

sustainable development commission

SDC submission to the
Environmental Audit Committee

Climate Change – The UK
Programme 2006: SDC
response

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SDC input into the Review process

1. The UK Government¹ published a consultation document on the Review of the Climate Change Programme (CCP) in December 2004. This identified a shortfall of around 10 million tonnes of carbon (MtC) between projected carbon emissions and the domestic target for a 20% cut in emissions by 2010. **SDC input was therefore designed around a 10 MtC shortfall, although this was later revealed to be an under-estimate.**
2. The Sustainable Development Commission (SDC) prepared a detailed submission to this Review, which was published in May 2005². This drew on work from across our energy, transport and buildings work programmes and contained a wide range of detailed policy recommendations.
3. SDC Commissioners held regular meetings with Ministers and high-ranking officials throughout the Review process, pointing out areas of concern and lending support to new policy proposals.
4. The SDC Secretariat played an active role in the Inter-department Analysts Group (IAG), attending meetings, commenting on policy appraisals, and making further suggestions. Unfortunately the SDC's participation in this group was restricted towards the end of the Review process, which limited our ability to comment on the final range of policies that was announced.
5. The SDC Secretariat was also part of the Defra-led Stakeholder Group, which held three meetings over the course of 2005.
6. In February 2006 the SDC prepared a brief summary for Ministers on what we

¹ The term 'Government' is used to refer to the UK Government in this document unless otherwise stated.

² SDC (2005). *Climate Change Programme Review: the submission of the Sustainable Development Commission.*

believed were the key measures to get the CCP back on track.

SDC position on climate change

7. There is increasing recognition that the long-term target for a 60% cut in carbon emissions by 2050 will not be sufficient to avoid 'dangerous climate change'. The SDC will be looking at this issue over the summer and will publish a position paper on climate change in due course.
8. Furthermore, it is now very clear that climate change is not a 'long-term' problem that can be deferred for future generations to deal with. Climate change impacts are already being observed, and the threat to global populations and ecosystems is real and immediate.
9. In light of this fact, the target for a 20% cut in emissions by 2010 may not be sufficiently ambitious when viewed from a scientific perspective. **The SDC therefore sees the 2010 target as an absolute minimum considering the likelihood that much greater cuts will be required over the following 20 years.**
10. However, the SDC recognises the strong leadership shown by the Government when setting the 20% target, and the fact that **UK action on climate change must be part of a much greater international effort.** It is on this basis that we support the 20% target, and we have assessed the CCP 2006 accordingly.
11. It is increasingly clear that current policies on climate change are not delivering absolute cuts in carbon emissions. This is highlighted by the fact that the 10 MtC projected shortfall from the 2010 target at the beginning of the Review process became 15 MtC by the time the revised CCP was published in March 2006.
12. This presents problems when undertaking an analysis of the CCP 2006, as many of the measures we

originally recommended are now insufficient to deliver the carbon reductions required.

13. This lends added weight to our argument that **current methods of dealing with climate change are incompatible with the task at hand.**
14. Climate change is a cross-departmental issue with huge implications for all areas of public policy. The current system puts very little responsibility for tackling climate change with final consumers, which positions Government departments against each other as they try to achieve a cross-departmental goal with as little pain as possible for their own constituents.
15. In addition, there is little incentive for local or regional consideration of climate change issues. This leads to patchy performance between local authorities, and a Regional Development Agency system that is heavily focused on economic growth above all else, even when this could be detrimental to climate change objectives.
16. Continuation of this approach will ultimately fail to deliver the emissions reductions required. This is why **the SDC has recommended that economy-wide emissions trading should be the policy framework within which action on climate change takes place.** This is most recently explained in our Energy Review submission.
17. We are also interested in the role that 'personal carbon trading' could play as part of an economy-wide emissions trading scheme. The SDC will return to this issue in our forthcoming position paper on climate change.

SDC submission to EAC inquiry

18. The Environmental Audit Committee (EAC) announced its intention to hold an inquiry into the Climate Change Programme 2006 on 27th April 2006.

19. This submission is based on the three questions posed by the EAC inquiry, along with an analysis of the success of the CCP 2006 in relation to the recommendations made by the SDC in May 2005. We have not addressed every SDC recommendation in detail, but have focused on those areas where action is critical.

The three questions from the EAC inquiry are:

- The Prime Minister continues to identify climate change as "probably the greatest long-term challenge facing the human race". Does the 2006 Climate Change Programme represent a realistic strategy to prepare the UK to meet this challenge?
 - Does the Government need to do more, and if so what, to try to ensure that it meets the 20% reduction in carbon dioxide emissions by 2010?
 - To what extent, if at all, will the outcome of the Energy Review affect the implementation of the Climate Change Programme?
20. Question 1: Does the 2006 Climate Change Programme represent a realistic strategy to prepare the UK to meet this challenge? **The SDC does not believe that the CCP 2006 is a sufficient set of policies to prepare the UK to meet the challenge of climate change.**
 21. Current figures suggest that the UK will only achieve 16.2% cut in carbon emissions from 1990 levels, and this is after five years of concerted efforts by the UK Government and the Devolved Administrations. Indeed, the picture is much worse than this: carbon emissions in 2004 were 3.5 MtC higher than in 1995, and it was the period between 1990 and 1995 where substantial reductions were made.
 22. It is therefore clear that the CCP has failed to deliver absolute cuts in carbon

- emissions and has only succeeded in slowing the growth in emissions that would otherwise have occurred.
23. The Government stands to meet its Kyoto obligations solely through carbon reductions achieved up to 1995 (largely through fuel switching in the power sector and deindustrialisation) along with sustained reductions in emissions from other greenhouse gases, primarily methane and hydrofluorocarbons.
 24. These trends represent a completely inadequate preparation for the much larger cuts in carbon emissions that will be required over the next 20 years or so. **This delay enhances the prospect that more painful and costly actions will be required in the longer term to correct the mistakes currently being committed.** For example, the emissions implications of new buildings and power plants, both of which have long lifetimes.
 25. **The SDC recognises that reductions in UK carbon emissions will have only a small effect on global emissions, and that in the longer term an international effort of momentous proportions is required.**
 26. However, it is also our belief that the large majority of near-term emissions savings can be made at net benefit to the UK economy through savings in lifetime energy costs and through innovation and export benefits. For example, domestic measures in the Climate Change Programme 2000 (mainly energy efficiency) were evaluated as having a net benefit of over £400/tCe³.
 27. **Furthermore, the UK is seen as a leader on climate change issues and this confers a responsibility to show that substantial emissions reductions are possible without sacrificing peoples' quality of life.**

³ Defra (2006). *Synthesis of Climate Change Policy Evaluations*, p. 23.

28. Question 2: Does the Government need to do more, and if so what, to try to ensure that it meets the 20% reduction in carbon dioxide emissions by 2010? **The Government will need to do much more to ensure it meets the 2010 target, particularly after allowing for further leakage in existing measures.** The following sections deal with the SDC's recommendations to the Government prior to the Review of the CCP and more recently.
29. Question 3: to what extent, if at all, will the outcome of the Energy Review affect the implementation of the Climate Change Programme? The SDC believes that the 2006 Energy Review is a unique opportunity for the Government to show how it intends to manage the transition to a low carbon energy supply over the long-term. The SDC presented a detailed submission to the Department of Trade & Industry's (DTI) Energy Review team in April 2006⁴, which built on our earlier work on nuclear power⁵.

Targets

30. As noted in paragraph 10 the SDC strongly supports the domestic target for a 20% cut in carbon emissions by 2010. We also recommended that the Government adopt three other goals:
 - a 60% cut in carbon emissions from buildings (over 1990 levels) by 2050
 - a 50% cut in carbon emissions from road transport by 2025 (over 1990 levels) through a combination of technological and behavioural change
 - a carbon neutral public sector by 2020
31. The aim of these goals was to provide a clear framework for long-term action in

⁴ SDC (2006). *Meeting the challenge: energy policy for the 21st Century*.

⁵ SDC (2006). *The role of nuclear power in a low carbon economy*.

the household and transport sectors, with clear leadership through the public sector and through the proposed 'growth areas'.

32. Of these, the Government has gone some way towards our recommendation for a carbon neutral public sector by 2020 with the announcement on 12th June 2006 that the Government Estate would be carbon neutral by 2012. However, we remain particularly concerned at the absence of any long-term strategy to target emissions from transport and existing buildings.

Business

33. The SDC was strongly supportive of the EU Emissions Trading Scheme (EUETS) as a central plank of the Government's Climate Change Programme. However, we were critical of the process by which National Allocation Plans (NAPs) were set in the first phase (2005-7), which encouraged departmental wrangling and led to the confusion over the UK's legal challenge to the EU.
34. The SDC recommended a NAP in phase two (2008-12) that was commensurate to the contribution of the EUETS sector to the 20% carbon reduction target (46%). This led to a recommendation for a cap 3 MtC/year less than phase one. However, by March 2006 there was an additional 5 MtC gap in the emissions projections, and the Government had ruled out many of the other measures suggested to it during the consultation process on cost effectiveness grounds.
35. **The SDC therefore welcomed the announcement on 29th June 2006 that the Government has set the NAP to achieve 8 MtC of carbon savings from the EUETS during 2008-12. We believe the UK Government has set a benchmark which other countries will have to live up to, and we call on the UK Government and the European**

Commission to ensure that other countries' NAPs are equally ambitious.

36. **The SDC recommended that as part of a package of support for renewables, 10% of the emissions permits for phase two of EUETS should be auctioned.** We suggested that the proceeds should be allocated to a carbon-saving fund aimed at technologies and measures unlikely to benefit from market-based instruments. We also suggested that the revenue built up from Non-Fossil Fuel Obligation (NFFO) payments, estimated to be worth around £880m by 2010, should be invested in the same fund.
37. **We therefore welcome the Government's announcement that 7% of EUETS permits will be auctioned, and the intention to create an Environmental Transformation Fund.** We hope that the funds allocated will be equal to, or greater than, the revenue raised from the auctioning of EUETS permits. **We await further details on how the Government intends to spend the £880m windfall from the NFFO.**
38. The SDC recognises that coal will continue to be used for electricity generation for sometime, despite the limiting forces of the EUETS and the Large Combustion Plants Directive. We therefore recommended in May 2005, and again in April 2006, that the **Government give serious consideration to the role that carbon capture and storage (CCS) could play in eliminating carbon emissions from fossil fuel combustion**, as a bridge to a more sustainable low carbon future.
39. There is a strong international imperative to develop CCS technologies so that the carbon effects of coal-based developments in countries such as China can be reduced. The SDC will be looking to the Energy Review to bring forward enabling policies on CCS.
40. **On combined heat and power (CHP), the SDC remains very disappointed by the Government's apparent lack of enthusiasm for meeting its own target**

for 10GWe of good quality CHP by 2010. Capacity at the end of 2004 stood at 5.6GW⁶.

41. We believe there is inadequate resource in Defra for the necessary CHP analysis and policy development. The Energy Review consultation document dismissed CHP's potential contribution as limited. In fact, **the absence of more CHP is a serious market and policy failure when viewed from a climate change and energy security perspective, and the Government has been singularly lacking in realising and addressing this reality.**
42. Currently, 65% of energy is wasted before it even reaches our homes due to the inherent inefficiency of centralised electricity generation. A more decentralised energy system using CHP would dramatically reduce this wastage, thus reducing carbon emissions and gas use.
43. **Action on CHP is needed as a matter of urgency.** There are currently seven gas-fired CCGT projects awaiting consent from the DTI. Their combined capacity once operational will be 8.1GW. This equates to a huge carbon lock-in, and while these plant will in part be displacing inefficient coal output (with a substantial carbon saving), there will still be huge amounts of wasted energy when compared to using the same gas in CHP plant. In addition, there is unlikely to be any requirement that they be made CCS-ready to enable zero carbon output in the future.
44. **On the Climate Change Levy (CCL), the SDC recommended that this should be raised in line with inflation,** and additionally for those sectors not covered by the EUETS.
45. This latter recommendation has been overtaken by the proposal (initially from the Carbon Trust, but taken on by the Government) for a new UK-based emissions trading scheme, now called

the Energy Performance Commitment (EPC), which the SDC strongly supported through the analytical process. It would cover those large corporate and public sector emitters not covered by the EUETS.

46. **The SDC has made strong representations in favour of the proposed Energy Performance Commitment and we support its introduction as soon as is practically possible.**
47. **The SDC welcomes the announcement in Budget 2006 that the CCL will rise in line with inflation.** The CCL would be unnecessary if economy-wide emissions trading existed, but it plays a valuable role in the intervening period.
48. **On Climate Change Agreements (CCAs), the SDC has been supportive of this policy measure,** which the Government estimates will save 2.9 MtC by 2010.
49. However, our recommendation that CCAs could be tightened and widened to cover other businesses has not been taken up, and the introduction of the EPC may overtake this recommendation. There is concern at the level of overlap with other measures (specifically the EUETS and the proposed EPC) and we accept that CCAs (which rely on the CCL) may not be the preferred policy measure in the longer term.

Households

50. The SDC believes that there needs to be a step change in householder engagement on energy and climate change issues to motivate action on reducing carbon emissions. We recommended in our submission that the Energy Efficiency Commitment in phase 3 (EEC3) should be tripled from the level in EEC1, with specific efforts made to increase take-up of the offers available, through schemes such as Council Tax rebates.
51. However, in light of recent data showing the success of the EEC

⁶ DTI (2005). *Digest of UK Energy Statistics*.

- programme, and the continuing rise in household carbon emissions, **we recommended in our Energy Review submission that EEC3 should now be raised by four times the level in EEC1 to deliver 1.5 MtC of savings by 2010.**
52. We are pleased to note the Government's announcement that EEC3 will be raised to deliver between 0.9 to 1.2 MtC per year by 2010, which at the upper level is equal to a tripling of EEC1. **However, we hope that the Energy Review will announce a further push on EEC3 to deliver the additional savings we have recommended.** The Government also intends to introduce further flexibility into EEC, which we support.
 53. **We believe that the Government now needs to seriously consider alternatives to EEC which would deliver absolute reductions in energy use. The proposal for an Energy Saving Obligation (which would place a cap on suppliers) is one such option, and the SDC is interested in seeing how this might work in practice.**
 54. We are also interested to hear how the Government intends to encourage the domestic energy services model, particularly in light of our recommendations to the Energy Review for greater decentralised energy provision.
 55. On market transformation of consumer appliances, the SDC highlighted the success of EEC in stimulating demand for A-rated appliances and we lent our support to the use of enhanced energy labelling.
 56. **However, we also pointed to the role of regulation in helping to remove certain products from the market.** This has been further explored by the Sustainable Consumption Roundtable, who introduced the concept of 'choice editing' to help consumers make the right decisions.
 57. The SDC is concerned that sustainable development criteria have not been systematically included throughout the DTI's work on innovation. For example, a number of opportunities have been missed to reduce carbon emissions through technological innovation – for example, with digital set-top boxes. With the number of boxes expected to rise from 13m to 85m by 2020, the energy wastage could amount to £280m, leading to 0.4 MtC of carbon emissions by year.
 58. We are therefore pleased to note the Government's commitment (made at Gleneagles in 2005) to a 1-Watt Initiative for consumer electronics and the announcement of voluntary schemes in the retail sector to encourage take-up of more efficient devices.
 59. However, we still believe that the Government should consider removing the worst offending products from the market when there are cost-effective alternatives. We have also recommended in our submission to the Comprehensive Spending Review (CSR) that HM Treasury and the DTI agree a Public Service Agreement (PSA) which ensures that future innovation funding delivers on sustainable development objectives.
 60. **The SDC was very supportive of novel demand-side solutions to reducing carbon emissions such as those proposed by Dynamic Demand⁷.** We are pleased to note that the Climate Change and Sustainable Energy Bill includes a requirement for the Government to conduct a formal assessment of frequency response technologies and report back to Parliament.
 61. **Building regulations are an essential tool in ensuring a level playing field on the road to zero carbon buildings.** The long life of buildings makes delays in

⁷ Dynamic Demand is a not-for-profit organisation supported by a charitable grant from the Esmée Fairbairn Foundation.

this area very costly, by adding to the retrofit burden in the future.

62. **The SDC recommended that the Government give an indication of the direction of building regulations**, to provide certainty to the construction industry and facilitate forward planning. We indicated that **the long-term aim should be virtually zero carbon buildings by 2015**, incorporating a zero heat standard, and self-generation of a large proportion of electricity needs.
63. In our submission to the Energy Review the SDC has gone one step further as a result of our continuing work in this area. **We now recommend that the Government announce a zero heat standard from 2010, and a zero carbon standard from 2015.**
64. We also recommend that **the Code for Sustainable Homes be used as a way to set the future direction of building regulations**. So, publicly-funded housing would need to reach a zero heat standard immediately, and a zero carbon standard by 2010.
65. **We are very disappointed to note that the CCP 2006 makes no reference to a long-term aim for building regulations. We believe that the Government needs to address this issue as a matter of urgency.**
66. The SDC criticised the Sustainable Communities Plan and the Decent Homes programme for failing to adequately incorporate environmental sustainability and carbon reduction measures. For example, **the Decent Homes programme has energy efficiency standards that are well below those for new-build.**
67. The SDC has more recently recommended that the Government **extend the Code for Sustainable Homes to existing buildings**⁸. This could be integrated into existing and forthcoming policies, such as the Home Condition Report (owner-occupiers), the Decent Homes Standard (social housing), and the Green Landlords Scheme (private rented sector).
68. Unfortunately, the shortcomings we have identified with the Sustainable Communities Plan and the Decent Homes Standard have not yet been addressed by Government. The SDC is carrying out an in-depth review of the Sustainable Communities Plan which will report in late 2006.
69. On the **new 'growth areas'** (announced as part of the Sustainable Communities Plan), **the SDC recommended that these be made carbon neutral by offsetting the projected additional carbon emissions over the next two decades** with energy efficiency programmes in existing housing stock.
70. The Government has announced a feasibility study on making the Thames Gateway a low or zero carbon development. This would go some way to meeting our recommendations, and we encourage the Government to be ambitious in its final proposals.
71. Our 2005 submission to the CCP Review included a recommendation for the **Government to formally consider, by 2007, the role that Domestic Tradable Quotas (DTQs) might play in achieving the deep cuts in carbon emissions required in the longer term**. Variations of the DTQ concept have taken many terms, and more recently the SDC has taken to using the term 'personal carbon trading' to describe this strand of thinking.
72. **We were disappointed to note that the Climate Change Programme 2006 contained no reference to DTQs or personal carbon trading**, despite strong Ministerial interest. This absence of formal recognition limits the extent to

⁸ Detailed recommendations can be found in our publication "Stock Take: delivering improvements to existing housing" (2006); a summary can also

be found in our submission to the 2006 Energy Review.

which the research community can investigate this concept in more detail.

73. The SDC has reiterated its support for a more detailed consideration of downstream personal carbon trading as part of our submission to the Energy Review, and we continue to take an active interest in this area. We are hoping to commission some work looking at terminology, and how the concept can be better communicated.

Transport

74. **The SDC was cautiously optimistic of the proposal for including both aviation and surface transport in the EUETS.** This would be a big step towards an economy-wide emissions trading scheme.
75. However, we expressed concern that efforts to secure this change would divert attention from the immediate action that was required to limit growth in aviation and reduce emissions from the transport sector. This concern has been validated by the Government's reluctance to tackle these sectors in the Review process.
76. The CCP 2006 document shows that greenhouse gas emissions from the transport sector have increased by 12% between 1990 and 2004. This increase is expected to continue – in the absence of new measures greenhouse gas emissions are forecast to be 15.6% above 1990 levels in 2010.
77. The CCP 2006 document included two new, quantified transport measures:
- **the Renewable Transport Fuel Obligation (RTFO)** (saves between 1-1.6 MtC depending on assumptions)
 - **further improvements to the fuel efficiency of new vehicles** (expected to save 0.1 MtC)
78. Existing measures include:

- Voluntary Agreement package including graduated VED (estimated to save 2.3 MtC)
- Fuel duty escalator (in place between 1993 and 1999 and estimated to save 1.9 MtC).

New measures

79. The SDC supports the need to **increase the proportion of biofuels in the UK fuel mix in line with the current proposals for the RTFO, provided three main safeguards are in place:**
- **The verification procedures, which accompany the mandatory reporting and proposed standards associated with the RTFO, must be rigorous**
 - They must cover complex issues such as the **potential for deforestation and societal impacts**
 - The RTFO should be designed with **graduated incentives for lower carbon fuels** from the outset to provide an incentive for maximum carbon savings

Change to existing measures

80. **The SDC is pleased that Budget 2006 introduced a new higher band of VED for the most polluting new vehicles.** However, while the Government has widened the differential between each band, **the changes are completely insufficient to stimulate the required level of behavioural change.**
81. Research undertaken by the SDC as part of our 2005 submission proposed a **£300 gap should be created between each band.** We estimated that this would achieve carbon savings of around 0.4-0.8 MtC, a substantial contribution to carbon reduction targets.
82. **The SDC therefore hopes to see a much greater widening of the differential between VED bands in Budget 2007.**

The need for further measures

83. Transport emissions would increase by 10.3% assuming the CCP 2006 saves 1.7 MtC.
84. It is therefore clear that even with the proposed new measures, the increased contribution from the transport sector is substantial – and this does not include the contribution from international aviation. The SDC is therefore surprised that greater consideration was not given to further reductions, as outlined in our 2005 submission. We consider these below.
85. **We recommended that a clear national strategy on traffic reduction must be developed**, which should include demand management and behavioural change measures. Our analysis suggested that around 0.5 MtC/year could be saved. The cost-benefit analysis was very favourable. **Further benefits include reductions in congestion, improvements in air quality and increased levels of physical activity.**
86. We were very disappointed by the limited consideration given in the Review process to behavioural change measures, and the lack of quantification of the significant benefits that could be achieved with the right impetus. We recommend, as a matter of urgency, that the Government increases policy interventions to stimulate behavioural change.
87. Adjusting road speed limits would also reduce carbon emissions (our estimate was 1.5 MtC) and the SDC suggested that a full assessment should be conducted across all road types. **There was no mention of the impact of speed on vehicle efficiency during the Review process** and we, again, recommend that the Government gives this much greater consideration in the future.
88. We welcome the mention of road pricing in the CCP 2006 document. **However, it is essential that road pricing helps reduce emissions as well as congestion.** Therefore, the scheme must

also consider distance travelled and vehicle efficiencies.

Aviation

89. The CCP 2006 document highlights that UK aviation could contribute some 16 to 18 MtC per year by 2030, and that the climate change impact of aircraft emissions are 2-4 times greater than that of carbon dioxide emissions alone.
90. **There is a serious risk that, left unconstrained, the growth in aviation emissions will eliminate any reductions in carbon emissions elsewhere in the economy.**
91. The SDC recognises that progress has been made on efforts to include aviation into the EUETS. However, **we are concerned over the possibility of delay, and as a result aviation not being included in the EUETS until 2012.** This would be a very serious policy failure – six more years of inaction on aviation is simply unjustifiable.
92. **We are also concerned over the treatment of non-CO₂ emissions, particularly the impact of cirrus clouds and contrails.** Greenhouse gas emissions from international aviation are not assigned under the Kyoto Protocol, and this could make aviation's inclusion in phase two of EUETS (2008-2012) difficult.
93. **One solution, which the SDC fully supports, is a separate, closed trading scheme for aviation emissions. This could operate as a test trial during 2008-2012.** Aviation's inclusion in the wider EUETS could then be considered when decisions on the next phase of the Kyoto Protocol are being made.
94. If attempts to include aviation in the EUETS fail, we recommend immediate introduction of an emissions charge on domestic and international flights.
95. Recognising that there are substantial climate change impacts associated with

non-CO₂ emissions, the precautionary principle means that scientific uncertainty should not be used as a reason for inaction. Demand management measures are needed immediately. Waiting for quantification of non-CO₂ impacts to whilst continuing with aviation expansion is not acceptable.

96. **Therefore, the Government must reconsider its aviation expansion plans.** It should also consider the removal of the all subsidies to the airline industry. For example, including VAT on domestic flights and putting an end to duty free goods for flights outside the EU.
97. The SDC will be doing further work on aviation during 2006 as part of our contribution to the Government's Progress Report on the Aviation White Paper.

Public sector

98. Our central recommendation in this area was for a carbon neutral public sector by 2020. However, we now believe that with the use of offsetting it would be possible for the Government to achieve **carbon neutrality across the whole public sector by 2015, and 2012 for the central Government estate.** Similar recommendations were made by the Sustainable Consumption Roundtable in May 2006. Offsetting would attach a price to carbon consumption, which should help stimulate public sector organisations into reducing their emissions.
99. The SDC's goal for the public sector is one of leadership, where public money is used to help encourage more sustainable products and services through engaged procurement.
100. **We are therefore pleased to note the Government's acceptance of our 2012 recommendation for a carbon neutral Government estate. However, there is still no commitment to extend carbon**

neutrality to the whole of the public sector, such as schools, hospitals, and the Armed Forces.

101. The Government also announced that the central Government estate would be expected to deliver a 30% reduction in carbon emissions by 2020. **The SDC believes that this target is not commensurate with the challenge at hand, and could end up being lower than the carbon reductions required from the economy overall.** It therefore fails the leadership test.

Agriculture, forestry and land management

102. The SDC made only a limited input in this area due to the absence of any specialist resource. This has since been rectified with the arrival of our Natural Resources team.
103. The SDC welcomes the increasing Government recognition that land management, in particular with regard to agriculture and forestry, has a significant role to play within the climate change agenda.
104. It is now imperative that this is translated into concrete actions, with greater clarity on the responsibility of different parties in delivering these.
105. **The 'polluter pays principle' follows that farmers should be responsible for reducing their greenhouse gas emissions.** However, as with other sectors the Government has an important role to play in identifying the extent to which this is possible and in helping the industry to adopt good practice that is affordable and effective. Moreover, **where the land manager goes beyond their required greenhouse gas reductions and provides a public 'good', for example through soil carbon storage, this service must be fully recognised and rewarded.**
106. **Quantified information on the extent to which greenhouse gas emissions can be**

- reduced and the specific land use measures that can achieve this remains limited.** Where uncertainty exists, for example around soil carbon, then research in this area and clear communication of the results must be a priority.
107. **The new England Rural Delivery Plan must include measures to tackle climate change at the earliest possible stage.** In accordance with the 'precautionary principle', it is better to include an imperfect set of measures within the environmental stewardship schemes now and to refine these later, than to wait for perfect knowledge before introducing the theme. It is also imperative that Government sends the right signals that it is serious about all sectors playing their role to address the challenges posed by climate change.
108. The SDC believes that all fiscal, regulatory and voluntary options for addressing climate change should be explored. However, as stated in paragraph 16, we believe that economy-wide emissions trading is the policy framework within which action on climate change should take place.
109. We therefore believe that the inclusion of the agriculture sector in emissions trading should be a top priority, whether as part of the EUETS or the UK-based Energy Performance Commitment scheme.
110. Biomass has the potential to play a significant role in the UK's efforts to address our energy needs sustainably. **We see a clear role for Government in facilitating the release of this potential and we welcome the Government's response to the Biomass Taskforce and look forward to rapid implementation.**
111. However, energy crops must not be overly promoted so as to disincentivise food production. **The SDC firmly believes that UK agriculture still has a role to play in food provision,** particularly when considering the global ecological footprint associated with the alternative of importing all our food.
112. **The Government needs to ensure that when considering the potential value of energy crops it gives proper consideration to all aspects of their sustainability.** Our recent work on biofuels⁹ sets out a number of concerns we have in this respect. In particular, detailed consideration needs to be given to the social and biodiversity impacts of energy crops.
113. **Whilst energy crops will have a role to play, these must not be promoted at the expense of energy efficiency and demand management measures which must continue to be the ultimate goal.** Similarly, we must use waste products where possible as a source of feedstock.
114. Government must also give regard to the use of the energy crops as some, for example local heat production, will be more sustainable than others. **There must be clear links made between the use of energy crops and the carbon savings made, based upon a full life cycle analysis.**
115. The SDC is keen to remain involved in addressing the challenges posed by the climate change and land use agenda, and we view the Rural Climate Change Forum as a good means through which to do this.

⁹ SDC's response to the Department for Transport on Biofuels and the Renewable Transport Fuels Obligation, May 2006