006, the landmark *Stern review on the economics of climate change* demonstrated that the costs of inaction would be far greater than the costs of action to mitigate climate change.<sup>1</sup> In 2007, the intergovernmental panel on climate change's (IPCC) fourth assessment report (AR4) concluded that warming of the climate system is unequivocal and that human activities (principally burning fossil fuels and land use change) are the cause of such global warming by a probability of greater than 90 percent.<sup>2</sup>

The weight of the scientific evidence, confirmed by the advice of the newly-formed CCC, led the UK to adopt the target of reducing emissions by at least 80 percent below 1990 levels by the year 2050. The Act aims to create a national institutional and legal framework for implementing the UK's commitments, and seeks to demonstrate the UK's commitment to addressing climate change at an international level.

Since the Act was first proposed and even since it came into force in 2008, new knowledge has continued to emerge about climate change. The evidence is that we are approaching the upper range of IPCC projections and that key climate indicators – including surface temperatures, sea-level rise, Arctic sea ice, ocean acidification – are moving beyond patterns of natural variability into risky territory where abrupt or irreversible climatic shifts are possible.<sup>3</sup> The evidence confirms the need for rapid, sustained, and effective mitigation action to avoid dangerous climate change.

As the world prepares to negotiate a new global agreement in Copenhagen in December 2009, the UK national legislation on climate change provides an example which other countries considering their own legal and political frameworks on climate change can evaluate.

National action is needed to complement international and EU action, and to answer calls from civil society, business and scientists for a clear policy response to climate change. In the EU all member states must implement the package of EU climate and energy legislation adopted in June 2009, and in many cases this will involve national legislation.

In the UK, the Act was passed with cross-party support and high levels of political engagement. There was also significant mobilisation of civil society, led by Friends of the Earth's Big Ask campaign. The process by which the legislation was initiated and passed in the UK provides a source of practical experience on making climate laws at a national level. Other Big Ask campaigns led by local Friends of the Earth groups calling for national climate laws are now underway in a number of countries in the EU and beyond.

The Act has clear symbolic and practical value for the UK, both domestically and internationally. It has already had a positive institutional impact in terms of how government manages responsibility for reducing GHG emissions and meeting carbon budgets. The CCC has advised the government on setting the levels of the 2050 target and of the first three carbon budgets. Section 1 of the Act reflects the advice of the CCC that the 2050 target should be an 80 percent reduction. The government has also followed the advice of the CCC and has set the first three carbon budgets on an interim basis, before a post-Copenhagen review of the UK's commitment level for 2020. In July 2009 the government published its plan for the UK's low-carbon transition. The CCC's first progress report to parliament in October 2009 concluded that the plan is an ambitious high-level vision but advised that a step change would be required in the pace of UK emissions reduction if it is to meet carbon budgets. It is too early to judge how effective the Act will be in the medium to long term.

In any legal framework on climate change, the scientific basis for determining an overarching long-term target is fundamental. The UK legislation uses a combination of scientific knowledge and independent expert advice to set a long-term target. Future amendments to the 80 percent target will, however, be at the discretion of the government.

The statutory carbon budgets are the key policy innovation of the Act. Setting the budgets will trigger a chain of actions required of the government including putting forward policies and proposals to meet the budgets. The CCC advises and monitors progress and parliament scrutinises the implementation of the Act.

The core philosophy of the Act is that this built-in series of duties, actions and reports will create the transparency, accountability and political pressure necessary to achieve the purpose of the legislation. The Act takes this approach in preference to an enforcement mechanism, and in the UK legal system the opportunities for enforcing the legal targets and duties through judicial review are very limited. In other legal systems, alternative models should be considered where the courts and citizens could play a greater role in ensuring effective implementation and enforcement of national climate laws.

### Purpose and structure of this report

The purpose of this report is to review and analyse the UK experience (the legislative process and background, the Act and its implementation to date) and to suggest lessons and key design issues for national legal frameworks on climate change. The core concepts in the UK framework (science-based legal targets, carbon budgets and accounting and the institutional arrangements) need to be translated into specific national situations to create effective and workable regimes that meet national political and legal needs.

The report is presented in the following chapters:

1. Creating the Climate Change Act – History of the UK's climate legislation
2. Content of the Climate Change Act 2008 – Overview of the legislation and detailed review of Part 1 (Carbon target and budgeting) and Part 2 (Committee on climate change) of the Act
3. Implementation and practice – Overview of the first steps implementing the Act by the government and the government's independent expert advisory committee, the CCC
4. Issues and analysis – Lessons for national climate laws – Discussion of key issues in relation to the Act with perspectives from key participants in the implementation of the legislation and analysis of design issues for national climate legislation

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# 1. Creating the Climate Change Act – History of the UK's climate legislation

This section describes the pre-legislative and legislative processes, including consultation, parliamentary scrutiny and the role of civil society, in the development of the UK's Climate Change Act. It draws on the views of the department of energy and climate change (DECC) and Friends of the Earth.

## Background

Before the introduction of legislation on climate change in the UK, the framework for climate change mitigation was encompassed in a national climate change programme, which was first adopted in 2000 and then revised in 2006. Alongside the climate change programme, energy white papers in 2003 and 2007 recognised the goal of reducing emissions of carbon dioxide (CO<sub>2</sub>) while securing clean and affordable energy supplies. At this stage, the UK's stated domestic targets for emissions reductions over and above the UK's Kyoto target<sup>4</sup> were presented as goals or aims and were not legally binding.<sup>5</sup>

The push for legislation enshrining the UK's targets in a legally binding framework started in 2005 and the concept of a climate law made up of targets and budgets became the focus of a major public and political campaign effort. The campaign was initiated and led by environmental organisation Friends of the Earth.<sup>6</sup>

## The campaign

In April 2005, three members of parliament (MPs) representing the main political parties, John Gummer (Conservative and a former environment minister), Michael Meacher (Labour and a former environment minister), and Norman Baker (environment spokesman for the Liberal Democrats) presented a model climate bill in the House of Commons in the UK parliament. A parliamentary motion was opened calling for legislation, which eventually gained the signatures of 412 MPs (from a total of 646).<sup>7</sup>

In May 2005, Friends of the Earth publicly launched the Big Ask campaign calling for a UK climate law. With its network of local groups, it organised a series of approximately 100 public meetings throughout the UK to present the idea of a law based on a system of carbon budgets.<sup>8</sup> The meetings involved interested local people and local MPs, and had the effect of building grassroots support for the idea.

The Conservatives, the main opposition party, came out in support of the idea and called for it to be included in the government's legislative programme for the next session of parliament.

The government announced on 15 November 2006 that it would bring forward the Climate Change Bill (the Bill).<sup>9</sup> David Miliband, then secretary of state for the environment, said: *"Friends of the Earth have played a big role in pressing the case for action on climate change. Today's Bill is a big step forward in tackling climate change and we will work with them and many others to make sure it works."*<sup>10</sup>

## The legislative process

On 13 March 2007 the Department for environment, food and rural affairs (Defra) published the government's draft Bill for public consultation and pre-legislative parliamentary scrutiny.<sup>11</sup> Nearly 17,500 individuals and organisations responded to the public consultation on the draft Bill, which closed on 12 June 2007. The draft Bill was examined by three parliamentary committees, which held hearings and published reports recommending changes to the draft legislation.<sup>12</sup>

In October 2007, the government published its response to the consultation and pre-legislative scrutiny, entitled Taking Forward the UK Climate Change Bill.<sup>13</sup>

The Bill was introduced to parliament in November 2007. It was first considered by the House of Lords and then in the House of Commons during 2008.

The parliamentary debates led to the government requesting the advice of the 'shadow' committee on climate change on the level of the 2050 target (specifically whether it should be higher than the 60 percent proposed in the Bill).<sup>14</sup> The advice was published on 7 October 2008, and recommended that the UK should adopt a target to reduce GHG emissions by at least 80 percent by 2050.

The parliamentary debates on the climate legislation were characterised by high levels of cross-party support for action on climate change with differing views on the detail of the Bill. The main campaign issues for non-governmental organisations (NGOs) where stronger action was sought were in relation to the level of the 2050 target, the inclusion of international aviation and shipping emissions, and a commitment to action at a domestic level to reduce sources of GHG emissions in the UK. All these issues were responded to in some form in the final legislation, and in addition parliament was given a greater role in the institutional framework of the Act, as part of the accountability structure.

The public campaigning continued throughout the legislative process. Friends of the Earth asked people to lobby their MPs to ask them to support and strengthen the legislation. By the time it was passed in November 2008, approximately 50,000 people had written to the government in support of the legislation.<sup>15</sup> Friends of the Earth's campaign was supported by the major environment and international development NGOs and also by Stop Climate Chaos, a coalition group established by the NGOs.

Friends of the Earth considers that the grassroots efforts, based on using its local groups and supporters to build a public campaign as well as lobbying and working with MPs who backed the initiative, were critical in securing the legislation.<sup>16</sup> This approach involved significant organisational resources and capacity from Friends of the Earth, which needed to be balanced between quality and quantity of activism and campaign resources. The Big Ask campaign also involved internal learning and capacity building as people working on the campaign developed their knowledge of the issues.

The government considers that the process of pre-legislative parliamentary scrutiny, the public consultation and the campaign were useful and strengthened the Bill, particularly in relation to the role of parliament and reporting requirements.<sup>17</sup>

The Climate Change Act received royal assent and became law on 26 November 2008.

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## 2. Content of the Climate Change Act 2008

The aim of the Climate Change Act 2008 is to set up a framework for the UK to achieve its long-term goals of reducing GHG emissions, and to ensure steps are taken towards adapting to the impact of climate change.<sup>18</sup>

The Act is structured in five parts as follows:

Part 1 (Carbon target and budgeting) sets out the key elements of the legislation: the 2050 target and the carbon budgets system. The Act establishes a legal duty on the government to reduce the UK's GHG emissions by at least 80 percent below 1990 levels by the year 2050 as well as an interim target for 2020. The government must also establish a series of five-yearly carbon budgets, and must then prepare policies and proposals for meeting those budgets. Part 1 also sets out the requirement to establish a system of carbon accounting.

Part 2 (The committee on climate change) establishes an independent committee to advise the government on the targets, budgets and other matters related to action on climate change (both mitigation and adaptation) and to report annually to parliament on progress towards meeting the targets and budgets.

Part 3 (Trading schemes) gives the government powers to set up new trading schemes in the UK through secondary legislation. Trading schemes operate by setting caps on total GHG emissions from particular types of activities or sectors, and can limit high-emitting activities or encourage low-carbon or GHG-reducing activities.

Part 4 (Impact of and adaptation to climate change) requires regular reports assessing how climate change is expected to affect the UK, as well as programmes for adaptation to climate change to respond to the impacts and risks identified in the reports.

Part 5 (Other provisions) contains various other provisions aimed at reporting on, measuring and reducing carbon emissions in different sectors of the economy and society. The provisions include powers to establish waste reduction schemes, to introduce charges for single use carrier bags, and to consider requirements for companies to report their emissions.

### Focus of this report

Parts 1 and 2 of the Act contain the key elements of the legislation for the purposes of this legal review and set the legal framework for action to reduce GHG emissions. The provisions in Parts 3 and 5, which establish powers to introduce trading schemes and other programmes and policies, may be necessary to meet the targets, but the actual powers in the legislation represent an incomplete view of the UK's policies and programmes on climate change (some of which is implemented through other legislation).<sup>19</sup> Part 4 of the Act deals with adaptation and is not the focus of this report. Parts 3, 4 and 5 of the Act are not discussed further in this report.

### Application of the Act

The Act applies to the whole of the UK.<sup>20</sup> The core duties under the Act (such as setting the 2050 target and the carbon budgets) apply to the secretary of state and accordingly to the UK government as a whole. However, the term "national authorities" in the legislation refers to the secretary of state and the governments of Scotland, Wales and Northern Ireland (known as the devolved administrations).<sup>21</sup> Certain of the powers and responsibilities established under the Act (e.g. the power to request the advice of the CCC) apply to all the national authorities. The secretary of state must also consult with the devolved administrations on a wide range of matters (including setting the 2050 target and the level of carbon budgets). In addition, some provisions of the Act apply only to Wales. Scotland has also passed its own national climate change legislation, the Climate Change (Scotland) Act 2009.<sup>22</sup>

All references to sections are to sections of the Climate Change Act 2008 unless otherwise stated.

## Part 1: Carbon target and budgeting

### The target for 2050

The central provision of the Act is section 1(1) which states:

*It is the duty of the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 80 percent lower than the 1990 baseline.*

The provision creates a legal duty on the UK government to reduce the UK's emissions of GHG by at least 80 percent below 1990 levels by 2050. The UK's emissions are adjusted to account for any carbon units bought from overseas ("credits") or disposed of to a third party ("debits"). The 80 percent target is a unilateral target which the UK has adopted in national legislation, in the absence of EU or international commitments to such a target. The nature and enforceability of the legal duty in section 1 of the Act is discussed further in Chapter 4 of this report.

The Act covers the UK's emissions of CO<sub>2</sub> and other specified GHG.<sup>23</sup> The reduction in GHG emissions required to comply with the duty can be achieved through actions taken in the UK and abroad. However, the government has a duty under the Act to consider the need for UK domestic action on climate change in relation to both the 2050 target and the carbon budgets.<sup>24</sup>

The 80 percent target was included in the legislation on the advice of the CCC. The CCC was established during 2008 in shadow form while the Bill was being considered in the UK parliament, and was requested to provide early advice to the government on the level of the 2050 target.

### Amending the target in response to developments

The government has the power to amend the 2050 target but this power can only be exercised in certain circumstances.<sup>25</sup> The Act contemplates that it would be appropriate to change the target where the government considers that there have been significant developments in:<sup>26</sup>

- scientific knowledge about climate change, or
- European or international law or policy.

This provision is intended to provide some flexibility in the context of a long-term target. The government can respond to new scientific evidence on climate change, which could suggest that further action to reduce emissions is necessary. In addition, developments at the EU and international level such as a new international treaty on climate change could affect the UK's commitments and make it appropriate to change the UK's national target. The legislation allows the target to be "amended", so the amendment could be an increase or a decrease to the target, depending on the circumstances and what the secretary of state considers appropriate.

The 2050 target can also be adjusted where new GHG are added to the list covered by the Act, or where regulations on international aviation and shipping emissions are made.<sup>27</sup> The baseline year (1990) can also be amended in response to significant developments in European or international law or policy.<sup>28</sup>

In addition to the 2050 target, the Act provides for an interim GHG emissions reduction target for 2020. The 2020 target must be set as part of the carbon budgeting process. Under section 5 of the Act, the carbon budget must be at least 34 percent lower than the 1990 baseline.<sup>29</sup> The 2020 target can be amended in a similar way to that described above in relation to the 2050 target.<sup>30</sup>

The procedure for consulting on a proposal to amend the 2050 target involves the secretary of state obtaining and taking account of the advice of the CCC and seeking the views of the devolved administrations.<sup>31</sup>

### Carbon budgeting system

The 2050 target is supported by a series of carbon budgets. The government must set budgets for the net UK carbon account over consecutive five-year periods.<sup>32</sup> The government has a legal duty under the Act to ensure that the net UK carbon account for a given budgetary period does not exceed the level of the carbon budget.<sup>33</sup> The Act required that the first three carbon budgets (2008-2012, 2013-2017 and 2018-2022) were set by 1 June 2009.<sup>34</sup> Future budgets must be set at least 11½ years in advance.<sup>35</sup> For example, the next budget to be fixed, the fourth budget for 2023-2027, must be set by the end of June 2011.

The carbon budgets are intended to set the trajectory for emissions reductions between 2008 and 2050. The budgets must be set with a view to meeting the 2050 target and complying with the UK's EU and international obligations.<sup>36</sup> The level of the budgets which include the years 2020 and 2050 respectively must comply with the targets for those years. Accordingly, the budget which includes the year 2020 must include at least a 34 percent emissions reduction, and for 2050 at least an 80 percent emissions reduction. Section 5 includes a power to set targets for future years (such as years after 2050), and if such a target is set, then the carbon budget for the period including that year must meet the relevant target.<sup>37</sup>

Carbon budgets are set by the government through a statutory order, following advice from the CCC, consultation with the devolved administrations, and approval by parliament.<sup>38</sup>

### Relevant matters for carbon budgeting

Section 10 of the Act sets out a number of matters which must be taken into account by the government and the CCC in relation to carbon budgets. These matters are:

- scientific knowledge about climate change
- technology relevant to climate change
- economic circumstances, and in particular the likely impact of any decision on the economy and the competitiveness of particular sectors of the economy
- fiscal circumstances, and in particular the likely impact of the decision on taxation, public spending and public borrowing
- social circumstances, and in particular the likely impact of the decision on fuel poverty
- energy policy, and in particular the likely impact of the decision on energy supplies and the carbon- and energy-intensity of the economy
- differences in circumstances between England, Wales, Scotland and Northern Ireland
- circumstances at European and international level
- the estimated amount of reportable emissions from international aviation and international shipping for the budgetary period or periods in question.

This list of matters reflects the idea that carbon budgets relate to the detail of the pathway, and set the downward

trajectory of emissions towards meeting the 2020 and 2050 targets. It is therefore appropriate that the Act allows greater flexibility in the setting of the budgets. The wide range of factors is intended to ensure that the budgets and the targets will be achieved in the most effective way having regard to national circumstances, options and costs as well as the scientific evidence on climate change. The list in section 10(2) is not exhaustive so the government and the CCC could also consider other relevant matters.<sup>39</sup> This wide range of matters which are relevant in the context of carbon budgets is in contrast to the narrow matters that apply to amending the key targets in the legislation (scientific knowledge about climate change and international or EU developments in law and policy).

### Proposals and policies for meeting carbon budgets

The government must prepare such proposals and policies as it considers necessary to enable the carbon budgets to be met.<sup>40</sup> The proposals and policies must be aimed at meeting the 2050 target as well as any other targets that may be set for later years. The proposals and policies, taken as a whole, must also contribute to sustainable development. The duty in section 15 to have regard to the need for UK domestic action on climate change is also relevant to the preparation of the proposals and policies that will enable the targets and budgets to be met, and the government must also set a limit on the net amount of carbon units that may be credited to the net UK carbon account.<sup>41</sup>

### Reporting: indicative annual ranges, annual statement of UK emissions, proposals and policies

The Act establishes a number of new reporting requirements, and the government must lay reports before parliament as follows:

- A report setting out the government's expectations of the indicative annual ranges for the net UK carbon account for each year within a budgetary period<sup>42</sup>
- A report on proposals and policies for meeting the carbon budgets for current and future budgetary periods.<sup>43</sup> The report must include details on how the proposals and policies will affect different sectors of the economy, the timescales over which the policies are expected to take effect, and how carbon units will be used in the budgetary period
- An annual report including an annual statement of UK emissions,<sup>44</sup> UK removals,<sup>45</sup> and net UK emissions<sup>46</sup> in respect of each GHG.<sup>47</sup> In practice, this information is produced for submission to the EU within 15 months of the end of the year in question and, in accordance with this practice, reports under the Act must be laid before parliament no later than 31 March in the second year after the year to which the period relates (for instance, the 2008 report must be laid by 31 March 2010).<sup>48</sup> The annual report must also include the levels of international aviation and shipping emissions in accordance with international carbon reporting practice (unless those figures are already included in the main emissions figures), and the total number of carbon units credited to or debited from the net UK carbon account<sup>49</sup>
- A report in response to the CCC's annual progress report under section 36<sup>50</sup>
- A final statement for each five-yearly budgetary period stating the UK emissions, UK removals, and net UK emissions for each GHG; the number of carbon units credited to or debited from the net UK carbon account; and the final net UK carbon account for the relevant period as well as any adjustments (borrowing and banking) or alterations to the carbon budget.<sup>51</sup> If the budget has not been met, an explanation must be provided

- Where the net UK carbon account exceeds the carbon budget and the budget is not achieved, the government must produce a report on the proposals and policies to compensate in future periods for the excess emissions<sup>52</sup>
- A final statement for 2050.<sup>53</sup>

### Adjustments between budgetary periods

The government has the power to 'borrow' and 'bank' emissions between budgetary periods. Up to 1 percent of a carbon budget of a future budgetary period may be carried back to the preceding budgetary period (borrowing).<sup>54</sup> The effect of this adjustment is to reduce the future budget and increase the earlier budget (in effect making emissions reductions under the earlier budget less challenging to achieve).

Alternatively, the whole or part of any amount by which a carbon budget exceeds the net UK carbon account may be carried forward with the effect of increasing the future carbon budget (banking).<sup>55</sup>

The procedure for making such adjustments involves consultation with the devolved administrations, and obtaining and taking into account the advice of the CCC.

Decisions to bank or borrow emissions must be made no later than 31 May in the second year after the earlier budget period ends (for instance, no later than 31 May 2014 for the 2008-2012 budget). This is the same date as for the final statement for the budgetary period is made under section 18.

### Alterations of carbon budgets or periods

The level of a carbon budget can be amended if the government considers that there have been significant changes since the budget was set that affect the basis on which the budget was originally set.<sup>56</sup>

The procedure for consulting on a proposal to amend the level of a carbon budget or period involves the secretary of state obtaining and taking into account the advice of the CCC and seeking the views of the devolved administrations.<sup>57</sup>

The duration of budgetary periods and their start and end dates can also be changed in certain circumstances.<sup>58</sup> The power to alter budgetary periods is only available where it is considered necessary to bring the budgetary periods in line with similar periods under any agreement at European or international level to which the UK is a party. The secretary of state must first consult with the devolved administrations before making an order to alter budgetary periods.

### Carbon accounting, carbon units and the net UK carbon account

The Act has a relatively complex methodology for carbon accounting based on carbon units. The purpose of the system is to keep track of carbon units which are the basis for calculating the "net UK carbon account". The government's intention is that the carbon accounting system will be broadly similar to, and compatible with, the existing system that is used to keep track of the UK's assigned amount units (AAUs) and other units under the Kyoto Protocol.<sup>59</sup> The government has the power to make regulations setting out in more detail exactly which carbon units can be used in carbon accounting,<sup>60</sup> and how carbon units can be credited to and debited from the net UK carbon account.<sup>61</sup>

The “net UK carbon account” is the number against which the targets and budgets are measured (e.g. the 2050 target that requires the net UK carbon account to be reduced by at least 80 percent below 1990 levels). Section 27 sets out the basis for calculating the net UK carbon account, based on the amount of net UK GHG emissions adjusted to account for carbon units which are credited to and debited from the account.<sup>62</sup>

The government’s guidance on carbon accounting explains how the net UK carbon account is calculated:<sup>63</sup>

- Net UK emissions for a given period are calculated using data from the UK national emissions inventory report. This comprises aggregate gross emissions from sources in the UK, including emissions from land use, land use change and forestry (LULUCF), which are then adjusted to take into account removals by sinks associated with LULUCF activity.
- The net UK emissions are then adjusted to account for the amount of carbon units which have been brought in from overseas by the government and others to offset UK emissions (credits), and UK carbon units which have been disposed of to a third party (debits).

Carbon units are defined and designated by regulation.<sup>64</sup> Designated carbon units include those recognised by the United Nations Framework Convention on Climate Change (UNFCCC) under the Kyoto Protocol and under the EU Emissions Trading System (EU ETS).

For each budgetary period, the government must set a limit on the net amount of carbon units that may be credited to the net UK carbon account for that period.<sup>65</sup> In practice, this provision requires the government to decide how many international credits will be allowed to be used in the UK, and therefore the balance of domestic (UK) action required to meet the carbon budgets. The limit must be set by statutory order, and the order may specify that certain types of carbon units do not count towards the limit. The net UK carbon account to be determined under section 27 cannot credit carbon units in excess of the limit set under section 11.<sup>66</sup>

The procedure for making regulations under sections 26 and 27 varies depending on the matter involved.<sup>67</sup> For the first set of carbon accounting regulations, regulations specifying a new kind of carbon unit, regulations altering the value of a carbon unit, and regulations modifying primary legislation, the affirmative resolution procedure<sup>68</sup> applies. For regulations on these matters, the advice of the CCC must also be obtained and taken into account. Consultation with the devolved administrations is required for all regulations.

Section 29 sets out separate definitions of “UK emissions” (emissions of specified GHG from sources in the UK), “UK removals” (removals of a specified GHG from the atmosphere due to LULUCF activities in the UK), and “net UK emissions” (the amount of UK emissions of a specified GHG for the period reduced by the amount of UK removals for the period). These emissions and removals are to be determined in accordance with international protocols, such as the UNFCCC reporting guidelines on annual inventories. UK emissions, removals and net UK emissions of each specified GHG must be reported (individually and in aggregate) in the annual statement of emissions under section 16.

### International aviation and shipping emissions

Emissions of GHG from international aviation or international shipping do not count as emissions from sources in the UK under the Act.<sup>69</sup> However, the government must either make regulations before the end of 2012 setting out how such international sources of emissions will be counted as UK emissions, or explain in a report to parliament its reasons for not making such regulations.<sup>70</sup> The regulations can provide that certain emissions will be regarded as UK emissions if they relate to the transport of passengers or goods to the UK. The government must obtain the advice of the CCC and consult with the devolved administrations before making the regulations.

## Part 2 – Committee on climate change

Part 2 of the Act establishes an independent advisory committee, the CCC.<sup>71</sup> The CCC has a central role in the operation of the Act, which is examined further in Chapters 3 and 4 of this report.

The CCC consists of a chair and five to eight committee members appointed by the national authorities. The members of the CCC have knowledge and expertise in areas such as climate change policy, climate and environmental science, economic analysis and forecasting, emissions trading, energy supply and production, and technology development and diffusion.<sup>72</sup> Further information on the membership and work of the committee is set out in Chapter 3 of this report.

### Functions of the CCC

The CCC’s primary function is to advise the government on key matters under the Act. The Act sets out a number of matters on which the government is required to obtain, and take into account, the CCC’s advice. The government (and the national authorities) can also seek the CCC’s advice on other matters related to the Act or climate change in general. The advice of the CCC must generally be published.<sup>73</sup> The CCC also has an important role in monitoring and reporting on the government’s progress under the Act, and its annual reports are presented directly to parliament.

### Advice on 2050 target level, carbon budgets, international shipping and aviation emissions

The first duty of the CCC was to advise the government on the level of the 2050 target.<sup>74</sup> This advice was required by 1 December 2008. As noted above, the CCC was requested to provide this advice during the passing of the Bill before the CCC had been established as a statutory body, and the shadow committee’s advice that the target for 2050 should be an 80 per cent reduction in all greenhouse gases (as opposed to a 60 percent target for CO<sub>2</sub> only) was incorporated into the final legislation.

The CCC must advise the government on carbon budgets. This advice must cover:<sup>75</sup>

- the level of the budget
- the extent to which the budget should be met by the use of carbon units or by reducing the amount of net UK emissions of targeted GHG
- the contributions to be made by different sectors of the economy, whether covered by trading schemes or not
- the sectors of the economy where there are particular opportunities for contributions towards meeting the carbon budget.

The CCC must also provide advice on emissions from international aviation and shipping, and the consequences of treating such emissions as emissions from UK sources.<sup>76</sup> This advice must be provided by 31 December 2010, at the same time as the CCC advises on the level of the fourth budgetary period. The CCC must give such advice on each subsequent budgetary period until the government has passed regulations to include international aviation and shipping emissions in the main carbon budget system.

## Reports on progress

The CCC must report directly to parliament every year on the government's progress towards meeting the carbon budgets.<sup>77</sup> The report must set out the CCC's views on:

- progress towards meeting the carbon budgets that have been set under Part 1 and the 2050 target
- the further progress that is needed to meet the budgets and the target
- whether the budgets and the target are likely to be met.

At the end of each five-year carbon budget, the CCC must also give its views on the way in which the budget for the period was or was not met, and action taken during the period to reduce net UK emissions of targeted GHG.<sup>78</sup>

The first report was published on 12 October 2009.<sup>79</sup> Subsequent annual reports are due by 30 June each year. However, the report relating to the end of a five-year carbon budget is due on 15 July in the second year after the end of the carbon budget (so the report for the 2008-2012 budget is due by 15 July 2014).

The government must respond to the CCC's progress report by laying a report in parliament each year.<sup>80</sup> The government's response to the CCC's first progress report is due on 15 January 2010, and subsequent reports are due no later than 15 October in the year the CCC makes its report.

## Advice and assistance

The CCC has a duty to provide, at the request of any of the national authorities, advice, analysis, information and assistance in connection with:<sup>81</sup>

- the functions of the national authority under the Act
- the progress made towards meeting the objectives set by or under this Act
- adaptation to climate change
- any other matter relating to climate change.

The CCC can also provide, on request, specific advice on the limit proposed to be set in any trading scheme. The CCC can also be asked to assist in the preparation of statistics relating to GHG emissions. The devolved administrations can also seek advice or other assistance in relation to any of their targets, budgets or other requirements relating to GHG emissions.

## Powers to give guidance and directions to the CCC

The national authorities are entitled to give the CCC guidance under section 41 or directions under section 42 as to the matters the CCC should take into account in exercising its functions. The secretary of state can give guidance or directions to the CCC in relation to Part 1 and in relation to matters the CCC is required to advise on such as the level of the 2050 target and carbon budgets.

Where guidance is given, the CCC must have regard to the guidance in relation to the exercise of that function.<sup>82</sup>

The CCC is required to comply with directions given under section 42. However, to preserve the independence of the CCC, the government cannot make directions about the content of any advice or report.<sup>83</sup>

At the end of each five-year carbon budget, the CCC must give its views on the way in which the budget for the period was or was not met, and on action taken during the period to reduce net UK emissions of targeted GHG.<sup>78</sup>

## 3. Implementation and practice

This section provides an overview of the key developments in implementing the Climate Change Act since it became law in November 2008. It also presents the views of DECC and the CCC on the early experience of implementing the Act in practice.

The Committee on Climate Change :

*Indicating main area of expertise*

Lord Adair Turner, Chair

Dr Samuel Fankhauser *Economics*

Sir Brian Hoskins *Science*

Professor Michael Grubb *Economics*

Professor Julia King *Technology*

Lord John Krebs, Chair, Adaptation Sub-Committee, *Science*

Lord Robert May *Science*

Professor Jim Skea *Technology*

### Appointment of committee on climate change

The CCC was formally established as an independent body on 1 December 2008. The members of the CCC are experts in climate change science, economics, energy systems and technology. It is chaired by Lord Adair Turner and its chief executive is David Kennedy. The CCC has an annual budget of approximately £4.5 million and a secretariat of 30 staff to conduct economic, scientific and social analysis and provide corporate support.<sup>84</sup> The appointment of Lord Turner as chair of the CCC has generally been recognised as an important factor in establishing its status, credibility and independence.<sup>85</sup>

### New Department of energy and climate change

The formation of a new Department of energy and climate change (DECC) in October 2008 brought together energy policy and climate change mitigation policy. According to the government, the decision to create a new department “reflects the fact that climate change and energy policies are inextricably linked – two thirds of our emissions come from the energy we use. Decisions in one field cannot be made without considering the impacts in the other.”<sup>86</sup> DECC is now the lead department responsible for implementing Parts 1 and 2 of the Act including setting the carbon budgets. Defra remains responsible for climate change adaptation policy, which is covered by Part 4 of the Act.<sup>87</sup>

### First report of the committee on climate change

The first report of the CCC, Building a low-carbon economy - the UK's contribution to tackling climate change was published on 1 December 2008.<sup>88</sup> The report contains the CCC's advice on:

- the level of the 2050 emissions reduction target
- the levels of the UK's first three legally binding carbon budgets for 2008-2022
- whether budgets should cover CO<sub>2</sub> only or all GHG including certain non-CO<sub>2</sub> gases
- whether, and if so how, international aviation and international shipping emissions should be included in the UK's targets and budgets
- the extent to which the carbon budgets should be met through UK domestic action to reduce emissions or through purchase of international credits.

The CCC provided detailed analysis to underpin each of its recommendations (the report is 480 pages long) and explained the implications of the recommended carbon budgets for economic growth, energy security, the competitiveness of particular industrial sectors, fuel poverty, and for specific regions and devolved administrations.

The CCC affirmed the advice that it had given in advance to the government that the appropriate target for 2050 is an 80 percent reduction in GHG emissions, based on scientific evidence and a fair contribution by the UK to an international agreement on climate change.

The CCC also recommended that the UK reduce emissions of all GHG by at least 34 percent by 2020 relative to 1990 levels, with carbon budgets to match this target (the interim 2020 target). The interim target should increase to 42 percent relative to 1990 (31 percent relative to 2005) once an international agreement to reduce emissions is agreed (the intended 2020 target).

## Adoption of first carbon budgets

In April 2009, alongside the fiscal budget, the government announced that it would accept the CCC's advice on the levels for the first three carbon budgets and the interim target of reducing emissions of all GHG by at least 34 percent relative to 1990 levels by 2020.<sup>89</sup> The levels of the carbon budgets are set out in the Carbon Budgets Order 2009.<sup>90</sup> The budgets are:

	Budget 1 (2008 - 12)	Budget 2 (2013 - 17)	Budget 3 (2018 - 22)
Carbon budgets (MtCO <sub>2</sub> e)	3018	2782	2544
Percentage reduction below 1990 levels	22	28	34

The government also confirmed that it would aim to meet the interim budgets through UK domestic action except to the extent that international credits are allowed under the EU ETS.<sup>91</sup>

The government will seek further advice from the CCC on the intended targets following the satisfactory conclusion of a new international agreement on climate change and an EU decision on sharing responsibility for the target.<sup>92</sup>

## Carbon accounting regulations

The Carbon Accounting Regulations 2009 set out detailed rules for the UK's system of carbon accounting which will determine compliance with the targets and budgets.<sup>93</sup> Guidance was published alongside the regulations to explain how the system works.<sup>94</sup> The carbon accounting system was the subject of a public consultation in October 2008 before the regulations were laid before parliament. DECC officials noted that future accounting rules should be designed to fit with existing carbon accounting under EU and international rules, and that the detailed rules should be set in secondary legislation so that they can be amended to reflect further changes in accounting systems over the next few years.

## Publication of UK low-carbon transition plan and strategies

In July 2009, the government published its policies and proposals on how it intends to meet the interim 2020 target of reducing emissions by at least 34 percent relative to 1990 levels and the carbon budgets, as required by section 14 of the Act. The *UK low-carbon transition plan: a national strategy for climate and energy* was published together with a set of related documents including the UK renewable energy strategy, the low-carbon industrial strategy, and the low-carbon transport strategy.<sup>95</sup> Projections of future UK emissions published alongside the plan showed that taking into account all the policies set out in the plan, and under central assumptions for variables such as fossil fuel prices and economic growth, the UK can expect to meet its carbon budgets with a significant surplus of 147 million tonnes of CO<sub>2</sub> equivalent in total across all three periods. The plan also sets out a proposed system for managing carbon budgets to ensure that all parts of government take responsibility for delivery.

## First progress report of the CCC to parliament

On 12 October 2009, the CCC issued its first annual progress report to parliament under section 36 of the Act. *Meeting Carbon Budgets - the need for a step change* assesses the government's progress to date in achieving actual emissions reductions and putting in place the policy framework to meet carbon budgets.<sup>96</sup> The report also aims to identify the emission reduction indicators the CCC intends to use to measure progress and outlines the policies it expects will be required to achieve the required emissions reductions in electricity generation, from buildings and industry, and in heat and transport up to the end of the third carbon budget in 2022.

The government must present parliament with its response to the CCC's progress report by 15 January 2010.

## DECC and CCC views on implementation to date

Interviews with DECC officials and the CCC indicate that both consider that in the first year of the legislation, the Act has had an impact on the institutional approach to climate change and that the CCC's advice has had an impact on aspects of government policy in key areas. The CCC gives the example of coal power and carbon capture and storage (CCS) where it made specific recommendations in its first report, and the government has subsequently published proposals for a framework for the development of clean coal.<sup>97</sup> DECC officials also noted that the CCC's advice to consider approaches to non-CO<sub>2</sub> gases through new policies on agriculture, and addressing the role of small and medium-sized enterprises (SMEs) in reducing CO<sub>2</sub> emissions, was being taken forward.<sup>98</sup>

In other areas, notably the power sector where the CCC's analysis supports a pathway towards radical decarbonisation of the power sector by 2030, further actions or decisions are still required of the government if it is to align with the CCC's advice and recommended outcomes. In the low-carbon transition plan the government indicated it would publish a 2050 roadmap in spring 2010 which can be expected to address issues such as an indicative timeframe for decarbonising the power sector.

Implementation to date has resulted in institutional changes within government, and officials consider that the Act has resulted in responsibility for reducing GHG emissions becoming a responsibility for the whole government. DECC is developing an approach where every government department has a departmental carbon budget and is responsible for managing the budget and policies to achieve the required emissions reductions (e.g. transport, education).

The CCC's first progress report draws attention to factors such as the economic recession. It indicates that the downturn will have the effect of reducing emissions which will mask a lack of real progress in low-carbon investment. The CCC concludes that a step change in policy and the achievement of real emissions reductions are still required if the long-term 2050 target is to be achieved. In the CCC's view, it is too early to judge the success of the Act in its first year and a long-term view is required, because major challenges remain in putting the right policies in place and achieving real emissions reductions. The CCC highlights that a shift from interim to intended targets and budgets up to 2020 in response to an international climate change agreement will bring up an important question: will the UK achieve the tighter budgets through more ambitious domestic efforts or through the purchase of credits from other countries?<sup>99</sup> The answer to this question will in part depend on whether the government opts for a short-term approach based on buying international credits for action undertaken in other countries or whether it favours more ambitious, early low-carbon investment which will ultimately achieve greater reductions in the UK and put the UK on a path to meeting the 80 percent 2050 target through a decarbonised economy.<sup>100</sup>

## 4. Issues and analysis – Lessons for national climate laws

This section of the report considers key issues in relation to the Act and, based on the analysis of the UK legislation, aims to suggest lessons for the design of national climate law in other countries. The analysis draws on interviews with DECC, the CCC and Friends of the Earth as key participants in the creation and implementation of the Act. The discussion in this chapter also includes the views of ClientEarth on lessons from the UK Act.

In analysing the elements of the UK climate legislation, the aim is to identify lessons and approaches to designing national legislation which may be relevant to other countries considering adopting national legislative frameworks on climate change. National legal frameworks for tackling a complex and long-term problem such as climate change could be considered necessary to respond to political, scientific, business and civil society calls for a clear national response, could be required in order to implement EU or international commitments at national level, or both factors could be relevant motivations.

Proposed legislation in other national systems can benefit from lessons apparent in the UK experience, and can build on the UK approach. However, it is crucial that a country develops a national approach that is consistent with and reflects its political, institutional, and constitutional context and culture. While any national climate legislation will have common elements, the approach should be to take lessons from the UK experience rather than to copy the letter of the law.

### The value of a legal framework

It is clear that an Act of parliament that sets the framework for all national action to mitigate climate change is seen as valuable. In the UK the legislation makes sense for both symbolic and practical reasons. A key motivation for the UK government in passing national climate legislation was to demonstrate nationally and internationally its leadership and commitment to long-term action on climate change and to encourage commitments from other countries as part of an international agreement. The Act accordingly has a symbolic value by putting commitments on climate change into legislation.

The Act also addresses the practical concern that climate change is a long-term problem. By putting a long-term framework into legislation the Act can help to overcome the tendency of political and electoral systems to favour short-term approaches. In the UK, specific concerns had been identified where political targets for emissions reductions were not carried through in subsequent action and policy.<sup>101</sup>

In addition, there was interest from NGOs and also politicians themselves in taking certain scientific and economic decisions related to climate change away from politicians, and putting them in the hands of expert advisors.<sup>102</sup> A key concern for business also was to establish certainty in relation to climate policy and a legal framework (and carbon budgets) addressed that concern.<sup>103</sup> Once enacted, legislation is far more difficult to reverse than policy.

The legislation makes meeting the targets and carbon budgets a legal duty on the government. The enforceability of the legal duty is discussed further below. However, it is clear that the presence of a legal framework and duties marks a fundamental institutional shift. Officials implementing the legislation note that the legal framework has the effect of making the climate change targets the responsibility of the whole of government, rather than one department, and that ministers and officials must act in a way that is consistent with the law so the legislative targets and budgets directly influence the policies adopted.<sup>104</sup>

The Act sets a long-term target, a route towards that target, and ways to measure and assess progress. However, although an obvious point, it is important to note the legislation itself does not achieve or incentivise any actual emissions reductions. The Act is only a framework and therefore its effectiveness ultimately depends upon a large number of other programmes, policies and plans to achieve the targets and budgets.<sup>105</sup> Some of these programmes and policies will themselves require legislation.<sup>106</sup> As noted in the previous section, it is too early to measure the effectiveness of the Act in terms of achieving real reductions in GHG emissions.

## Long-term science-based targets

The central provision of the Act is the target to reduce the UK's GHG emissions (the net UK carbon account) by at least 80 percent below 1990 levels by the year 2050. The target is linked in the Act to three key factors: independent advice, climate science, and international and EU decisions about levels of emissions reductions.

The scientific basis for determining an overarching emissions reduction target is fundamental, and we consider that this is a key element in any framework addressing climate change, at national, EU and international level. In the UK, an important factor for the government is that independent expert advice should be sought on an appropriate level for the 2050 target, and the advice of the CCC was sought before amending the target to 80 percent.<sup>107</sup>

The analysis supporting the UK's 80 percent 2050 target is set out in the CCC's first report.<sup>108</sup> The CCC goes through several steps to reach its conclusion on the 80 percent level.<sup>109</sup> Its approach, set out in Chapter 1 of its report *Building a low-carbon economy – the UK's contribution to tackling climate change*, is to evaluate:

- scientific knowledge about climate change and the particular characteristics of climate science such as feedback loops within the climate system and thresholds in the climate system beyond which irreversible changes may occur in natural systems, and the relationship between emissions and impacts on human welfare
- a global climate objective – based on limiting central expectation of temperature rise to 2°C and reducing the risk of extremely dangerous climate change to very low levels. This analysis considers human welfare impacts in relation to water, ecosystems, food, coastlines, health and singular events (e.g. melting of Greenland and West Antarctic ice sheets)
- a global emissions reduction objective – with reference to three parameters: assumed year of global emissions peak; the rate of emissions reduction after that peak; and the ultimate emissions floor. The results suggest a trajectory peaking at 2016 with subsequent annual emission rates of three percent or more is needed to achieve the global climate objectives
- an appropriate UK contribution to the global target – based on the principle of common but differentiated responsibilities and the range of reductions required under different burden-sharing models.

The CCC concluded that:

This UK objective would be a reasonable contribution to a global objective of cutting GHG emissions by 50 percent or more below current levels. This global objective, with further reduction beyond 2050, would aim to keep central estimates of global average temperature rise by 2100 close to 2°C, and reduce the chances of extreme climate change (e.g. a more than 4°C rise in temperature by 2100) to a very low level.

The CCC states that it is not possible to provide a definitive and obvious maximum temperature target as to the global danger zone, and that a judgment needs to be made about the target to be adopted. Many scientists consider that even stronger targets are justified based on current knowledge about the climate system and emissions, and ClientEarth considers that given the risks of climate change to human society and the environment a precautionary approach should be adopted to minimise such massive risks.

In terms of a methodology, however, the approach taken by the CCC represents a sound methodology for determining an appropriate national contribution to an overall scientific goal for emissions reductions.

The approach of the CCC is also consistent with an important distinction between long-term targets and carbon budgets. In our view, the UK Act makes this distinction. As demonstrated by the CCC, the 2050 target is determined by evaluating scientific knowledge about the climate system, emissions of GHG and the human and environmental impacts of climate change, making a judgment about risks and dangers associated with climate change impacts, and determining a fair national contribution by the UK to a global mitigation response. When advising the government on the 2050 target, the CCC also advised that achieving the 2050 target is technologically possible and affordable for the UK.<sup>110</sup> However, this advice was given after the conclusion had been reached on the 2050 target.

In contrast, carbon budgets relate to the downward trajectory of emissions reduction towards achieving the long-term target. Decisions about setting the budgets and choices of policy measures and technology options can appropriately have reference to a range of factors such as those set out in section 10 of the Act. Climate science is still a relevant factor for carbon budgeting purposes because emissions of GHG, especially CO<sub>2</sub>, are cumulative, and science suggests that global emissions should peak and begin to decline by around 2015. However, in the case of budgets, the science becomes one factor among many rather than being the primary or determinative factor.

The UK legislation provides flexibility to revise the targets (as well as the budgets and other aspects of the legislation such as the base years and the GHG covered). The long-term target (2050) can be amended in response to significant developments in climate science or in international or EU law or policy. Amending the target is discretionary and it is up to the government to decide whether to amend the target, although the advice of the CCC must be sought and taken into account before doing so.

A key issue is whether implementation of the Act will stay in step with the latest scientific knowledge about climate change. The importance of scientific knowledge about climate change is reflected in the UK Act. However, by leaving the question of whether to amend the target to the discretion of the government, the Act lacks a legal trigger for ensuring the target is kept up-to-date. The CCC has indicated that because of uncertainties surrounding the judgments about the 2050 target, adjustments to the 2050 target may be needed over time, for instance if climate modelling or actual temperature trends suggest increased danger points or if actual emissions diverge from modelled trajectories.<sup>111</sup>

It is also possible that a gap could emerge between the UK's national climate legislation and EU and international law and policy. If an international agreement on climate change is delayed or is not sufficiently ambitious, the government might want to reduce its domestic commitments. In the implementation to date, this issue has been dealt with by adopting interim carbon budgets up until 2022 which should be replaced by tougher intended budgets following international and EU agreement. The immediate practical implications of this situation will not be known until after the Copenhagen negotiations. The Act provides a mechanism whereby the UK government can adopt targets and carbon budgets that are more ambitious than its EU and international obligations.<sup>112</sup>

The key conclusion is that the primary reference point for determining national targets should be up-to-date climate science aligned with objectives to avoid dangerous climate change.<sup>113</sup>

## Effectiveness of the carbon budgets system

The key policy innovation in the Act is the carbon budgets system of five-yearly budgets set at least three budget periods in advance and adopted through secondary legislation. The aim of the system is to set legal budgets which are linked to the overarching 2020 and 2050 targets as well as to policies to meet the budgets. In turn the budgets are linked to the carbon accounting system and the reporting and monitoring system with roles played by the government, the CCC, and parliament, as discussed below.

Advising on the carbon budgets is a core function of the CCC. In practice, the setting of carbon budgets is more complex than the overarching long-term targets. This is because budgets are set having regard to a wide range of factors such as science, economics, energy policy, technology, fiscal matters, and social implications (as set out in section 10 of the Act).

The relationship between carbon budgets and the policy process is also critical. There is a risk that policy makers become focused on counting tonnes of CO<sub>2</sub> for the next five-year period at the expense of decisions to put in place longer-term frameworks to reduce emissions. If this happened, then the innovation of carbon budgets would be contrary to the original purpose of overcoming short-term political cycles and encouraging longer-term planning. The practical implications of this risk will also turn on choices about how to achieve budgets and the level of domestic action, such as serious investment in a low-carbon infrastructure.<sup>114</sup>

Members of the CCC have suggested that carbon budgets “help create regulatory certainty for investors, while maintaining enough flexibility for mid-term corrections” and that “the five-year horizon is thought to be long enough to absorb short-term fluctuations in emissions, for example due to weather extremes or fluctuations in the business cycle.”<sup>115</sup>

The risk of a short-term focus is managed to some extent by the requirement to consider the 2050 target when setting the carbon budgets (and one of the factors in the CCC’s advice was the need to make an early contribution to this target). DECC also notes that three to five years is an appropriate timeframe for policy delivery, and that the Act does force longer-term thinking; for example, by 2011 the government will have to announce carbon budgets and proposals to meet the budgets up to 2027.<sup>116</sup>

However, a shift from the interim budgets to the tougher intended carbon budgets (to be reviewed after Copenhagen) will again raise the question of whether the targets will be met through more ambitious domestic action or through the increased use of international credits (currently restricted to credits allowed under the EU ETS). Under the Act, the government must consider the balance between domestic action to reduce the UK’s GHG emissions, and the purchase of international credits from other countries, but there is no binding rule about the level of domestic effort required. More ambitious domestic action would involve the kind of step change in policy thinking suggested by the CCC in its first progress report (specifically in relation to the power sector, home energy efficiency and electric cars).

## Governance and compliance

The effectiveness of the Act primarily turns on a series of internal and, to a certain extent, automatic triggers. The government is under duties to set and meet carbon budgets and to obtain and consider the advice of the CCC. The CCC is a committee of experts, is independent and well-resourced. The government must adopt policies and proposals for achieving the targets. The CCC monitors the progress of the government and reports to parliament. If the government declines to follow the CCC’s advice, it must explain its reasons. If it fails to meet a carbon budget, it must take action and put forward proposals to compensate for the excess emissions.

The core philosophy of the Act is that this series of built-in duties, actions and reporting requirements, combined with the monitoring function of the CCC, and the scrutiny role of parliament, will create transparency, accountability and political pressure to ensure that governments will comply. Compliance with the legislation is therefore institutional and political.

The Act does not contain a legal enforcement mechanism. The government believes that the duties in the legislation are legally binding and enforceable because of their statutory basis.<sup>117</sup> However, in the UK legal system,

the opportunities for enforcing the legislation through the courts are very limited.<sup>118</sup> In theory, the targets and carbon budgets are legally binding and the government could be challenged if it failed to meet them. In practice, judicial review in the UK is generally restricted to challenges related to procedural issues in this kind of case, and recent case law confirms that such a challenge is likely to have little chance of success.<sup>119</sup>

The absence of an enforcement mechanism also means that the Act limits the role of civil society, which was pivotal in getting the legislation passed, in enforcing the legal duties through the courts. In other legal systems, courts and judges play greater roles and might play an important monitoring and enforcement role in a system of national climate legislation. This role can extend to citizen-initiated action where citizens have the right to go to the courts and seek the enforcement of environmental duties under the legislative framework. The enforcement of such duties can be linked back to a primary legislative goal and a court can determine appropriate actions to be taken to meet the goal.

## Lessons for national legislation

As noted in the previous section on implementation to date, it is too early to determine the effectiveness of the Act in the UK. Long-term and sustained political will and action will be necessary to meet the budgets and the 2050 target. A key test for the framework will be how it responds if the UK’s emissions veer off course.<sup>120</sup> Tests will also come in decisions on the balance between UK domestic action to reduce emissions and use of international credits and what happens if there is a (continued) divergence between the UK’s intended carbon budgets and long-term target and EU and international law and policy. The cross-party political support for the legislation as it was created and the high profile of the CCC suggest that the framework itself will be an enduring one and that there will be sustained political pressure to follow the recommendations of the CCC. The UK legislation has important implications for the design of climate legislation in other jurisdictions. However, existing institutional, cultural and constitutional arrangements should be considered and national legislation designed to fit into those arrangements. Relevant factors include the nature of federal and state structures, government decision-making and policy cycles, the role of parliament, political culture and the role of the courts. Important questions include: How can carbon budgets be set and then implemented across government policy and integrated with existing climate change and energy policy? How will the advisory function, played by the CCC in the UK model, be fulfilled? How and by whom will the legislation be monitored and enforced?

## Glossary of abbreviations and terms

the Act	Climate Change Act 2008
affirmative resolution	Procedure used in the Act for regulations or statutory orders (to set carbon budgets). In the affirmative resolution procedure, a statutory instrument cannot become law unless specifically approved by parliament. The statutory instrument cannot be amended in the procedure; it can only be approved, annulled or withdrawn
the Bill	Climate Change Bill
carbon budgets	a cap on the total quantity of GHG emissions emitted in the UK (net of EUA purchase) over a specified time. Carbon budgets are set (by statutory order) by the UK government on the advice of the CCC. Each carbon budget covers a five-year period with three budgets set at a time. The first three carbon budgets are for 2008-2012, 2013-2017 and 2018-2022.
CCC	committee on climate change
DECC	department of energy and climate change
Defra	department for environment, food and rural affairs
devolved administrations	the governments of Scotland, Wales and Northern Ireland
EU ETS	EU emissions trading system
GHG	greenhouse gases
intended target	a higher 2020 target intended to replace the interim target upon conclusion of an international climate change agreement. The CCC recommended the intended target for the UK should be an emissions reduction of 42% in 2020 relative to 1990
interim target	the UK has adopted an interim 2020 target requiring a reduction in GHG emissions of at least 34 percent by 2020 relative to 1990 levels
national authorities	the secretary of state and the governments of Scotland, Wales and Northern Ireland (known as the devolved administrations)
net UK carbon account	net UK GHG emissions adjusted to account for carbon units which are credited to and debited from the account
NGOs	non-governmental organisations
UK	United Kingdom
UNFCCC	United Nations Framework Convention on Climate Change

# Endnotes

- 1 Stern Review on the Economics of Climate Change (2006) [www.hm-treasury.gov.uk/sternreview\\_index.htm](http://www.hm-treasury.gov.uk/sternreview_index.htm).
- 2 IPCC Climate Change 2007: Synthesis Report [www.ipcc.ch/publications\\_and\\_data/publications\\_ipcc\\_fourth\\_assessment\\_report\\_synthesis\\_report.htm](http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm).
- 3 Copenhagen Science Synthesis Report (2009) [climatecongress.ku.dk/](http://climatecongress.ku.dk/).
- 4 The UK's legally binding Kyoto target, reflected in the EU's burden sharing agreement, is a 12.5 percent reduction in GHG emissions from 1990 levels by 2008-2012.
- 5 The sequence of targets and goals prior to the Climate Change Act can be traced through various documents. The 1997 manifesto of the Labour party included a domestic commitment to a 20 percent reduction in carbon dioxide emissions from 1990 levels by 2010. However, in the Climate Change Programme published in 2000 the 20 percent figure was referenced as a "domestic goal". The 2003 energy white paper restated the domestic goal for 2010, and established that a key goal of energy policy was to put the UK on a path to cut carbon dioxide emissions by 60 percent by about 2050, with real progress by 2020. The 60 percent figure was based on the recommendations of the Royal Commission on Environmental Pollution (RCEP) in its 22nd report, Energy - The Changing Climate (published June 2000), which advised that, as a contribution to global efforts to prevent excessive climate change, the UK should plan to reduce carbon dioxide emissions by 60 percent from current (2000) levels by 2050: [www.rcep.org.uk/reports/index.htm](http://www.rcep.org.uk/reports/index.htm).
- 6 England and Wales, [www.foe.co.uk](http://www.foe.co.uk).
- 7 Early Day Motion (EDM) No 178 24 April 2005 – Climate Change: "That this House agrees with the government's Chief Scientific Adviser that climate change is a threat to civilisation; welcomes the cross-party agreement in favour of major cuts in greenhouse gas emissions, and particularly in carbon dioxide emissions, by 2050; believes that such a long-term target will best be met through a series of more regular milestones; and therefore notes the Climate Change Bill that was presented by a cross-party group of honourable Members in the final days before the General Election, and hopes that such a Bill will be brought forward in this parliament so that annual cuts in carbon dioxide emissions of 3 per cent. can be delivered in a framework that includes regular reporting and new scrutiny and corrective processes."
- 8 Interview FOE 7 October 2009.
- 9 Queen's Speech, 15 November 2006.
- 10 FOE Press release "Friends of the Earth's Big Ask campaign gets Climate Change Bill into Queen's Speech" [www.foe.co.uk/resource/press\\_releases/friends\\_of\\_the\\_earths\\_big\\_15112006.html](http://www.foe.co.uk/resource/press_releases/friends_of_the_earths_big_15112006.html).
- 11 The climate change functions of Defra have now transferred to DECC, a new department created in October 2008. DECC has lead responsibility for implementing the Climate Change Act including carbon budgets.
- 12 House of Lords, House of Commons: Joint Committee (the JC), Report on the Draft Climate Change Bill, Published on 3 August 2007 [www.publications.parliament.uk/pa/jt200607/jtselect/jtclimate/170/170i.pdf](http://www.publications.parliament.uk/pa/jt200607/jtselect/jtclimate/170/170i.pdf); House of Commons Environment, Food and Rural Affairs Committee, Report on Draft Climate Change Bill, Published on 4 July 2007 [www.publications.parliament.uk/pa/cm200607/cmselect/cmenvfru/534/534i.pdf](http://www.publications.parliament.uk/pa/cm200607/cmselect/cmenvfru/534/534i.pdf); House of Commons Environmental Audit Committee, Beyond Stern: From the Climate Change Programme Review to the Draft Climate Bill. Published on Monday 30 July 2007 [www.publications.parliament.uk/pa/cm200607/cmselect/cmenvaud/460/460.pdf](http://www.publications.parliament.uk/pa/cm200607/cmselect/cmenvaud/460/460.pdf).
- 13 [www.official-documents.gov.uk/document/cm72/7225/7225.pdf](http://www.official-documents.gov.uk/document/cm72/7225/7225.pdf).
- 14 The CCC was set up in 'shadow' form in March 2008 before it was formally constituted under the Act.
- 15 Interview DECC 2 October 2009.
- 16 Interview FOE, 7 October 2009.
- 17 Interview DECC 2 October 2009.
- 18 HM government, Explanatory Notes to the Climate Change Act 2008 [www.opsi.gov.uk/acts/acts2008/en/ukpgaen\\_20080027\\_en\\_1.htm](http://www.opsi.gov.uk/acts/acts2008/en/ukpgaen_20080027_en_1.htm) at para 3.
- 19 See HM government The UK Low Carbon Transition Plan - National Strategy for climate and energy (2009) for details of the UK's policies and programmes on climate change [www.decc.gov.uk/en/content/cms/publications/lc\\_trans\\_plan/lc\\_trans\\_plan.aspx](http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx).
- 20 Section 99(1). Certain provisions of the Act apply only to certain parts of the UK: section 99(2), (3) and (4).
- 21 Details of the arrangements between the national authorities (the UK government and the Devolved Administrations) for the purposes of the Climate Change Act can be found in the Concordant Agreement between HM government, the Scottish government, the Welsh Assembly government and the Northern Ireland Executive dated 1 December 2008. This report uses the term 'UK government' and 'government' in a general sense to refer to the duties and obligations of the Secretary of State established in the Climate Change Act 2008.
- 22 Information from the Scottish government on the legislation is available at: [www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/climatechangeact](http://www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/climatechangeact).
- 23 Under section 24, the targeted greenhouse gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, and any other greenhouse gas designated by the Secretary of State. The base years for GHG other than carbon dioxide are set out in section 25 together with the power to amend base years in response to significant developments in European or international law or policy. Section 27 of the Act sets out a full definition of "net UK carbon account" and the calculation of the net UK carbon account is described in further detail below.
- 24 Section 15: duty to have regard to need for UK domestic action on climate change.
- 25 Section 2. The process for amending the 2050 target or the baseline year is set out in section 3. Before making an order amending the 2050 target or the baseline year, the government must seek and take into account the advice of the CCC and consult with the national authorities in Scotland, Wales and Northern Ireland. If the government does not follow the advice of the CCC, it must publish a statement setting out the reasons for its decision.
- 26 Section 2(2)(a).
- 27 Section 2(2)(b).
- 28 Section 2(4).
- 29 The Climate Change Act 2008 (2020 Target, Credit Limit and Definitions) Order 2009 amended the level of the 2020 target and extended the target to cover all GHG.
- 30 Sections 6 and 7.
- 31 Section 3. The order amending the target is made by statutory instrument and is subject to the affirmative resolution procedure, which requires a draft of the order to be approved by both Houses of parliament: section 2(6).
- 32 Section 4(1)(a).
- 33 Section 4(1)(b).
- 34 Section 4(2)(a).
- 35 Section 4(2)(b).
- 36 Sections 5 and 8.
- 37 Section 5(1)(c).
- 38 Section 9.
- 39 This is confirmed in section 10(7) which states "Nothing in this section is to be read as restricting the matters that the Secretary of State or the Committee may take into account".
- 40 Section 13.
- 41 Section 11.
- 42 Section 12.
- 43 Section 14.
- 44 "UK emissions" are emissions of a GHG from sources in the UK: section 29.
- 45 "UK removals" are removals of a GHG from the atmosphere due to land use, land use change or forestry activities in the UK: section 29.

46 "Net UK emissions" are the amount of UK emissions of a GHG for the period reduced by the amount of UK emissions for the period: section 29.

47 Section 16.

48 HM government, Explanatory Notes to the Climate Change Act 2008 [www.opsi.gov.uk/acts/acts2008/en/ukpgaen\\_20080027\\_en\\_1.htm](http://www.opsi.gov.uk/acts/acts2008/en/ukpgaen_20080027_en_1.htm) at para 80.

49 "Carbon units" are units representing a reduction in an amount of GHG emissions, the removal of an amount of GHG emissions, or an amount of GHG emissions allowed under a scheme or arrangement imposing a limit on such emissions: section 26. A scheme imposing a limit on GHG emissions would include the EU emissions trading scheme (ETS).

50 Section 37.

51 Section 18.

52 Section 19.

53 Section 20.

54 Section 17(1).

55 Section 17(2).

56 Section 21.

57 Section 22.

58 Section 23.

59 HM government, Explanatory Notes to the Climate Change Act 2008 [www.opsi.gov.uk/acts/acts2008/en/ukpgaen\\_20080027\\_en\\_1.htm](http://www.opsi.gov.uk/acts/acts2008/en/ukpgaen_20080027_en_1.htm) para 135.

60 Section 26.

61 Section 27.

62 Section 27(1) provides that "In this Part the "net UK carbon account" for a period means the amount of net UK emissions of targeted greenhouse gases for the period—(a) reduced by the amount of carbon units credited to the net UK carbon account for the period in accordance with regulations under this section, and (b) increased by the amount of carbon units that in accordance with such regulations are to be debited from the net UK carbon account for the period."

63 DECC (2009) Carbon Accounting Guidance [www.decc.gov.uk/Media/viewfile.ashx?FilePath=Consultations\Carbon%20Accounting\1\\_20090423094220\\_e\\_@@\\_carbonaccountingguidance.pdf&filetype=4](http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Consultations\Carbon%20Accounting\1_20090423094220_e_@@_carbonaccountingguidance.pdf&filetype=4).

64 Section 26(1). Carbon units are specified in regulations and represent—(a) a reduction in an amount of GHG emissions; (b) the removal of an amount of GHG emissions; (c) an amount of GHG emissions allowed under a scheme or arrangement imposing a limit on such emissions. The relevant regulations are the Carbon Accounting Regulations 2009 [www.opsi.gov.uk/si/si2009/uksi\\_20091257\\_en\\_1](http://www.opsi.gov.uk/si/si2009/uksi_20091257_en_1)

65 Section 11.

66 The first set of regulations, the Carbon Accounting Regulations 2009, entered into force in May 2009. See: [www.opsi.gov.uk/si/si2009/uksi\\_20091257\\_en\\_1](http://www.opsi.gov.uk/si/si2009/uksi_20091257_en_1).

67 Section 28.

68 The affirmative resolution procedure is a procedure for making secondary legislation such as orders or regulations. In the affirmative resolution procedure, a statutory instrument cannot become law unless specifically approved by a resolution of both houses of parliament. The statutory instrument cannot be amended in the procedure; it can only be approved, annulled or withdrawn.

69 Section 30.

70 Section 30(3).

71 Section 32. Schedule 1 to the Act sets out further provisions about the Committee relating to such matters as membership of the committee, term of office, remuneration, secretariat, procedures, reports and accounts, publication of advice. Section 39 sets out various general ancillary powers of the Committee and empowers the Committee to do anything that appears necessary or appropriate for the purpose of, or in connection with, the carrying out of its functions.

functions, the Committee may gather information, carry out and commission research and analysis, and publish the results of its activities: section 39(3). The Committee must have regard to the desirability of involving the public in the exercise of its function: section 39(4).

72 Paragraph 1(3), Schedule 1.

73 Under paragraph 26 of Schedule 1, the Committee is entitled to withhold information that could be withheld under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

74 Section 33.

75 Section 34.

76 Section 35.

77 Section 36.

78 Section 36(2).

79 See CCC (2009) *Meeting Carbon Budgets - the need for a step change* [www.theccc.org.uk/reports/progress-reports](http://www.theccc.org.uk/reports/progress-reports).

80 Section 37.

81 Section 38.

82 Section 41(5).

83 Section 41(4).

84 Interview with the CCC 19 October 2009. For further details see the Committee on Climate Change Corporate Plan 2009-12 available at [www.theccc.org.uk/about-the-ccc/the-committee](http://www.theccc.org.uk/about-the-ccc/the-committee).

85 Interview Committee on Climate Change 19 October 2009.

86 [www.decc.gov.uk/en/content/cms/about/about.aspx](http://www.decc.gov.uk/en/content/cms/about/about.aspx).

87 Defra [www.defra.gov.uk/environment/climate/index.htm](http://www.defra.gov.uk/environment/climate/index.htm).

88 [www.theccc.org.uk/reports/building-a-low-carbon-economy](http://www.theccc.org.uk/reports/building-a-low-carbon-economy)

89 HM Treasury and HM government, Building a low-carbon economy: Implementing the Climate Change Act 2008, April 2009 [www.hm-treasury.gov.uk/bud\\_bud09\\_carbon.htm](http://www.hm-treasury.gov.uk/bud_bud09_carbon.htm).

90 SI 2009/1259.

91 Building a low-carbon economy: Implementing the Climate Change Act 2008, April 2009. The Climate Change Act 2008 (2020 Target, Credit Limit and Definitions) Order 2009 (SI 2009/1258) sets at zero the net amount of carbon units that may be credited to the net UK carbon account for the 2008–2012 budgetary period (excepting allowances under the EU emissions trading scheme).

92 Building a low-carbon economy: Implementing the Climate Change Act 2008, April 2009.

93 SI 2009/1257.

94 [www.decc.gov.uk/Media/viewfile.ashx?FilePath=Consultations\Carbon%20Accounting\1\\_20090423094220\\_e\\_@@\\_carbonaccountingguidance.pdf&filetype=4](http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Consultations\Carbon%20Accounting\1_20090423094220_e_@@_carbonaccountingguidance.pdf&filetype=4).

95 [www.decc.gov.uk/en/content/cms/publications/lc\\_trans\\_plan/lc\\_trans\\_plan.aspx](http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx).

96 [www.theccc.org.uk/reports/progress-reports](http://www.theccc.org.uk/reports/progress-reports).

97 In relation to coal power and CCS, the government announced proposals, the framework for the development of clean coal, in April 2009 which are still subject to consultation and decisions: [www.decc.gov.uk/en/content/cms/consultations/clean\\_coal/clean\\_coal.aspx](http://www.decc.gov.uk/en/content/cms/consultations/clean_coal/clean_coal.aspx). However, it should be noted that at this time, the issue of new coal power stations was already a significant political issue in the UK and was the focus of a major campaign opposing plans to consent new "capture ready" coal power stations.

98 Interview DECC 2 October 2009.

99 Interview with the CCC 19 October 2009.

100 Interview with the CCC 19 October 2009.

- 101 Interview FOE 7 October 2009. See section 1 of this report for a note on the UK's targets and goals prior to the Climate Change Act.
- 102 Interview DECC 2 October 2009. An analogy was made with monetary policy where decisions are taken by experts not politicians. Ultimately under the Act decisions are made by politicians but a significant role is created for independent experts on the CCC who advise the government on setting carbon budgets. Carbon budgets are set by statutory order under the affirmative resolution procedure, so parliament also has a role in that it can accept or reject a draft order.
- 103 Interview DECC 2 October 2009.
- 104 Interview DECC 2 October 2009.
- 105 See the low carbon transition plan: a national strategy for climate and energy and related documents including the UK renewable energy strategy, the low carbon industrial strategy, and the low carbon transport strategy available at [www.decc.gov.uk](http://www.decc.gov.uk).
- 106 Some examples of legislative provisions which enable policies and programmes to reduce emissions are contained in Parts 3 and 5 of the Climate Change Act.
- 107 Interview DECC 2 October 2009.
- 108 The CCC (2008) Building a low-carbon economy - the UK's contribution to tackling climate change. See Chapter 1 – Setting a 2050 Target.
- 109 As above, chapter 1 of the CCC report.
- 110 As above, see executive summary.
- 111 As above, see chapter 1 of the CCC report.
- 112 The first carbon budget applies this by setting a carbon budget that is tighter than the UK's obligation under the Kyoto Protocol for the same period (22% reduction compared with a 12.5%).
- 113 Article 2, United Nations Framework Convention on Climate Change.
- 114 See CCC (2009) Meeting Carbon Budgets - the need for a step change for discussion of areas where a step change in policy response is considered necessary.
- 115 Samuel Fankhauser, David Kennedy and Jim Skea "The UK's carbon targets for 2020 and the role of the Committee on Climate Change" in Policy Network (2009) Building a low carbon future: The politics of climate change.
- 116 Interview DECC 2 October 2009.
- 117 HM government (2007) *Taking forward the UK Climate Change Bill: The government response to pre-legislative scrutiny and public consultation*.
- 118 For a full discussion of judicial review claims under the law of England and Wales see Communication by ClientEarth to the Aarhus Convention Compliance Committee available at [www.unece.org/env/pp/compliance/Compliance%20Committee/33TableUK.htm](http://www.unece.org/env/pp/compliance/Compliance%20Committee/33TableUK.htm). The decision of the Committee is pending.
- 119 *Friends of the Earth v Secretary of State for Business, Enterprise and Regulatory Reform* [2008] EWHC 2518 (Admin). FOE challenged the failure of the government over expected failures to meet commitments on fuel poverty under the Warm Homes and Energy Conservation Act 2000. The Court held that it could not review policy decisions of the government about how they decided to go about implementing the fuel poverty strategy, including the requirement that efforts be made to achieve targets as far as reasonably practicable, and that spending implications of decisions as to how to implement the strategy were a matter for the government not the Court.
- 120 Samuel Fankhauser, David Kennedy and Jim Skea "The UK's carbon targets for 2020 and the role of the Committee on Climate Change" in Policy Network (2009) *Building a low carbon future: The politics of climate change*.

ClientEarth is a non-profit environmental law organisation based in London and Brussels. We are activist lawyers working at the interface of law, science and policy. Using the power of the law, we develop legal strategies and tools to address major environmental issues.

As legal experts working in the public interest, we act to strengthen the work of our partner organisations. Our work covers climate change and energy system transformation, protection of oceans, biodiversity, forests and environmental justice.

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