



House of Commons
Environmental Audit
Committee

**Emissions Trading:
Government Response
to the Committee's
Second Report of
Session 2006–07 on the
EU ETS**

Eighth Report of Session 2006–07

*Report, together with formal minutes and
Appendices*

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The Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by Her Majesty's Ministers; and to report thereon to the House.

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References

In the footnotes of this Report, references to oral evidence are indicated by 'Q' followed by the question number. References to written evidence are indicated by page number as in 'Ev12'. number HC *-II

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Summary

1. In February 2007 we published a report on *The EU Emissions Trading Scheme: Lessons for the Future*. Here we publish our thoughts on the Government's response, along with that response itself.
2. The use of trading to meet greenhouse gas reduction targets can be extremely complex. Unless the reporting of the results of emissions trading is transparent there is a risk that the complexities of such transactions might obscure whether they are reducing the full amount of emissions they ostensibly represent. We believe that it is especially important to get the transparency of reporting right at this stage given the Government's plans, under the forthcoming Climate Change Bill, to make use of international emissions trading within a national carbon budgeting system.
3. The Government reports that Phase I of the EU Emissions Trading Scheme (ETS) is having a significant impact on UK emissions. One way in which the Government has arrived at these figures is by way of "business as usual" (BAU) projections. A problem with this is that it is impossible to be certain about what level emissions would have grown to in an alternative future. We believe that where the Government uses BAU projections to calculate the UK impacts of the EU ETS, it should not publicise a single figure but rather give a range of possible savings, and be open about the uncertainties involved in such projections.
4. We are concerned by the Government's presentation in some publications of the purchase of carbon credits by the UK as being, in practice, synonymous with reducing emissions within the UK. Buying emissions credits from other countries does not *necessarily* translate into cutting emissions, at home or abroad; the value of carbon credits—i.e., whether one carbon credit really does represent one tonne of carbon dioxide—is only as real as the trading schemes which issue them are effective. It is widely believed that Phase I of the EU ETS has seen an over-allocation of carbon allowances. Buying allowances in these circumstances has been described as "buying hot air".
5. Even where trading schemes are well-designed, and purchasing carbon credits does fund equivalent cuts abroad, this should be clearly differentiated from making emissions cuts within the UK. This is necessary to ensure proper scrutiny of progress towards meeting domestic targets within this country. We remain concerned that the Government is not always making these distinctions truly explicit: in particular we were concerned by a graph in Budget Report 2007, which depicts UK emissions (taking "into account the effect of the EU ETS") in a way we have previously recommended should never be done.
6. Emissions trading can be very valuable, enabling emissions cuts to be made in the most economically efficient manner, irrespective of location. The problems affecting Phase I of the EU ETS should not be viewed as discrediting the concept of emissions trading; and Phase II already looks set to make significant improvements. The Government should be more open about the problems of Phase I, and the uncertainties and complexities of emissions trading in general. The increased accountability this would result in would help to strengthen the foundations of emissions trading. Conversely, a lack of transparency could undermine both the effectiveness of emissions trading and public and financial confidence in it.

Background to this Report

Our report and letter to the Secretary of State

7. The Environmental Audit Committee (EAC) published its report on *The EU Emissions Trading Scheme: Lessons for the Future* on Tuesday 20 February 2007 as HC 70. In this report we recognised the efforts made by the Government to foster the development of emissions trading internationally, and to strengthen Phase II of the EU ETS in particular. (Significantly, at the time of writing, the UK was one of only two EU Member States to have its proposed emissions cap for Phase II accepted as being rigorous enough by the European Commission.) At the same time, we expressed some substantial concerns over the effectiveness of Phase I of the Scheme, and over the transparency with which the impacts of emissions trading are reported. In addition, we made a number of recommendations as to ways in which the EU ETS could be improved in its prospective Third Phase.¹

8. We received the Government response to our report on 3 May 2007; published originally on the EAC website, it is reproduced in this volume. Following receipt of the Government Response, we wrote to the then Secretary of State for Environment on 13 June with some further queries, receiving a reply from the new Secretary of State, Mr Benn, on 17 July. Both letters are also published with this report.

9. We welcome the constructive nature of, and useful detail in, both the Government response and Secretary of State's letter. However, we have ongoing concerns about the Government's statements on the transparency with which carbon credits from the EU ETS and other trading schemes are to be used, and their impacts publicly reported. This applies not just to this letter and response, but more widely to the Draft Climate Change Bill, published in March 2007, and the evidence offered to support it by Ministers and officials. In short, we still do not believe the Government is being clear enough about whether the effects of carbon trading on the UK's share of emissions are always as real and as significant as reported.

10. Public reporting of the effects of carbon trading is an important issue, firstly, because the use of trading to meet greenhouse gas (GHG) reduction targets can be extremely complex and hard to follow. It can involve different organisations, in different countries, participating in different types of schemes, aimed at reducing emissions of different gases. There is a risk that the complexities of such transactions might obscure whether they are, in fact, reducing the full amount of emissions they ostensibly represent. A failure to present the real effects of such schemes with the highest degree of clarity and comprehensibility poses a risk both to the success of emissions trading schemes and to national and international efforts to meet emissions reductions targets.

¹ Notably, we recommended the setting of a single Allocation Plan for the EU as a whole, an increase in the proportion of carbon allowances to be auctioned rather than allocated for free, and a strengthening of the terms under which the aviation sector should be included.

11. It is especially important to get the reporting right at this stage given the Government's plans, under the forthcoming Climate Change Bill, to introduce a national carbon budgeting system. The system as proposed appears to place a significant emphasis on the use of international emissions trading in order to meet future carbon reduction milestones for the UK.² As we noted in our report on the EU ETS, a lack of transparency in reporting "might help to give a falsely reassuring picture of progress against [the Government's] domestic CO₂ target within the UK."³

How the EU ETS is designed to work—and how it has worked so far

12. It is worthwhile to begin by recapping the basic design behind the EU Emissions Trading Scheme, and its history so far. The EU ETS began operation on 1 January 2005, with Phase I running until 31 December 2007, and a Second Phase set to run from 2008 to 2012. (There are no definite plans for the EU ETS beyond 2012, but it is expected that a Third Phase would begin in 2013; the European Commission is currently undertaking a review of how to take the Scheme forward.)⁴ Currently the Scheme covers around 11,000 power stations and industrial installations across 25 Member States of the European Union (including over 1,000 sites in the UK), together responsible for approximately 45% of the EU's carbon dioxide emissions (and including a similar proportion of the UK's carbon emissions).

13. Under the Scheme, each Member State sets a national cap (referred to as a National Allocation Plan, or NAP) on carbon emissions from its power and industrial sectors. Each country distributes allowances to emit CO₂, equal to its aggregate national cap, among the individual installations within its borders. (One ETS allowance covers the emission of one tonne of carbon dioxide.) Each National Allocation Plan runs for the entire duration of each Phase of the Scheme.

14. The Government has explained the way in which the Scheme is meant to work as follows:

The overall number of allowances allocated should be set below industry's normal emissions levels; each company with a shortfall must either reduce its own carbon emissions or buy allowances from other companies. This enables companies who can easily lower their carbon emissions to make large cuts in emissions and sell their allowances to those who find it harder to do so. The benefits of creating such a market is that it allows emissions reductions to occur where it is most costeffective.⁵

15. In practice so far the Scheme appears not to have worked quite according to this blueprint. Notably, in April-May 2006 the price of carbon allowances collapsed, following

2 *Draft Climate Change Bill Consultation Document*, HM Government, Cm 7040, March 2007, paras 5.26-5.35

3 Environmental Audit Committee, Second Report of Session 2006-07, *The EU Emissions Trading Scheme: Lessons for the Future*, HC 70, p 43

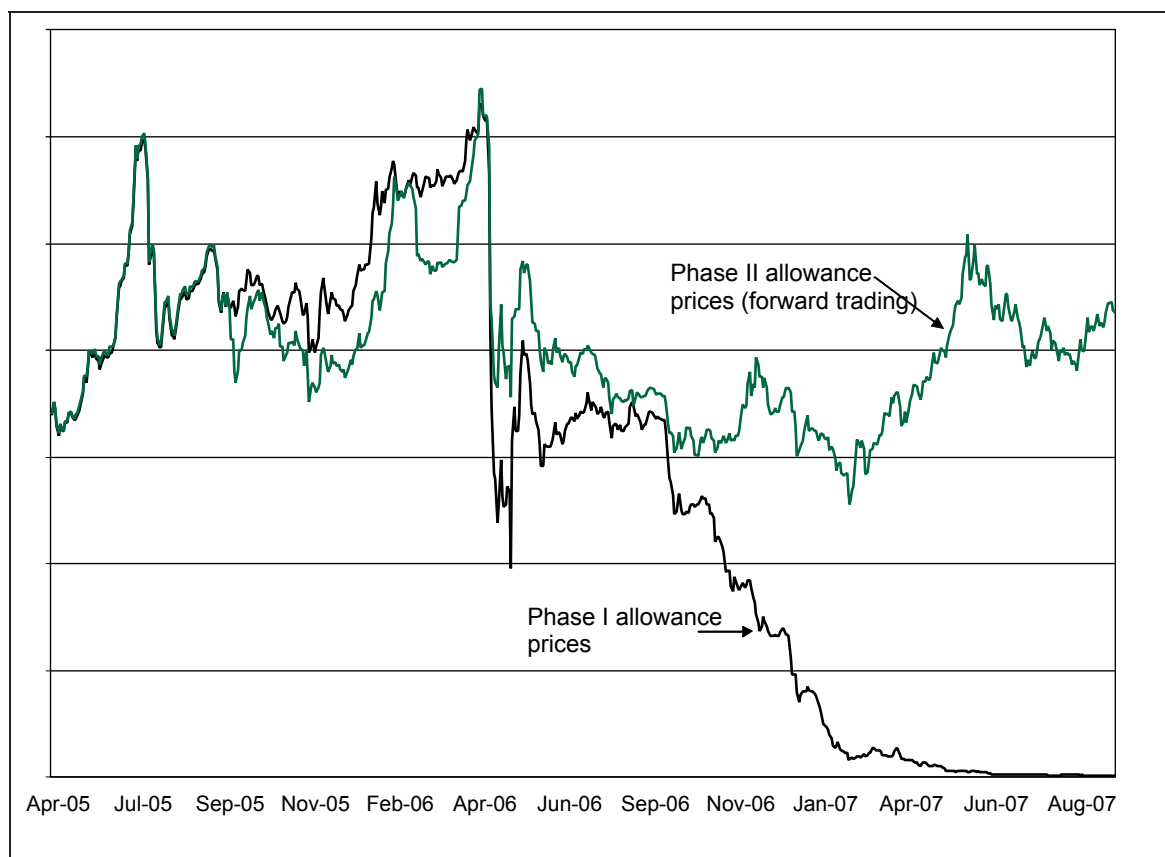
4 Details are available on the European Commission website, http://ec.europa.eu/environment/climat/emission/review_en.htm

5 Department of Trade and Industry (DTI), *The Energy Challenge*, Cm 6887, July 2006, p 28

the release of figures which indicated that emissions in 2005 were lower than expected, leaving the Scheme with a surplus of some 44 million allowances after year one. This prompted fears that Member States had as a whole erred on the side of caution—or generosity—in giving their industries an over-allocation of allowances; and thus that the whole of Phase I would be ineffectual, failing to provide participating companies with the challenging caps required to drive changes in behaviour and a reduction in emissions.

16. The National Allocation Plans for the next Phase, however, appear finally to have been set at more challenging levels. Certainly the market appears more confident that Phase II will be more stringent, incentivising genuine emissions cuts and leading to greater demand from participating firms for allowances (i.e., to cover emissions in excess of their allocations). **Figure 1** indicates this, by illustrating both the collapse in Phase I allowance prices in spring 2006 (and their further decline since then) and the relative buoyancy in the future trading price of Phase II allowances.

Figure 1 The price of allowances in Phase I collapsed – but Phase II remains stable



Note: "Phase I allowance prices" are December 2007 Settlement prices. "Phase II allowance prices" are December 2008 Settlement prices.

Source: www.europeanclimateexchange.com

The transparency of Government reporting

Impacts of Phase I on UK emissions

17. One of the main issues we have raised in our report and subsequent dialogue with the Secretary of State concerns the results claimed by the Government for Phase I of the EU ETS (2005-07). As mentioned above, most observers believe that too many allowances to emit carbon have been allocated in Phase I, meaning there is overall little or no incentive for firms to cut back on their emissions, and thus that the entirety of this Phase is likely to be ineffective in driving down emissions. The Government, meanwhile, has maintained that Phase I is indeed having a significant impact in the UK.

18. In evidence to us in December 2006, the then Environment Minister confirmed the Government's estimate of the annual impact of Phase I on UK emissions as amounting to some 4.6 MtC (million tonnes carbon).⁶ We expressed some doubt as to these figures in our report and subsequent letter, citing the evidence which suggested that across the EU as a whole there was a surfeit of allowances in Phase I. In his response to our letter, the Secretary of State reaffirmed that Phase I was indeed having a major impact. In fact, he reported that the Government has now increased its estimate of the impact on UK emissions, to some 5.9 MtC a year.

19. We continue to find the Government's arguments on this point difficult to accept as they stand. There are two main aspects to our disagreement: (i) the Government's use of "business as usual" (BAU) projections of emissions to calculate the impacts of the EU ETS, and (ii) its assumption that where UK firms purchase a net amount of carbon allowances from the Scheme, this is *necessarily* equivalent to reducing emissions from within the UK itself by the same amount.

Using "business as usual" projections to calculate emissions savings

20. One way in which the Government estimates the impacts of the EU ETS on UK emissions is by way of "business as usual" projections. Essentially, what this means is that the Government attempts, on the basis of historical data and various other factors, to estimate what the level of emissions from UK installations in a certain year *would have been* in the absence of the EU ETS, and compares this to the amount of carbon allowances issued under the UK's National Allocation Plan for the same year. Whatever the difference is, the Government then reports as being the impact of the EU ETS on UK emissions.

21. The main problem with this approach is that it is a counterfactual exercise; it is clearly impossible to be certain about what level emissions would have grown to in an alternative future. As we noted in another recent report, the results of such projection exercises can be highly variable.⁷ In a paper we commissioned on emissions forecasting, the National Audit

6 Environmental Audit Committee, *The EU Emissions Trading Scheme: Lessons for the Future*, Q310

7 Environmental Audit Committee, Seventh Report of Session 2006-07, *Beyond Stern: From the Climate Change Programme Review to the Draft Climate Change Bill*, HC 460, pp 8-17

Office (NAO), while praising many of the Government's forecasting systems, concluded that the Government ought to be more open about the uncertainties inevitably attaching to such projections. The NAO further concluded that the Government should not simply state one single figure as its projection for a given year, but should rather state a range of figures to more accurately reflect the range of probable outcomes generated by its models.⁸

22. There is also a further reason why in this case projections may be especially subject to uncertainty. The current EU ETS system provides an incentive for both firms and governments in each Member State to inflate their projections of BAU emissions, since these are the reference levels from which the cutbacks in their allocations of allowances are set for each Phase of the Scheme. Some observers believe that the majority of Member States did indeed inflate their projections of BAU emissions in deciding their initial National Allocation Plans, and that this is what resulted in the general overallocation of carbon allowances across the EU as a whole for Phase I.⁹

23. For all these reasons we concluded in our original report: "Calculating cutbacks in emissions caps with reference to Business As Usual projections lacks certainty and effectiveness. [...] Both within the UK and across the EU ETS, allocations ought to be set with reference to a declining budget of absolute carbon emissions."¹⁰ We would add further that where the Government uses BAU projections to calculate the UK impacts of the EU ETS, it should not publicise a single figure, such as "5.9 MtC per year"; instead, it should give a range of possible savings. Moreover, it should be open about the uncertainties involved in such figures, and the reasons for that uncertainty.

Distinguishing between funding emissions reductions abroad and cutting emissions within the UK

24. In contrast to most other Member States, the actual emissions of UK installations have been higher in the first two years of the EU ETS than their allocations of carbon allowances. In 2005, for instance, emissions from UK installations were 27 MtCO₂ (million tonnes carbon dioxide) higher than their allocations. The UK had thus to purchase a net total of 27 million carbon allowances from the allocations of other Member States to cover these excess emissions.

25. In some publications the Government has presented these results as though this purchase of allowances has reduced UK emissions by an equivalent amount. A Defra press release from January 2007, for instance, reported that actual emissions for the whole of the UK were 554.2 MtCO₂ in 2005, some 6.4% down on 1990 levels; but that "Adjusted for emissions trading, UK CO₂ emissions in 2005 were about 527 million tonnes – approximately 11 per cent lower than 1990 levels."¹¹ To reflect the impacts of the EU ETS

8 National Audit Office, *Emissions Projections in the 2006 Climate Change Programme Review*, December 2006, pp 20-21

9 Environmental Audit Committee, *The EU Emissions Trading Scheme: Lessons for the Future*, p 23

10 Environmental Audit Committee, *The EU Emissions Trading Scheme: Lessons for the Future*, p 83

11 "Greenhouse gas statistic show UK on track to double Kyoto target", Defra press release 25/01, 31 January 2007

in this case, then, the Government has subtracted 27 MtCO₂ from the actual figures for emissions from the UK for that year.

26. Our first concern here is that buying emissions credits from other countries does not *necessarily* translate into cutting emissions—whether in those countries, or in fact anywhere. The value of carbon credits—i.e., whether one carbon credit really does represent one tonne of carbon dioxide—is only as real as the trading schemes which issue them are effective. An effective scheme is one which is designed and audited so as to ensure that, in order to gain surplus carbon credits to sell to others, a participant has to do something to achieve a genuine and measurable reduction in an equal amount of emissions. Examples of ineffectiveness, meanwhile, could include a firm's being given an initial grant of more carbon credits than it needs to cover its emissions; being allowed to claim credits for making cuts in emissions that would have happened anyway (for instance, by shutting a plant that was slated for closure in any case); or building new plants that create more emissions in order to then abate them, and sell credits for doing so.¹²

27. Regarding EU ETS credits, as discussed above, the rationale behind the Scheme is that installations in all Member States ought to be allocated progressively fewer carbon allowances than they would normally require. This should give a financial incentive to firms to change their processes and make cuts in their emissions, leaving them with surplus allowances they could sell to other firms which find it harder to cut their emissions. Where there has been an overallocation of carbon allowances, many firms would have surplus credits to sell, without having to cut their actual emissions. Buying allowances in these circumstances has been described as “buying hot air”, rather than funding other firms to invest in their own emissions cuts. Although the UK bought a net total of 27 million ETS allowances from the rest of Europe in 2005, the effect of this on the net emissions of the EU as a whole is difficult to estimate, but certainly would not necessarily amount to an equivalent reduction. Not only would it be wrong to state unequivocally that emissions from the UK had gone down by 27 million tonnes, but it would be wrong to make an unqualified claim of any reduction of 27 million tonnes, occurring anywhere.

28. A second issue is that, even where trading schemes are effective, and purchasing carbon credits does fund equivalent cuts abroad, this should still be clearly differentiated, within all Government reports and statements, from making emissions cuts within the UK. This is necessary to ensure proper scrutiny of progress towards meeting domestic targets within this country.

29. Emissions trading can be very valuable, enabling emissions cuts to be made in the most economically efficient manner, irrespective of location. In particular, emissions trading provides an incentive for richer countries to finance low carbon infrastructure in the developing world (since it is cheaper initially to cut emissions there), with mutual benefits to both sets of economies. The Government is entirely right to make the argument that “whether a tonne of carbon is emitted in Birmingham or Bangalore” makes no difference

12 Environmental Audit Committee, *The EU Emissions Trading Scheme: Lessons for the Future*, p 72

to its impacts, and thus that: “Because greenhouse gases are well mixed in the atmosphere it does not matter whether an emission reduction takes place in the UK or elsewhere.”¹³

30. However, there is a certain minimum effort which must be made within the UK, if we are to make a proportionate effort towards meeting global emissions targets, based on a “Contraction and Convergence” or similar model.¹⁴ Clarity in reporting emissions cuts made within the UK is essential for focusing attention on the significant efforts required to achieve this minimum level, and meet our requisite milestones in the years ahead.

The need for greater transparency and ongoing scrutiny

31. In the light of these concerns we warmly welcome the strong agreement in the Government Response that “Government publications should be transparent about the level of emissions reductions taking place in the UK, and the net inflow (or outflow) of emissions reductions from elsewhere”, leading to the specific assurance that:

In the Government’s view the most informative combination of data is to show

- i) UK CO₂ reductions within the UK
- ii) the total of CO₂ and CO₂e reductions within the UK and abroad funded by the UK.¹⁵

32. However, as we noted in our letter to the Secretary of State, we remain concerned that the Government is not always making these distinctions truly explicit. For instance, we are concerned by Defra’s use of such rather bland phrases as “Adjusted for emissions trading”, “when the effect of the EU Emissions Trading Scheme is taken into account”, and “CO₂ incl ETS” to refer to the practice of subtracting 27 million tonnes of CO₂ from the UK’s figures for 2005, on the basis that UK installations had bought a net total of 27 million ETS allowances that year.¹⁶

33. Even more pointedly, we drew the Secretary of State’s attention to Budget Report 2007, which in its chapter on the environment appears to have incorporated this subtraction of 27 MtCO₂ from the UK’s emissions for 2005 into its sole presentation of UK emissions in that year (**Figure 2**). The small print at the bottom of the chart explains: “(figures take into account the effect of the EU ETS)”.

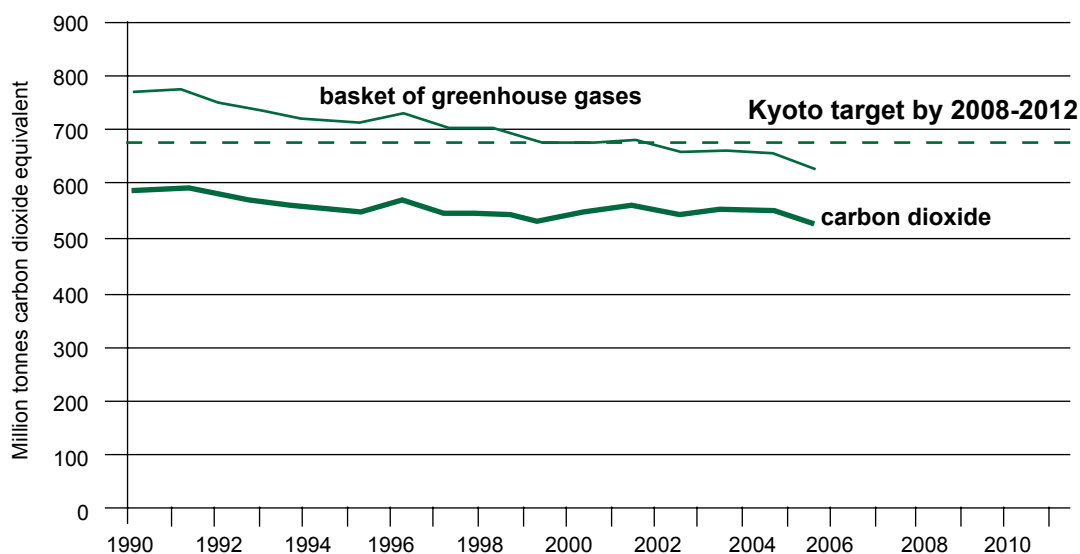
13 Government Response to the Environmental Audit Committee, Second Report of Session 2006-07, *The EU Emissions Trading Scheme: Lessons for the Future*, response to recommendation 22

14 Under a global Contraction and Convergence agreement, emissions budgets allocated to each nation would be progressively amended until all would arrive at an equal per capita level, consistent with an internationally agreed stabilisation level.

15 Government Response to the Environmental Audit Committee, Second Report of Session 2006-07, *The EU Emissions Trading Scheme: Lessons for the Future*, response to recommendation 24

16 “Greenhouse gas statistic show UK on track to double Kyoto target”, Defra press release 25/01, 31 January 2007

Figure 2 Graph depicting UK emissions from Budget Report 2007



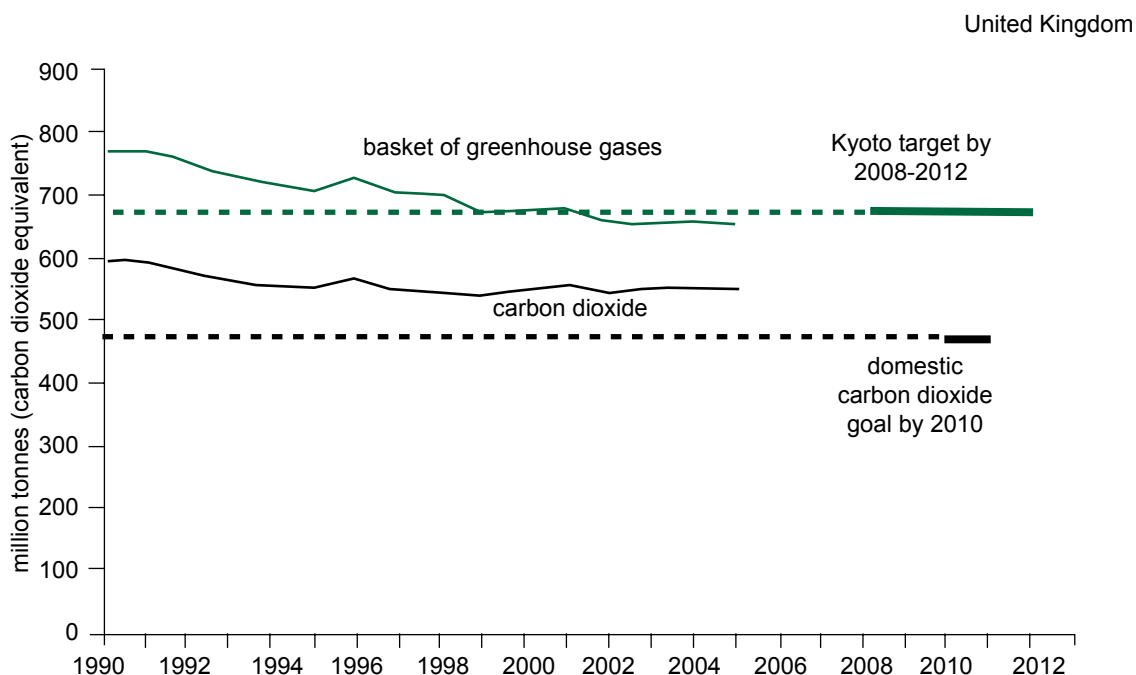
Source: HM Treasury, *Building Britain's long-term future: Prosperity and fairness for families, Economic and Fiscal Strategy Report and Financial Statement and Budget Report, March 2007, HC 342, p 168, www.hm-treasury.gov.uk/media/F/D/bud07_chapter7_273.pdf*

34. This is an example of something which our report specifically recommended should never be done:

24. [...] Above all, [the Government] must ensure that whenever it publishes graphs depicting historic UK emissions and plotting their projected progress in future years, this always shows historic and projected emissions from the UK only, and never incorporates, in the same line, estimated reductions funded abroad. (Paragraph 74)¹⁷

35. The lack of transparency in this chart is underlined when it is compared with another graph, published in January 2007 by Defra, which depicts the trend in *actual* CO₂ emissions in the UK (**Figure 3**). This clearly shows that emissions from within the UK were almost unchanged in 2005 (actually going down by 0.1% from 2004 levels, but essentially showing very little change since 2003), not sharply down as the Budget 2007 chart suggests.

Figure 3 Graph depicting UK emissions from the Defra website



Source: Defra statistical press release 24/07, "2005 UK climate change sustainable development indicator and greenhouse gas emissions final figures", 31 January 2007, www.defra.gov.uk/news/2007/070131a.htm

36. We are disappointed by the Secretary of State's response to our argument on this point:

The Government does not agree with this specific recommendation of the Committee. This is because emission reductions occurring abroad may, by international agreement and subject to agreed rules, count towards the UK's emissions reduction commitments under the Kyoto Protocol; and in reality because they are funded by, and in effect caused by, UK operators subject to the EU ETS. Furthermore the net UK carbon account which will be compared with the budgets established for successive five year periods will, we anticipate under the provisions of the draft Climate Change Bill, include credits for emissions reductions outside the UK. The Government may therefore wish to publish graphs that include both types of emissions reduction.

37. We would have no objection—beyond a concern that the uncertainties of emissions trading are highlighted—to a graph which clearly depicted actual UK emissions and *separately* depicted the estimated impacts of emissions trading. However, we are concerned that the conclusion, "The Government may therefore wish to publish graphs that include both types of emissions reduction," means that the Government may intend to continue publishing graphs such as the one we have highlighted from Budget Report 2007. We would not find this acceptable, even if the Government were also to publish the more transparent type of graph (i.e., one that depicts actual UK emissions separately from estimated reductions funded abroad) in other publications. The Secretary of State's reference to the importance of emissions trading to the proposed regime of UK carbon budgeting only underlines the importance of our point.

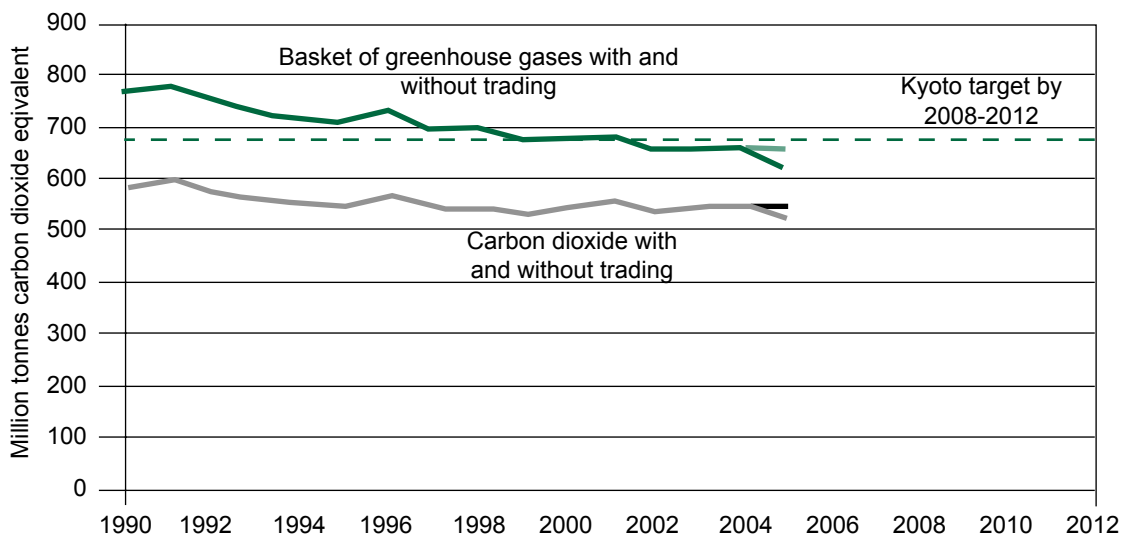
38. As a result of our concerns we asked the Secretary of State whether the Government has, or is planning to develop, a code of practice concerning the transparency of emissions reporting, including uses of emissions trading. The Secretary of State replied that the UK greenhouse gas inventory is compiled and reported according to internationally agreed guidelines, that the UK's EU ETS data are drawn up under EU regulations, and that overall UK emissions figures are produced and published under the National Statistics Code of Practice. Thus he concluded: "The Government does not therefore see the need for a new code of practice".

39. While we appreciate the rigour involved in the compiling of official UK emissions figures, our argument concerns the Government's *presentation* of these figures. We are not certain that the issues of presentation we have highlighted are covered by any of the official guidelines referred to by the Secretary of State. Accordingly we may choose to explore this matter further with the forthcoming Statistics Board in due course. In a recent report we recommended that the forthcoming Committee on Climate Change be given a specific duty to audit Government emissions reporting, and we look forward to following the development of that Committee's duties.¹⁸ We may also choose periodically to monitor the transparency of the Government's emissions trading reporting ourselves.

40. Shortly before publication of this report the Government published another high-profile graph depicting UK emissions in Pre-Budget Report 2007 (**Figure 4**). This was similar to the graph in Budget Report 2007, which we had criticised in our letter to the Secretary of State for the Environment, but contained an important difference. The recent graph provides separate trend lines for UK emissions, one line depicting actual emissions from the UK, and the other depicting UK emissions minus the Government's estimate of the impact of the EU ETS. This is an improvement, and suggests that our criticisms have started to be taken on board.

18 Environmental Audit Committee, *Beyond Stern: From the Climate Change Programme Review to the Draft Climate Change Bill*, p 59

Figure 4 Graph depicting UK emissions from Pre-Budget Report 2007



Source: HM Treasury, *Meeting the aspirations of the British people, 2007 Pre-Budget Report and Comprehensive Spending Review, October 2007, Cm 7227, p 115,*

http://www.hm-treasury.gov.uk/media/C18/pbr_csr07_chapter7_258.pdf

41. However, we would argue strongly that it does not go nearly far enough. First, there is no recognition of the uncertainties of emissions trading, in particular whether the net purchase of 27 million EU ETS allowances has reduced carbon emissions anywhere by that amount. Second, the graph's only explanation for the difference between trendlines is the quite uninformative phrase "with and without trading"; there ought to be notes to the graph which explain exactly how the "with trading" trendline is calculated. Third, the presentation of the trendlines is inconsistent: in the case of the "basket of greenhouse gases", the actual level of emissions in 2005 is pale, while the "with trading" line is bold; but for "carbon dioxide", actual emissions in 2005 are in bold and "with trading" emissions are pale. It would be clearer if in both cases the actual emissions were in bold, and the "with trading" trendlines were pale. This would help to make it clearer to the reader what was the trend of actual emissions from the UK.

42. Overall, we believe this graph is still highly lacking in transparency, in that it would still suggest to most readers that emissions from the UK have recently begun sharply to decrease, which is certainly not the case. We would also note, that in contrast to the graph from the Defra website, it does not depict the target level of the UK's 2010 target of reducing CO₂ emissions by 20% from 1990 levels, and thus does not help observers gauge the UK's performance against this target. We will continue to monitor Government presentations of UK emissions for their transparency.

Concluding remarks

43. We would conclude by reiterating our support for the EU ETS, and for emissions trading in principle. The problems affecting Phase I of the EU ETS should not be viewed as discrediting the concept of emissions trading; and Phase II already looks set to make significant improvements. We believe the Government should be more open about the

problems of Phase I, and the uncertainties and complexities of emissions trading in general; and that the increased accountability this would result in would help to strengthen the foundations of emissions trading. Conversely, a lack of transparency could undermine both the effectiveness of emissions trading and public and financial confidence in it.

44. We have published this unusually detailed commentary on a Government response because of the great importance which emissions trading can play in contributing to UK and international efforts to mitigate greenhouse gas emissions. We do not, however, require a formal Government response to this short report. We will no doubt continue this dialogue in future reports.

Appendix 1—Government Response

Government Response to the Environment Audit Committee’s report: “*The EU Emissions Trading Scheme: Lessons for the Future*” (Second Report of Session 2006-07)

Introduction

i) The Government welcomes the Environmental Audit Committee’s comprehensive report into the EU Emissions Trading Scheme (EU ETS). We are keen to use its conclusions and recommendations to help inform our input to the long-term future of the EU ETS.

ii) The Government welcomes the Committee’s positive comments about the administrative success of the EU ETS and the leading contribution the UK has made on ensuring a robust cap for Phase II.

iii) The Government welcomes the report’s acknowledgment of the UK’s leadership in establishing and promoting the EU ETS. This is a role we will continue to play through our work towards the review of the Emissions Trading Directive and in the UK Government vision on Emissions Trading published alongside the Stern Review.

iv) The EU ETS and the wider climate change issues covered by the report involve a number of departments working together. The ETS and many climate change policies areas are devolved to the administrations in Scotland, Wales and Northern Ireland. Whilst the Environmental Audit Committee’s report is to the UK Government, the Government’s response would normally be formulated in consultation with the devolved administrations. Given that elections are about to be held in Scotland and Wales and that Northern Ireland is in a post election period awaiting the establishment of a devolved Assembly on 8 May, this response reflects input from the relevant Government departments, but has not been agreed with the devolved administrations.

v) The Government’s responses to the specific conclusions and recommendations of the Environmental Audit Committee’s Report are set out below.

CONCLUSIONS AND RECOMMENDATIONS

The EU ETS is the cornerstone of UK and EU climate change policy

1. The Government has made it clear that the EU Emissions Trading Scheme (ETS) is “the cornerstone of the Government’s policy framework to tackle climate change.” Given that the Prime Minister has repeatedly emphasised that, as he puts it, “climate change is probably the greatest long-term challenge facing the human race,” and that tackling it is thus “a top priority for this government, at home and internationally,”

it would seem no exaggeration to say that the Government has more staked on the success of this one policy instrument than perhaps any other. (Paragraph 1)

Climate change is a global problem needing a multilateral solution. The EU ETS has built on the Kyoto Protocol to take the world's most significant step in establishing a carbon price signal across countries and sectors to ensure that emission reductions are delivered in the most cost effective way.

The Government is committed to building on the EU ETS as the main way of pricing carbon in the economy, to ensure that emissions are effectively limited. However, emissions trading may not be a suitable mechanism to price carbon in all parts of industry or the economy. As the Stern Review showed, three elements of policy are critical to minimise the costs of mitigation to climate change: carbon pricing, technology policy and measures to overcome barriers to behaviour change, such as energy efficiency. Technology policy is needed to overcome the market failures associated with research, development and deployment of low carbon technologies, such as knowledge spillovers and externalities. Measures to encourage behavioural change are necessary to overcome information asymmetries and inertia. In addition, measures are needed to avoid deforestation and encourage sustainable land use, alongside measures for adaptation to the effects of climate change which can no longer be prevented.

The recent publication of the draft Climate Change Bill seeks to provide a clear, long term domestic framework for the UK to achieve its goals of reducing carbon dioxide emissions while maximising the social and economic benefits and minimising the costs of doing so. The Bill's proposals would provide greater clarity and confidence for UK industry to plan and invest in the technology needed to move towards a low carbon economy, and would do so in a way which is consistent with a vibrant economy and fair society. It will also demonstrate the UK's strong international leadership – a key factor in helping to secure future international agreements.

2. Within a matter of months the European Commission is set to have reached decisions on the next two phases of the EU ETS which will be vitally important, not just to the success of this scheme, but to the establishment of carbon trading worldwide. The EU ETS has received serious criticism for its design to date, concerning the efficiency and effectiveness with which it sets carbon allocations, and the way in which it relates to countries outside the EU, both in terms of dealing with international competition and of funding offsetting projects in developing economies. These challenges must be addressed if the EU ETS is to prove the credibility of emissions trading as the foremost mechanism for tackling greenhouse gas emissions worldwide. In meeting these challenges, and making a success of emissions trading, Europe would be in the position to mould a global carbon market, something which only underlines the importance of getting the design of the Scheme right. The converse risk, if Member States and the European Commission get the terms of Phases II and III wrong, is that the credibility and potential effectiveness of

emissions trading is fatally and permanently undermined. (Paragraph 10)

The Government agrees that the EU ETS needs integrity and effectiveness in order to deliver cost-effective emission reductions. This is why we have argued for a consistent and robust approach to cap setting for Phase II; and underpins our long term vision for improving the design of the scheme, to enable it to become the basis of a global carbon market. We welcome the Commission's decisions on Phase II caps. The market is showing a forward price for 2008 of around €17 at the time of writing, suggesting that it believes that Phase II will provide higher incentives for reductions in emissions.

Linking the EU ETS to the Clean Development Mechanism provides further flexibility for emission reductions and is an important means of encouraging low carbon investment in the developing world. The use of Kyoto project credits is subject to limits to ensure a balance between flexibility and the need for domestic abatement and to avoid oversupply weakening the market.

The Commission has initiated a review of the Emissions Trading Directive. The review, and the revised legislative proposals that will follow, will provide an opportunity to ensure that the scheme delivers cost effective emissions reductions in the long term. The priority areas announced by the Commission in its Communication on the review¹⁹ chime well with those set out in the UK Government Vision on Emissions Trading.

The record of Phase I

3. Two years into the operation of the EU ETS, there is much to applaud. The very existence of such a complex system, involving hundreds of firms and thousands of installations in 25 countries, is an impressive achievement in its own right, especially considering the tight timetable under which it was set up. In operation, the Scheme has shown itself so far to be an administrative success, with the overwhelming majority of installations reporting their independently verified CO₂ emissions, and surrendering the appropriate number of allowances to cover them, to the required deadlines. (Paragraph 15)

The Government agrees with the Committee's positive assessment of the administrative success of the EU ETS. The fact that the scheme was operational across the majority of the EU by early 2005 demonstrates that nations can act swiftly and decisively together to tackle climate change.

Lessons have been learnt from Phase I and the Commission has asked for reductions from several Member States caps for Phase II. The Commission has set out clearly its framework under which it has taken decisions, which we welcome.

¹⁹ http://ec.europa.eu/environment/climat/emission/review_en.htm

The level of compliance achieved is a credit to the significant effort industry, regulators and verifiers have put into understanding the demands of the EU ETS. It is important that this solid base is built on for the future of the scheme.

4. While the Scheme so far has been an administrative success, its record in reducing carbon emissions is far less impressive. It appears to us that Phase I will have very little impact on carbon emissions across the EU. Allocations of allowances to emit carbon were too generous, and the market price of them consequently too low, to drive a transformation in business strategies and technical processes. Overall, the emissions projections appear to have been inaccurate and inflated, and the national caps derived from them too unambitious. There is some excuse for this in Phase I, given the difficulties in collecting accurate baseline data and the compromises needed to achieve speedy implementation of the initial phase of the Scheme; and for these reasons it has always been characterised as a “learning by doing” phase. But lessons must actually be learnt, and things radically improved, in Phase II and beyond. (Paragraph 26)

It is important to remember that emissions trading had never been tried before on this scale. Phase I can be seen partly as a learning by doing exercise; it is vital that we take forward the key lessons that will improve the effectiveness of the EU ETS.

The studies mentioned below in response to recommendation 5 show how the scheme is already having a positive impact on business behaviour in terms of taking into account the cost of their emissions. The decisions made on Phase II NAPs will reinforce this message.

5. While this view is contradicted by the study by academics from the Massachusetts Institute of Technology and Fondazione Eni Enrico Mattei, we have some doubts as to the strength of its conclusions. In view of the reliance which the Minister is now placing on this one piece of research to argue that Phase I has significantly reduced emissions in the EU, the Government should commission an independent review of the study’s findings. Overall, we would welcome more research into the effects of the Scheme on participating companies. Where there is strong evidence that the EU ETS is driving behavioural change that cuts emissions in absolute terms, this ought to be given significant publicity, both to spread the lessons of good practice and to bolster domestic and international support for emissions trading. (Paragraph 27)

Since the Minister gave evidence to the Committee there has been further emerging evidence that the EU ETS is having an impact on industry behaviour. In a survey by Point Carbon published on 13 March 2007, about two-thirds of the 800 or so EU ETS participants who responded stated they had initiated internal abatement projects as a result of the EU ETS.

Another survey for the European Commission conducted by McKinsey and Ecofys²⁰ also found that the EU ETS is impacting on corporate behaviour:

- Based on this scheme, CO₂ involves a real cost. About half the companies already “price in” the value of CO₂ allowances and over 70% intend to do so in the future.
- For half of the companies, the EU ETS is one of the key issues in long-term decisions; for the other half, it is only one among many issues.
- About half of the companies claim that the EU ETS has a strong or medium impact on decisions to develop innovative technology.

We agree with the Committee that more research is needed; in particular when sufficient time has passed for firms to have considered more fully the abatement options available to them.

6. Overall, the extent to which the EU ETS, and any other trading schemes, is judged a success should depend on two main things: the extent to which emissions are reduced, and the extent to which a stable and effective carbon price is generated. To date, the EU ETS has had very questionable effects on both measures. In particular, it has been undermined by weak caps and inaccurate and unsatisfactory methods of allocating allowances to individual sectors and installations. Both shortcomings have been exacerbated, if not wholly caused, by the instrumental role of a multiplicity of national bureaucracies, which have set caps and allocations through a methodology which was not just cumbersome, but prone to being influenced by industrial lobbying. (Paragraph 29)

The Government agrees that a key lesson from Phase I is the need for realistic but tough caps to be set consistently across the EU for future phases. Market scarcity will drive the carbon price to incentivise emission reductions. That is why we support the Commission’s Phase II NAP decisions and its efforts to strengthen the scheme in the future.

It is critical to get the level of the cap right. Evidence from phase 1 suggests that the system used was not conducive to setting a tight enough cap. The review of the Directive will consider options for greater central control in setting caps .

The UK wishes to move towards greater use of auctioning of allowances in future phases to ensure more efficient allocation and to remove perverse incentives where there is free allocation of allowances through more standardised methodology.

The prospects for Phase II

7. The Government ought to be commended for its leading contribution to the robustness of Phase II, and future strength of the EU ETS, in proposing a more stringent NAP than many other Member States; as well as submitting it to the

Commission on time, unlike many others. That the United Kingdom had the only national cap (in the initial batch of 10 to be reviewed) that was accepted by the Commission as submitted, and without being revised downwards, clearly highlights the fact that in terms of setting limits to emissions the Government is leading the way in Europe. (Paragraph 31)

The Government welcomes the Committee's commendation of our Phase II NAP. The Government will continue to show international leadership in the fight against climate change and demonstrate the UK's commitment to meeting its responsibility for reducing global emissions.

8. That most of the draft National Allocation Plans originally proposed by Member States for Phase II were so inadequate suggests a worrying lack of public and political understanding of the dangers of climate change, and of the need to tackle it, across the EU as a whole. This highlights the vital role which must be played by the Commission, given its ability to operate at one remove from the competitive national interests of individual Member States, to impose the cutbacks in allocations required by the Scheme as a whole. A corollary of this is that the UK Government must do its utmost both to persuade other EU states of the need for greater action, and to bolster the position of the Commission in guiding Member States in the right direction. (Paragraph 33)

The Government welcomes the transparency of the Commission announcement of the basis on which they have assessed all Member State Phase II NAPs. The Commission's Phase II decisions so far give a very strong signal about the important role the scheme has, and will continue to have, in tackling climate change.

The UK Stakeholder Manifesto on the EU ETS, launched in March 07, has been signed by over 50 businesses and NGOs and sets out how the Government and stakeholders want to see the emissions trading scheme develop after 2012. The manifesto demonstrates the high level of consensus that exists in the UK on the future importance of the scheme. The manifesto should help shape discussions across Europe around key priorities for the scheme.

9. The European Commission's decisions on the National Allocation Plans for Phase II are encouraging not just in terms of making it more likely that the EU ETS will begin to drive real carbon abatement in its Second Phase, but in terms of increasing confidence in the entire viability and future development of the Scheme. (Paragraph 35)

The Government agrees with the Committee's assessment of the Commission's Phase II NAP decisions. They show a clear determination to ensure scarcity in the carbon market and to provide clarity to business and should provide increased confidence for Phase II. This has been reinforced in the Commission's Communication that sets out its priority areas for the Review of the Directive.

10. While the Commission's decisions on the Phase II NAPs are encouraging, it is important to keep the potential impacts of Phase II in perspective. Its effectiveness in driving carbon reductions depends on several variables, not all of which can be known with certainty at this stage. And while it looks likely that it will put the EU roughly on course to meet its Kyoto commitments, this cannot yet be known for sure. Furthermore, in order to meet UK and EU climate change targets beyond 2012, much greater action both within the EU ETS and in the form of complementary policies will be needed, and soon. (Paragraph 39)

The Government agrees with the Committee's observations.

Across the EU, the recent agreement to set an independent binding target to reduce Europe's greenhouse gas emissions by at least 20% by 2020 (compared to 1990 levels) and to increase this commitment to a 30% reduction as part of an international agreement demonstrates the leading role Europe is playing internationally.

The publication of the draft Climate Change Bill would make the UK the first country to set a long-term legal framework for reducing emissions over the next 45 years and beyond, and the means to achieve them. The Bill proposals are the start of a new phase of the Government's climate change strategy, the foundation for domestic action and for galvanising international action to combat climate change towards a post-2012 global agreement.

11. One decision on the shape of Phase II, which will have a profound effect on its efficiency and effectiveness, and with which we are signally disappointed, was taken long in advance: the maximum limit of allowances which can be auctioned. Under the ETS Directive, a maximum of only 10% of allowances can be reserved for auction in Phase II, rather than being allocated to firms for free. We believe it was wrong of Member States and the Commission to impose such a restrictive limit on auctioning in Phase II. In our view, auctioning allowances should lead to more accurate allocations, reduced public costs and bureaucracy, and greater internalisation of environmental costs in business decisions. In sectors where there are not strong concerns as to the effects on competitiveness of requiring firms to purchase their allocations upfront, we strongly support 100% auctioning. In auctioning 7% of its Phase II NAP, the Government is doing far more than any other Member State in this Phase, but this level is still far less than the participants could withstand and which would be good for the Scheme as a whole. (Paragraph 40)

A limit of 7% for Phase II represents a significant step in greater use of auctioning within the limits of the Directive, although the Government has made clear that it wants to see a move towards significantly higher levels of auctioning in future phases.

The Government is keen to work with other Member States on auctioning in Phase II to develop best practice and learn from each other. We also recognise the need to work

closely with industry to ensure a progressive transition to greater auctioning and in clarifying the full implications of such a move.

Impacts on firms in the UK

12. The Government has been right to impose cutbacks on the power sector's allocations, and to put a proportion of its Phase II allocation up for auction. The power sector has no grounds for complaint about this, given both that it is effectively earning windfall profits from those allocations it is receiving for free, and that it is broadly holding onto its profits rather than investing them in low carbon energy generation. Revenue raised by auctioning these allowances must not be subsumed into general spending commitments, but should be used demonstrably to assist measures to address climate change. The Government should also examine the benefits of recycling a proportion of this revenue in the form of reductions in other taxes. In the interim before Phase III (which we hope will set a higher limit on auctioning), the Government should examine the case for some form of windfall tax on power companies, where they are continuing to earn windfall profits and not investing them in low carbon generation. (Paragraph 48)

The UK will not be hypothecating auction revenue to a specific area of expenditure because it would be taken out of the Government's public spending framework and value for money would not be guaranteed. In order to achieve value for money Government must ensure that expenditure is allocated according to priorities. Hypothecation could mean that expenditure may not necessarily be allocated according to priorities - this would be inefficient and distortionary. It is Government policy that HMT assess bids for expenditure on their relative merits.

As set out in its 1997 Statement of Intent on Environmental Taxation, the Government has made the commitment to look to shift the burden of tax from 'goods' (such as employment) to 'bads' (such as pollution). This has happened in practice, for instance as seen in the 0.3 per cent cut in employer National Insurance Contributions that accompanied the introduction of the Climate Change Levy. As set out in the 2002 publication *Tax and the Environment*, when considering the use of the tax system to achieve environmental aims it is important that wider economic and social factors are taken into account. Within this principled framework, the Government continues to consider the use of the tax system as part of a wider range of measures.

13. The Government is also right to reject calls by the Clean Coal Task Group to promise new coal-fired power stations more favourable allocations, since this would be to go against the central point of the EU ETS, which is to put a price on carbon. Moreover, it should maintain subsidies for renewables alongside the pricing mechanism of the EU ETS. At the same time, given the power sector's own admission that policy uncertainty is impeding the flow of investment, the Government must provide clearer and perhaps more prescriptive guidance as to the kind of energy investments that the UK will need if it is to meet both its UK Climate Change

Programme and energy strategy objectives. This must certainly be incorporated into the forthcoming Energy White Paper. (Paragraph 49)

The Energy White Paper will set out the Government's thinking on a range of energy policy issues looking out towards 2020 and beyond. It follows the publication of the Energy Review in July 2006. The Energy White Paper will set out how the proposals identified in the Energy Review will be taken forward, and will be informed by a series of public consultations that took place following the review.

The Government's key mechanism for encouraging new renewable generating capacity is the Renewables Obligation. Since its introduction in 2002 there has been a step change in renewable developments coming through with the RO providing around £1bn of support to the renewables industry by 2010. The Government is committed to the RO as a support mechanism for renewables and as part of the current Energy Review is considering proposals to provide more targeted support for emerging technologies under the RO in order to help meet our long term targets.

14. The impact of the Scheme so far on UK industrial firms is largely indirect, in the form of higher energy costs. Most of the recent rises in energy prices have come from other factors; and to the extent that the EU ETS is responsible, Defra's case that this is to be welcomed, as it ensures energy users pay more of their carbon costs. We recognise that for some firms this represents a genuine challenge. Overall, however, industrial sectors should themselves acknowledge the need to pay external costs. Even more importantly, they must accept that they will soon have to be given some cutbacks in ETS allocations, and make some real reductions in their emissions, in order to play their important role in the UK and EU Climate Change Programmes. In any case, even if they were to avoid future cutbacks, the cutbacks given to the power sector would then have to be proportionately bigger if we were still to achieve our emissions targets, which would in turn result in higher energy prices; thus they would still not be able to escape from the rising costs of carbon. (Paragraph 54)

The Government policy on allocations for Phase II was to allocate allowances sufficient to cover Business As Usual emissions to all sectors with the exception of the Large Electricity Producers. The UK Phase II NAP stated that it is the Government's long-term objective to move away from free allocation of allowances so that the full cost of carbon is taken into account by business in making investment decisions. We would expect that - subject to considerations of the impact of carbon constraints on the competitiveness of regulated sectors—all sectors will play their part.

15. This does not necessarily mean that the concerns expressed by industrial groups are not genuine. The Government should analyse and consult on the extent to which the economy needs greater support and guidance in terms potentially of R&D investment, skills training, and trade agreements in order both to realise the necessary carbon savings in the timescale required, and to do so without incurring

the “carbon leakage” of firms relocating to countries with lesser carbon constraints. (Paragraph 55)

Government agrees with the Committee that policy should aim at avoiding carbon leakage. The Government will carry out further research on competitiveness implications for sectors arising from the EU ETS, and from different approaches to the allocation of allowances.

16. Above all, however, where there are genuine concerns as to “carbon leakage”, the emphasis of both Government and industrial lobbies should be firmly on developing trade agreement or protection measures, rather than seeking to water down the carbon caps on the UK and EU. (Paragraph 56)

We are working hard to develop a better understanding of the likely impact—in terms of firms’ decisions about the level and location of production—of carbon constraints on UK and EU industrial sectors. In 2005 the Department of Trade & Industry commissioned research from Frontier Economics on the impact of the Phase II ETS on UK competitiveness—which used case studies to assess the potential impact of different allocation decisions on the competitive position of UK industry. In addition, further work is underway—to help to inform the Government’s position regarding the European Commission’s review of the EU ETS—to assess the impacts that different allocation decisions would have on EU competitiveness. The European Commission has also recently published a study by the consultants McKinsey²¹

Ensuring that trade agreements facilitate sustainable development, and take account of economic, social and environmental considerations has been a priority of the EU, supported by the UK Government, for several years. The broad objectives of EU policy had been to promote the liberalisation of trade in environmental goods and services and consistency between international trade and environmental laws, in order to encourage the diffusion of environmental technologies (including low carbon technologies) and to establish a clear and consistent framework of international trade and environment rules.

The EU aims to ensure that both multilateral and bilateral trade negotiations and trade preference schemes promote sustainable development through, *inter alia*, consistency with international environmental agreements, facilitating trade in environmental goods and services, and encouraging trading partners to follow international best practice. The current Doha Round of multilateral trade negotiations was the first to include the environment as a dossier within the negotiations, and the draft negotiating mandates for the Bilateral Free trade Agreements (FTAs) the European Commission is proposing to negotiate with India, the Republic of Korea and the ASEAN countries contain a section aimed at promoting sustainable development. In addition, the EU's Generalised System of Preferences Plus (GSP Plus) Scheme provides enhanced trading preferences for developing countries which are signatories to seven major international environmental

21 http://ec.europa.eu/environment/climat/emission/review_en.htm

agreements (including the Kyoto Protocol) as well as agreements on human rights and labour standards.

However, the UK Government continues to have reservations about the desirability and effectiveness of using barriers to trade to achieve environmental objectives, as opposed to seeking to create incentives by liberalising trade in new technologies and creating an international carbon market. The use of protective trade measures to achieve climate change objectives was criticised in the *Stern Review: the Economics of Climate Change*^{22[1]}. This argued that the risks of the potential misuse of trade measures to achieve these objectives could have significant impacts in international relations and damage the scope for future co-operation; which the report argues is essential to tackling this global problem. The report also argues that barriers to trade increase economic inefficiencies, impede the flow of new technologies, could have detrimental effects on developing countries and are likely to be complicated and difficult to introduce. An international carbon cap and trading scheme (the principal recommendation of the report) is seen as a better mechanism for achieving the transition to a low carbon economy. The UK Government will continue to work towards the development of an international scheme.

The EU ETS and the UK Climate Change Programme

17. Without the expected contribution of Phase II of the EU ETS, UK carbon emissions in 2010 are projected to be only just over halfway to the 20% target, a very significant shortfall. Treating Phase II as though it will deliver actual savings of 8MtC in full, and then treating this as though all 8 million tonnes of carbon reductions are going to take place within the UK, therefore makes a very significant difference to the credibility of this target. (Paragraph 60)

The EU ETS is designed to deliver emissions reduction where it can be delivered at least cost. Therefore reductions may well be delivered outside the UK. The Government's target recognises the contribution to emissions reductions made by firms buying emissions reductions from outside the UK. The Government's firm view is that there is no other sensible and transparent way of reflecting the existence of international emissions trading; although we agree strongly with the Committee that Government publications should be transparent about the level of emissions reductions taking place in the UK, and the net inflow (or outflow) of emissions reductions from elsewhere. Unless Member States can count emissions reductions from the Emissions Trading Scheme, there is limited incentive to use tight caps within the scheme as a means of achieving emissions reductions.

In the Energy Review we highlighted that the EU ETS does not, in itself, determine the amount of carbon emissions saved within the UK over time. This will be determined by

^{22[1]} P486-487, The Stern Review

the price of carbon (which is determined internationally) relative to the cost of lowering emissions in the UK.

The Regulatory Impact Assessment accompanying the UK's Phase II National Allocation Plan estimated that 3MtC (11MtCO₂) of cost effective abatement could be achieved annually in the UK with an allowance price of €20. However, because UK companies have the flexibility to buy emissions allowances when this is more cost-effective than reducing their own emissions some purchase of allowances can be expected by UK firms to meet the cap set. This flexibility ensures that savings delivered by UK industry are delivered at a lower cost than if companies were only allowed to follow the first route. The effort level of 8MtC also helps take the UK closer to the 2010 goal and increases the scarcity of allowances necessary for the market to function properly. Furthermore emissions will be reduced globally through the efforts of UK organisations. This is important, given the need to reduce concentrations of greenhouse gases on a global scale, and for these reductions to take place in the most cost-effective way.

Setting cutbacks from Business As Usual projections

18. Calculating cutbacks in emissions caps with reference to Business As Usual projections lacks certainty and effectiveness. As the Government has implemented it, it means making a specific cutback from a moving target; and if BAU projections are revised upwards, so the cap and the number of allowances to emit carbon moves up with it. In other words, if emissions are projected to be worse than expected, then rather than the cap becoming tighter to redress this extra upward pressure on emissions, in effect it is made looser to make it easier for participating firms to accommodate it. Both within the UK and across the EU ETS, allocations ought to be set with reference to a declining budget of absolute carbon emissions. (Paragraph 66)

Government believes that it is important to set caps with reference to the science of climate change, and in the context of international agreements. We recognise the uncertainties around BAU forecasts, but believe that they have a place in the wider discussion around how the cap should be set for future phases. We will be considering with the Commission and other MS how best to set future EU ETS caps as part of the Review of the ETS during 2007.

19. In addition to this lack of certainty, the practice of setting cutbacks from the moving target of BAU projections creates an obvious lack of transparency. When Defra announced last June that the UK's national cap for Phase II "is expected to deliver additional savings of 8 million tonnes of carbon each year, roughly equivalent to the emissions of 4 ½ million households", the likelihood is that most people including MPs, civil servants, and journalists would have assumed that this meant it would reduce the UK's actual carbon emissions by 8 million tonnes a year. They would surely not have imagined that this same 8MtC was in practice worth less, in terms of real reductions in emissions, than only three months before! This

underlines the need to set reductions from an absolute level of emissions, rather than a baseline of BAU projections which may vary significantly according to the differing assumptions that are fed into them. (Paragraph 68)

The emission projections for Phase II were subject to a full public consultation and to scrutiny from an independent projections panel (which was comprised of experts from industry, academia and NGO's) before being published alongside the UK's National Allocation Plan in August 2006.

The total cap on emissions from EU ETS sectors was set in relation to these projections and stands at 246.2MtCO₂ per year. This cap was accepted by the European Commission and is *fixed*. This means that while the required level of effort to meet the cap may change (e.g., if BAU emissions are higher than expected then the required cut to meet the cap is larger), the absolute cap on emissions from ETS sectors in the UK cannot change.

In terms of emission trading, BAU projections play an important role in indicating the level of scarcity that there will be in the scheme, which in turn helps give important indications as to the level of the carbon price. This is fundamental to understanding how effective the scheme will be. It is acknowledged that projections are subject to uncertainties and changes, especially those related to fossil fuel price assumptions, however, they are key to understanding effectiveness.

Phase II will not reduce UK CO₂ emissions by the amount stated

20. Because this is an emissions *trading* scheme, it is impossible to be sure that reducing the allocation of allowances given to UK installations will translate into emissions reductions within the UK. If all those UK installations which exceed their allocations in Phase II buy surplus ETS allowances on the market in order to make up their shortfall in allowances, it is theoretically possible the EU ETS might not be responsible for any emissions reductions within the UK at all. (Paragraph 69)

The Committee's theoretical observation is correct, but this is not likely. It should be noted that it is also theoretically possible that twice the level of emissions reductions could take place in the UK, but this is also unlikely. What is important is the level of emissions reductions caused by UK firms, either through their own emissions reductions or by paying for emissions reductions elsewhere.

21. A natural concern which arises from this relates to the transparency of Government reporting of progress against its 2010 target. By automatically ascribing all the savings projected to be generated by the UK's Phase II NAP as though they were being made within the UK, it is quite possible the Government might help to give a falsely reassuring picture of progress against its domestic CO₂ target within the UK. (Paragraph 70)

Emission reductions purchased overseas may be counted towards the UK's targets, provided this is consistent with the UK's international obligations. This ensures emission reductions can be achieved in the most cost effective way, recognising the potential for investing in low carbon technologies abroad as well as action to reduce emissions within the UK and encouraging countries to work together—as they must—to tackle climate change.

The draft Climate Change Bill proposes that the UK's targets should be put into statute to reduce carbon dioxide emissions through domestic and international action by 60% by 2050 and 26-32% by 2020, against a 1990 baseline. In a similar way to the Kyoto Protocol, proposals in the draft Climate Change Bill will also allow credits secured abroad – funded by the UK - to count towards domestic targets. There will be five-year carbon budgets, which will require the Government to set, in secondary legislation, binding limits on aggregate carbon dioxide emissions over five year budget periods, beginning with the period 2008-12. Three successive carbon budgets (representing 15 years) will always be set in legislation. The budgets will limit the total carbon dioxide emissions allowed within a five-year period and therefore every tonne of carbon dioxide emitted will count.

22. Yet another concern here is that it is not just that the Government is prepared to count CO₂ reductions that take place in other countries against its domestic target for CO₂ reductions in the UK, but that it is prepared to count reductions of other greenhouse gases, the global warming potential of which can be converted by mathematical formula into CO₂-equivalent, against its target for reducing emissions of carbon dioxide. Our concern here is not just regarding transparency, but that many of the projects to reduce exotic gases may be more dubious in terms of their transparency and impact on Business As Usual investment decisions and industrial processes. (Paragraph 71)

The flexibility mechanisms, including emissions trading, are provided for under the Kyoto Protocol and emission reductions achieved by them (often abroad) are, by the nature of the trading mechanisms, eligible for consideration in a country's emission reductions. The mechanisms provide flexibility by allowing reductions where it is most economically efficient—environmental integrity is assured by using global warming potentials to express the emissions in terms of the equivalent amount of carbon dioxide. Without this flexibility internationally negotiable targets would be less ambitious. Because greenhouse gases are well mixed in the atmosphere it does not matter whether an emission reduction takes place in the UK or elsewhere.

The linking of the EU ETS with the Protocol's project mechanisms, inevitably provides for use of credits originating from abatement of any of the 6 Kyoto gases; however use of any of these credits (CO₂ and other) in Phase II is only allowed up to a limit, reflecting the Kyoto principle that use should be supplemental to domestic action to reduce emissions. The operation of the project mechanisms (CDM & JI) is subject to agreed international processes and oversight of UN-appointed bodies.

Whilst it is true that some projects will be cheaper than others to carry out and some will produce greater volumes of credits (and one would expect the market to seek out the cheapest abatement options first), they all contribute to global emission reductions and are all subject to the same procedures—this includes the requirement for stakeholder consultation, assessment of environmental impacts, and demonstration of additionality (showing that emission reductions are greater than would have occurred in the absence of the project).

23. The Minister was keen to point out that the Government was limiting the use of CDM and JI credits within the UK NAP. Indeed, their use will be limited, to 8% of the UK's total cap. However, this is still a significant amount, representing some 5.3MtC; and this figure has been worked out by the Government specifically because it corresponds to two-thirds of what it describes as “the effort in Phase II”, or in other words the cutback of 8MtC from BAU projections. To be clear, then, the Government is allowing for, and expecting, two-thirds of the headline carbon savings it has announced as resulting from Phase II to take place, not just outside the UK, but outside the EU and probably in the form, not of carbon dioxide, but of carbon equivalent greenhouse gases. (Paragraph 73)

Government believes it is important that EU firms have the opportunity to invest in emissions reductions in developing countries by expanding and scaling up the use of instruments such as the Clean Development Mechanism. The large growth in the CDM market in the past year will benefit developing countries, the EU and the world by driving financial flows and transfer of low carbon technology to developing economies, and at the same time facilitating broader and deeper global emission reductions at least cost.

The EU ETS Directive requires Member States' use of the CDM to be consistent with the principle of “supplementarity”, whereby domestic action must constitute a significant element of the effort made to reduce greenhouse gases. In the second phase Government has set an 8% limit on the use of project credits per installation; this represents around two-thirds of the difference between business as usual emissions and the total cap (i.e. the level of effort in the UK), thereby balancing the need for domestic action with the benefits of investing in overseas projects. Within those limits, it is up to operators how they meet their commitments, whether by abatement, buying EU allowances or Kyoto credits. Given that the 8% limit applies per installation, it is highly unlikely that as much as 8% across the scheme will be delivered through CDM credits; many installations will choose simply to retire their own allowances to meet their emissions.

When it comes to the CDM, it is true that the greater proportion of the market is currently made up of non-CO₂ credits. However, all credits are generated by reductions in emissions of Kyoto gases, verified by the official UN procedures, and all equally eligible for use in the EU ETS. In any case it is worth noting, that non-CO₂ projects only account for roughly 25% of the total number of registered CDM projects: non-CO₂

credits are only in such high relative supply due to the high global warming potential of these gases and the corresponding large number of credits generated. In fact, numerically CO₂ projects constitute a large share of the market which is expected to grow in relation to non-CO₂ projects as projects currently in the pipeline come online²³.

24. It is essential, for transparency's sake, that in all its communications the Government from now on differentiates between reductions in emissions taking place *within the UK*, and reductions in emissions *funded by the UK*. Moreover, where it is referring specifically to reductions in carbon dioxide, it must differentiate between reductions in CO₂ and reductions in CO₂-equivalent. Where it refers to progress towards UK carbon reduction targets, it ought to give two separate figures: one referring to reductions solely of carbon dioxide and solely within the UK, and one including also the estimated reductions of GHG emissions financed abroad. Above all, it must ensure that whenever it publishes graphs depicting historic UK emissions and plotting their projected progress in future years, this always shows historic and projected emissions from the UK only, and never incorporates, in the same line, estimated reductions funded abroad. (Paragraph 74)

In the Government's view the most informative combination of data is to show

- i) UK CO₂ reductions within the UK
- ii) the total of CO₂ and CO_{2e} reductions within the UK and abroad funded by the UK.

The first shows the effect of actions within the UK itself and the second provides a measure of the UK's overall contribution to reducing emissions, which the impact to the global climate does not depend on the geographical location.

25. Another reason to treat the Government's statements as to the carbon savings to come from Phase II with caution is its record on reporting the savings to come from Phase I. Despite the lack of evidence that Phase I is driving any actual reductions in carbon emissions, the Government continues to make high profile statements that it is reducing emissions in the UK by some 4.6MtC a year. Given his personal and explicit endorsement of this figure before the Committee, the Minister must urgently tell us why, if this is the case, these "savings" of 4.6MtC do not feature anywhere in Government calculations of contributions to the 20% reduction target by 2010. If it is indeed the case that these "savings" are entirely notional—in other words, that they simply reflect a cutback from Business As Usual projections, and have not actually made any impact on UK emissions in reality—the Minister must explain why he failed to make this clear in his evidence to us; and the Government should immediately stop using this figure, and issue corrections to all official uses of it. (Paragraph 79)

23 According to data from the UNEP-Risoe Pipeline database (<http://www.cd4cdm.org/Publications/CDMpipeline.xls>)

The reference to the Minister's oral evidence given before the Committee is related to Q310. In 2003 verified emissions from EU ETS incumbent installations in the UK were 247.5MtCO₂, in 2005 verified emissions from EU ETS installations were 242.3MtCO₂. In this 2005 figure we have included emissions from new entrants that commenced in both 2004 and 2005. This represents a reduction in CO₂ emissions in the UK of 5.2MtCO₂.

The pre-budget report quoted in Paragraph 77 of the EAC report should have provided more clarity in making clear that the 4.6MtC reduction in Phase I would count towards UK targets but the reductions may not necessarily take place within the UK.

The Phase I reduction is not quoted in Government statements relating to the 2010 target for the good reason that they do not relate to emissions in 2010. Government is, however, clear that Phase I intends to deliver emission reductions over the period 2005-2007 of 4.6 MtC lower than they would have been without the contribution of the UK cap on ETS installations, with consequent benefits for the level of greenhouse gas concentrations in the atmosphere.

Implications for the UK's CO₂ targets

26. Given how instrumental the Government's projections of savings from the EU ETS are to its target for reducing CO₂ emissions by 2010, and given the profound lack of certainty surrounding these projections, the Government's record in meeting or even getting close to its 2010 target must surely be in severe doubt. The Government must provide an updated assessment of progress towards the 2010 target at the earliest opportunity, and look to revise its climate change policies in this light. This experience also highlights the need for the forthcoming Climate Change Bill to set out statutory arrangements for the Government to report to Parliament at least annually on national progress in reducing UK CO₂ emissions. (Paragraph 81)

27. Furthermore, considering the political capital that the Government has made out of its 2010 target, and the fact that it has featured as a repeated manifesto commitment, the Government has a democratic duty to be more transparent in its reporting of progress against this and future targets. As it stands, presentation of the UK's progress towards its carbon reduction targets is apt to mislead. (Paragraph 82)

The 2010 goal was always designed to be stretching. We are making definite progress towards it and do not accept that our presentation of progress is apt to mislead. The projected 16.2% reduction shown in the data released in January 2007 is testimony to that progress. We will continue to show transparency in the presentation and reporting of progress towards our targets through the independent Committee on Climate Change as proposed in the draft Climate Change Bill.

The draft Bill will require that the independent Committee on Climate Change should produce an annual report to Parliament on the UK's progress towards meeting its

legislated targets and carbon budgets. The Government will be required to respond to this report each year. This will provide a regular, transparent framework for the reporting of progress towards reducing carbon dioxide emissions.

28. While it is undoubtedly true that the carbon-intensity of economic growth in the UK has declined markedly in recent years, this is not on its own a guarantee of the success of the Government's Climate Change Programme, nor should it be a cause for complacency. It does not matter to atmospheric concentrations of carbon dioxide whether there has been a reduction in the carbon-intensity of economic production, but only whether absolute levels of carbon emissions are continuing to grow. The fact is that carbon emissions in the UK are higher now than they were in 1997, and while they are projected to be reduced by 2010, this reduction is set to fall some way short of the UK target. The Government must acknowledge that the UK Climate Change Programme is in some important respects failing to cut emissions in the UK as originally planned, implement the lessons as soon as possible, and share them widely with other governments. (Paragraph 84)

The Government agrees that regular and transparent reporting against its targets on greenhouse gas emissions is essential.

There are a number of reporting requirements under which the Government sets out progress against its 2010 CO₂ emissions reduction target. These include publication of the annual greenhouse gas emissions inventory, and the commitment, under the Sustainable Energy Act 2003, to report annually to Parliament on progress made towards the Government's four goals for energy policy. This includes data on emissions reductions. The 4th annual report will be published alongside the Energy White Paper 2007. The Climate Change and Sustainable Energy Act 2006 also requires the Government to report annually on progress towards achieving its greenhouse gas emissions reduction targets. The first report under this Act will include emissions data for individual gases including CO₂. This is due to be published in the summer.

In addition, the Government has produced projections of CO₂ emissions to 2010 and beyond through its Updated Energy Projections (UEP) exercise. This began in April 2003 to inform the National Allocation Plan of the European Union Emissions Trading Scheme. UEP projections were updated twice in 2006 and published alongside the Climate Change Programme (CCP06) and the Energy Review. The next set of projections will be published alongside the forthcoming Energy White Paper.

The draft Climate Change Bill which was published on 13 March includes the proposal that the Committee on Climate Change report annually on UK progress towards meeting long term targets and carbon budgets. These reports would include projections as well as reported emissions. The Government would be required to respond to this report.

The Government keeps its emissions targets under constant review, and proposed new measures in the Climate Change Programme and Energy Review that will help to close the gap between the targets and current emissions levels. Further measures will be set out in the forthcoming Energy White Paper. But higher than anticipated levels of economic growth and the recent rise in global oil and gas prices (for example causing electricity generation to switch to coal) have led to increases in our carbon dioxide emissions in recent years. As a result, achieving our domestic goal, to reduce carbon dioxide emissions by 20% below 1990 levels by 2010, has become more challenging.

The EU ETS is an essential part of our strategy to reduce carbon dioxide emissions. 50% of the UK's emissions are within the EU ETS. When the effects of the EU ETS are taken into account the 2005 results in the UK show that CO₂ emissions²⁴ in that year were 527.2MtCO₂, compared with 547.9MtCO₂ in 1997. This is a reduction in emissions of 3.8% from 1997 levels.

The decline in the carbon-intensity of economic growth has been the result of a decline in the energy-intensity of the economy, coupled with a decline in the carbon-intensity of energy. In recent years the latter trend has reversed, due to mainly in shifting price relativities between coal and gas. We continue to reassess the situation, and this is one reason for the revisions in the energy projections and will continue take action accordingly.

Proposals in the draft Climate Change Bill would provide a legal framework to manage future emissions, and form a fundamental part of the UK's strategy to address the challenge of climate change. The Climate Change Strategic Framework²⁵, published by Defra alongside the Bill, sets out the broader context for the Bill, including the international context, where the UK will continue to press for action through the EU, the G8 and the UNFCCC—recognising that only collective action can ultimately solve the global challenge of reducing greenhouse gas emissions, and the value of sharing the UK experience in combating climate change. More information will be contained in the Energy White Paper.

29. The difficulties experienced in meeting the 2010 target, and the complications caused by allowing equivalent reductions in other greenhouse gases in other parts of the world to count against a domestic target for reducing CO₂, raise further concerns about the Government's target for reducing UK CO₂ by 60% by 2050. It is vital that the Government does not rely on buying emissions reductions abroad to make up anything more than an insignificant amount of its 2050 target. In putting this target into statute as part of the Climate Change Bill, the Government must specify the minimum proportion of reductions that are to come in the form of CO₂ and take place within the UK. (Paragraph 85)

24 Figures don't include land use change and forestry

25 <http://www.defra.gov.uk/corporate/consult/climatechange-bill/index.htm>

We can unconditionally say as the Bill stands we are committing to action here and abroad that will deliver a 60% reduction in emissions relative to our 1990 baseline. To do so only through action at home or in Europe would not necessarily make sense. The UK will continue to press for an internationally binding agreement and the extent to which all countries are committed to making binding emissions reductions will provide the context for future decisions about the balance between domestic and international action.

Emissions trading sets a cap on overall emissions but within that cap it allows companies the flexibility on how they meet their targets. This ensures that emission reductions are achieved at least cost. The current Government framework adopts this approach and is entirely consistent, and supportive of the principles underlying the Kyoto Protocol. Emission reductions purchased overseas may be counted towards the UK's targets, provided this is consistent with the UK's international obligations. This ensures emission reductions can be achieved in the most cost effective way, recognising the potential for investing in low carbon technologies abroad as well as action to reduce emissions within the UK and encouraging countries to work together – as they must – to tackle climate change.

Recommendations for Phase III and the European Commission Review

Increasing the effectiveness of emissions caps

30. In the interests of making the EU ETS more effective post-2012, the Government should argue for the introduction of a single EU-wide cap to replace the current system of National Allocation Plans. To complement this, it is vital that the EU adopts a series of future carbon-reduction targets. Future ETS caps should be reduced in line with these targets, according to a robust and transparent formula which should be specified in an amended ETS Directive. The Government should also evaluate a range of proposed mechanisms for effectively modifying caps and allowance prices within phases, in order to ensure that the Scheme is able to respond promptly to new circumstances, and to give further certainty as to the long term level and trend of carbon prices. (Paragraph 93)

The overall cap that limits EU emissions is fundamental to the success of the trading scheme. It is vitally important that caps are set at a level that delivers emission targets and ensures sufficient scarcity in the market.

The Government is currently analysing issues relating to the European Commission's review of the EU ETS. One strand of that analysis will consider the costs and benefits of setting a single EU wide cap, the form that this cap might take and how it might evolve over time.

The Government agrees that giving greater certainty to long term carbon prices is important. Businesses and investors need clarity not just on the carbon constraints they will face in the next five years, but across the time-horizon relevant to investment decisions. The European Council's announcements of targets for emissions reductions by 2020 are therefore particularly welcome.

31. The Government should be commended for pressing the case for such EU-wide emissions targets for 2020 and 2050. However, given that it has described these as targets for “greenhouse gases” as a whole, and has explicitly referred to the use of Clean Development Mechanism credits as a means of meeting them, we are unsure as to the stringency and effectiveness of these proposals. In particular, we note that the proposed target for 2050 would appear much weaker than the Government’s own target for the UK, which refers solely to carbon dioxide. The Government should rephrase these proposals, specifying the minimum amounts by which carbon dioxide should be reduced from within the EU itself. (Paragraph 94)

Government notes the Committee’s views. It is unlikely that other Member States will want to engage now in a process of reformulating the targets set out by the European Council subsequent to publication of the Committee’s report.

The EU has adopted robust goals for reducing emissions and noted its intention to go further as part of an international agreement. These goals are framed in terms of greenhouse gas emission reductions, consistent with the nature of international commitments. The UK Government has decided to adopt even more ambitious goals, aiming to reduce emissions of not just greenhouse gases but specifically carbon dioxide. The Government will be considering the appropriate balance of domestic and international action, in both the traded and non-traded sectors, in meeting these goals.

Improving the allocation of allowances

32. The Government should be commended for auctioning a higher percentage of allowances in Phase II than any other Member State. Moreover, it is right to press for full auctioning of allowances throughout the Scheme in the future. In Phase III it should auction 100% of the power sector’s allocation, as such firms should be able to pass these costs through without fear of international competition; indeed, this will stop them from making windfall profits. For exactly the same reasons, it should also press hard for the aviation sector to be subject to a 100% auction across the EU from the time it enters the Scheme. For all other sectors, the Government should introduce at least a significant proportion of auctioning, with a commitment to increasing this proportion in successive phases; and with the remainder of their allocations being made on the basis of best available benchmarks. (Paragraph 98)

The Government is currently considering its auctioning policy for the Review of the Directive and for Phase III and will take account of the Committee's views on this matter.

Where free allocation continues, at whatever level, sectoral or sub sectoral benchmarking would help to remove perverse incentives and would provide a more transparent and standardised allocation methodology.

For aviation the Government supports a mix of auctioning and benchmarking. Auctioning allowances that would otherwise have been allocated for free reduces the potential for airlines to make windfall profits.

33. The Government should carry out and publish detailed reviews of the best uses of auction revenue, based around the principle of speeding the development and takeup of new low carbon technologies, but also around the benefits gained by recycling revenues to businesses and individuals in the form of reductions in other taxes—especially where this is with the explicit design of shifting consumption patterns to a more sustainable basis, for instance by reducing VAT and VED on low carbon cars. More specifically, with only a year to its scheduled commencement, the Government should urgently clarify the funding and objectives of the new Environmental Transformation Fund. Among other matters, this should feature detailed evaluations both of where its funding will be most effective, and of what the impacts of incurring these costs will be to contributing firms (including to their potential investment in new low carbon technology) and how this might best be mitigated. (Paragraph 99)

Decisions on UK investment from the Environmental Transformation Fund will be taken as part of the Comprehensive Spending Review, as was made clear when the fund was announced in June 2006.

Streamlining and harmonising the running of the Scheme

34. It is imperative that the Government presses not only for a single EU-wide cap, but for harmonisation of the way in which this is broken down into national and sectoral allocations. Chief amongst these priorities should be harmonisation of: i) the proportions of allocations to be auctioned; and ii) to be made up by CDM and JI credits. The Government should also engage stakeholders, within the UK and abroad, as to the potential benefits and practicalities of introducing EU-wide sectoral caps, which might automatically harmonise such aspects across the Scheme. (Paragraph 101)

The Government is considering various means for harmonising sectoral allocations. These include: harmonising benchmarks, and harmonising maximum levels of free allowance allocation / minimum levels of auctioning by sector.

The Government is committed to engaging stakeholders in the UK and abroad to discuss all aspects of the Review including working closely with interlocutors in other Member States and the European Commission. This will include consideration of how best to set limits on use of CDM and JI credits.

35. We welcome the Government's leadership on lessening the burdens faced by smaller emitters, not least because the Government is consulting on introducing the Energy Performance Commitment (EPC), a separate regime into which they will presumably be transferred; this suggests to us that they will not fully escape an emissions reduction regime, but that its administrative demands will be made proportionate to their capacity and impact on emissions. In addition, we sympathise with the concerns expressed as to the possible complications and administrative burdens experienced by firms which may find themselves subject to both the EU ETS and EPC, as well as the Climate Change Levy regime. Calls for such firms to be exempted from all but one regime, however, must be treated with a great deal of caution, considering the potential impact on both the finances and emissions not just of those firms in question, but of their competitors. We will investigate these issues in detail in a future consideration of the Climate Change Levy, and may also look in further detail at some point at the EPC. (Paragraph 104)

Government feels that the EU ETS can improve its efficiency by ensuring it meets better regulation principles: for example, by removing small emitters from the scheme could substantially reduce overall administrative burdens and improve scheme cost-effectiveness, with minimal impact on overall emissions coverage.

The EU ETS does not operate in isolation. Other European legislation, such as the Energy Performance from Buildings Directive, the EU Energy End Use Efficiency and Energy Services Directive, and overall EU emissions reduction targets place an imperative on operators outside the EU ETS to become more energy efficient and to reduce emissions. Therefore if, through the Commission's review of the EU ETS, small emitters are excluded from the EU ETS, operators will still be covered by measures to reduce emissions, and by an overall framework to deliver overall EU economy wide emissions targets.

The Government has consulted on proposals for new national mechanisms to tackle emissions from the Large Non-Energy Intensive (LNEI) sector—that part of the economy characterised by business and public sector organisations whose energy use typically accounts for between 1% and 3% of total operating costs. The Energy Performance Commitment (EPC) is one of these proposals.

The EPC proposal is for a mandatory, auction-based emissions trading scheme which will deliver emissions reductions of 1.2MtC per year by 2020 from the LNEI sector. Under the proposal outlined in the November consultation, large organisations from both the public and private sectors would be covered by the proposed scheme if their mandatory half-hourly metered electricity consumption is over 3,000MWh per year.

Organisations likely to be covered include large retailers and supermarkets, hotel chains, large office based service organisations, light industry and manufacturing, water companies, Government departments, hospital, universities and large local authorities. Analysis shows that these sectors can achieve significant cost-effective emissions reductions, and that the EPC would enable those savings to be delivered.

It is important to emphasise that many EU ETS “small emitter” installations belong to large non-energy intensive organisations (such as airports and universities, who will have boilers over the capacity threshold and hence be in EU ETS for the direct emissions from those boilers).

It is likely that small emitter installations dropping out of the EU ETS would be covered by the EPC if the proposal goes ahead. However, Government is conscious of the potential overlaps between domestic climate change policies. Therefore, the EPC proposal includes a complete exemption for firms with more than 25% of their emissions in a Climate Change Agreement to help reduce administrative burden. The EPC proposal also excludes any Climate Change Agreement emissions and any direct emissions that are already covered by the EU ETS. Electricity and other non-EU ETS emissions would be covered in the EPC. Government estimates that only around 5% of the 5,000 potential EPC organisations would be covered by both EPC and the EU ETS. Government is not excluding these organisations as they account for a significant quantity of emissions coverage and, moreover, analysis indicates that EPC could deliver net financial benefits to such organisations.

However we recognise the Committee’s concerns about the interface between policy measures such as the EPC and Climate Change Levy / Climate Change Agreements package.

Government will continue to review implementation of our overall package of policy measures to ensure the best fit of emissions coverage to administrative requirements, within the context and framework of the Climate Change Simplification Project.

Protecting firms subject to the EU ETS from International Competition

36. The Government should consult widely in the UK and abroad as to the benefits and practicality of the Carbon Trust’s three proposals for protecting vulnerable industries against international competition from firms not subject to the EU ETS or equivalent carbon constraints. In view of the potential difficulties of two of these options, it appears that the use of a border tax adjustment might have the most potential; however, the Government must urgently clarify whether this would indeed pass WTO criteria. (Paragraph 107)

Please see response to 16.

Expanding the Scheme and linking it with others

37. While we would broadly welcome the Government's efforts to expand the EU ETS towards forming a global carbon market, we do so with some caution given the potential to weaken the Scheme by changing its terms. Our first concern is with the use within the Scheme of CDM and JI credits. Limits on the use of such credits should not just be harmonised across the EU ETS, but the Government should also press for a qualitative limit to be imposed on the use of these credits, to ensure that they are funding genuinely additional emissions reductions, and that they make a contribution towards sustainable development. (Paragraph 109)

In expanding the EU ETS to form part of a global carbon market, it will be important to ensure we maintain the environmental and economic effectiveness of the market. As noted above, the Government will be considering future refinements to the Scheme, including different aspects of cap-setting and possible means of harmonisation, in consultation with stakeholders. We will look at a range of options, to assess how the EU ETS can best support the development of a robust and effective CDM and JI market.

More broadly, we rely on the international institutions and processes to ensure emission reductions achieved from the project mechanisms are genuinely additional and contribute to sustainable development. The UK will continue to work internationally for strong and effective processes, both now and in the context of a future climate regime. It is unlikely that we shall achieve deep cuts in emissions without an emissions trading market with broad, deep coverage.

38. We are not sure about the Government's argument that expanding the EU ETS will necessarily "bring about emissions reductions at lower cost". The Government should clarify its own understanding of the range of carbon prices required to stimulate the necessary level of investments in carbon abatement within the EU ETS, and seek to form a consensus on this across the EU. Considerations of the terms on which other sectors, gases, and trading schemes could be linked or encompassed by the EU ETS could then be made with reference to the projected impacts on this model price. (Paragraph 111)

As set out in the Stern Review, "in general, the deeper and more liquid a market, the harder it is for any individual trade to affect the overall price level, and hence the less volatile the market will tend to be. Introducing different economic sectors or countries to a market can also reduce the impact of a shock in any one sector on the scheme as a whole. In addition, the greater the degree of flexibility about what type of emissions reductions are made and where they are made, the lower the cost will be."

As explained in the response to recommendation 17 Government has estimated that 3MtC (11MtCO₂) of cost effective abatement could be achieved annually in the UK with an allowance price of €20.

The European Commission is funding a major study (Sectoral Emission Reduction Potentials and Economic Costs for Climate Change— SERPEC-CC) to identify the least-cost contribution of different sectors and gases for meeting post 2012 GHG reduction targets. The outputs of the study should provide some useful information on the range of carbon prices that would be needed to stimulate investment in abatement technologies.

A principal motivation for setting quantity limits through emissions trading caps is to reveal abatement technologies and opportunities. Whilst it is important for the Government to understand the relative costs differences of various abatement technologies it is also important to recognise that Ministers and civil servants are not best placed to make judgement regarding the relative merits of abatement technologies. The effectiveness of emissions trading is, in part, because it does not require judgements to be made by policy makers on abatement opportunities, but induces the market to reveal the best abatement options through the market forces of cost and effectiveness.

39. While we support the principle of including aviation in the EU ETS, this will only be effective if the terms of its inclusion are such to constrain and ultimately reverse the rise in aviation emissions. However, we have severe doubts as to its effectiveness under current proposals. Notably, the impact on airfares, and hence demand for flying, is projected to be relatively minor. Meanwhile, a proportion of what increase in prices there will be is expected to lead to windfall profits for airlines, given that their initial allocation of allowances will be given to them almost entirely for free, and as they, like power companies, will be able to pass on the market value of their allowances to customers. Moreover, there are still no concrete proposals for reflecting the total contributions of aviation to global warming, considered in most estimates to be between two and four times that from CO₂ alone. (Paragraph 115)

Under the European Commission's proposal aviation will be allocated allowances by reference to the sector's average emissions between 2004-2006. Aviation will not therefore receive allowances for its total emissions on the proposed date of inclusion in 2011. Consequently, emissions trading will provide an incentive to reduce emissions since it creates a market for reductions in carbon. Companies that innovate to reduce emissions more quickly than expected, will benefit financially from their progress, while those that make less progress will be required to contribute to reducing emissions by funding reductions made elsewhere.

Whatever the final cap level, the UK Government recognises that there may be limits to the extent to which aviation will be able to invest in abatement equipment to reduce emissions in the medium term; but the Government believes that it is right that the costs of flying should reflect the environmental impact as measured in the carbon price. The benefit of the EU ETS therefore is that fixed arbitrary limits in the aviation sector do not need to be set, but instead focuses on the emissions performance of the overall economy.

This provides a cost-effective way of reducing CO₂ emissions whilst responding to the strong demand for air travel.

The Government recognises the potential for windfall profits for the aviation sector if allowances are to be allocated for free. We are conducting further work on the potential for cost pass through, as in a competitive industry such as aviation the extent of cost pass through is uncertain, in order to determine the optimum level of auctioning for aviation. We have invited comments on this issue in our consultation.

While the Commission's proposal covers CO₂ emissions only, it has made a commitment to bring forward a proposal to address the impacts of non-CO₂ emissions from aviation by the end of 2008.

The contribution of non-CO₂ emissions from aircraft to climate change, especially at high altitudes, are less well understood than those of CO₂ and consequently are more difficult to address. Our view is that this would best be done through an ancillary instrument that addresses directly the emission or emissions targeted. We therefore welcome the Commission's commitment to look at this.

Expansion of the ETS to other greenhouse gases is also being analysed within the general review of the scheme.

40. It is essential, therefore, that the terms of aviation's inclusion are considerably strengthened in Phase III. Notably, lessons should be learned from the way in which the power sector has earned windfall profits in Phase I; as airlines similarly should be able to pass these costs through without fear of international competition, so their allocations should be 100% auctioned. Not only will this lead to a more efficient allocation process and prevent them making windfall profits from the Scheme, it should also focus their attention more on the costs of carbon, and raise valuable revenue. The proportion of auction revenue corresponding to flights within the EU could be earmarked for spending on rail alternatives to short haul flying within Europe. As for the remaining revenues, relating to long haul journeys, the Government and the Commission should make comparative studies of the benefits of the different ways in which these can be used, including using them to fund reductions in other taxes. Equally, the Commission must not waver in pressing for all arrivals and departures, not just intra-EU flights, to be included in the Scheme. The Government must maintain its voluble campaign in support of this principle. (Paragraph 116)

The Government is fully aware of the need to learn from early experiences of the EU ETS, and careful consideration will be given to scheme design.

The Commission proposal states that the proceeds from auctioning must be used to mitigate and adapt to the impacts of climate change. As made clear in response to 12, Centrally dictated hypothecation in this way is not acceptable to the UK Government.

The UK Government will continue to press for the most environmentally ambitious scheme achievable. It is our view that an all departing and arriving flight option would provide the most environmental benefit as it would cover a relatively high proportion of flights and so include more of the aviation sector within the scope of the EU ETS. An all arriving/departing scheme is expected to lead to an annual reduction by 2020 of 183MtCO₂ as opposed to 44MtCO₂ for an intra-EU option. An all departing model would lead to a reduction of 115MtCO₂ on the same basis.

41. Even if the terms on which aviation is included under the Scheme are toughened in Phase III, we still have severe doubts that the Scheme itself will be responsible for any significant improvements in the carbon efficiency of the overall fleets of aircraft affected, given the costs and technological difficulties in doing so. Rather, the chief potential contributions of the EU ETS regarding aviation would appear to lie more in simply increasing the costs of emitting carbon within the Scheme. But this depends on there being a strong cap on aviation emissions. If the cap is too weak, then its impacts—on airfares and demand for flights, and on the wider price of allowances— may be equally undermined. (Paragraph 117)

Our stated objective is for an environmentally challenging scheme with a suitably challenging but realistic cap.

The main contribution of aviation to emissions reductions efforts under the EU ETS will be to cover its emissions above the cap through the purchase of reductions that can be produced more cheaply by other sectors. Most importantly inclusion of aviation in the EU ETS will mean that the costs of flying will reflect the environmental impact to a greater extent, both in the UK and in other EU Member States.

The Commission proposes that the total number of allowances to be allocated to the aviation sector would be 100% of emissions from aviation on an average of the years 2004-2006. The initial estimate is that based on these years this cap would be 25-40% below actual emissions if the sector joined the scheme in 2011. Aviation is therefore likely to be a significant net buyer in the EU ETS market.

42. Under current proposals, the allocation given to the aviation sector will be capped at its average level of emissions in 2004-06. In discussions regarding the level of the cap set for aviation emissions in Phase III, it would not be a surprise if airlines argued strongly that the initial allocation should be updated, and set at a baseline taken from years closer to 2012. It is vital for the integrity of the cap on aviation, and with it the integrity of the Scheme as a whole, that the Commission resists such calls. Furthermore, the Commission should put in place a clear commitment to reducing—even if gradually—the allocation set aside for aviation from its initial level. It would risk fatally undermining the effectiveness of the EU ETS—both directly, and indirectly through provoking opposition from other sectors—if the overall cap set by the Scheme was reduced in each phase, but the sectoral cap given to

aviation was allowed to rise or even simply stay the same. (Paragraph 118)

The Government recognises the potential for airlines to argue for a later baseline year and the possible impacts of this on the effectiveness of the scheme.

We will consider any representations made to us but as stated at Q41 our objective is to achieve a challenging but realistic cap.

The Government would like to see a provision added to the Directive enabling the cap to be revised. This review would provide a mechanism to ensure that the environmental effectiveness of the scheme is maintained, particularly as more challenging targets are achieved through international negotiations. The date of revision would depend on the actual start date of the scheme and should be reviewed in context of the general review of the EU ETS.

43. However the terms of aviation's inclusion in the Scheme are reformed and strengthened, complementary measures will be needed and must be introduced or intensified, aimed at constraining the growth in air travel and reflecting its full external costs, including all its non-CO₂ contributions to global warming. In addition to the "upstream" focus of the EU ETS—that is, directly affecting the airlines—the Government, and other Member States, should continue and increase their focus on "downstream" measures, designed to affect private and business decisions as whether or not to fly. Moreover, the Government must work to progress the development of an EU-wide measure to tackle NO_x emissions, and should also lead the way in developing measures that reflect the remaining non-CO₂ effects. (Paragraph 119)

The UK government has always clearly stated that although the EU ETS is our preferred approach to addressing aviation's growing climate change impact, it may not be a total solution. We are therefore continuing to explore the use of other measures to tackle this issue. For example, the recent APD rise in recognition of the climate change impact of aviation. APD will continue to be reviewed, as are other taxes.

In addition we welcome the Commission's intention to publish a proposal at the end of 2008 detailing measures for dealing with the non-CO₂ impacts of aviation, and hope that rapid progress can be made at the EU level in developing and agreeing effective instruments.

44. Finally, now the Commission has published its proposal on aviation, there is no excuse not to include the greenhouse gas emissions of EU flights within the proposed targets for EU emissions reductions to 2020 and 2050. The Government must clarify that its proposed EU targets include aviation emissions, and should also revisit its UK target for 2050 to include the emissions of all flights arriving at and departing UK airports. (Paragraph 120)

International aviation emissions are not included in the 2050 target since there is currently no agreed international agreement on how to allocate such emissions to countries. The UK is active in lobbying for support within the international community for the inclusion of international aviation in future agreements. Until international aviation is included in the Kyoto Protocol or considerable global progress is made in the International Civil Aviation Organisation, it would be inappropriate to define the UK's international emissions to include aviation in the proposed targets for 2050 which might well be inconsistent with international agreement when it is reached. We will continue to work through ICAO to make the progress necessary for the development of international measures to tackle climate change.

45. As yet we have not been convinced by the case for the inclusion of surface transport within future phases of the Scheme. The emissions from this sector can more effectively be tackled through other measures, such as motoring taxes, road charging, and mandatory fuel efficiency agreements with car manufacturers. Moreover, in view of the practical difficulties involved, we believe that it is not just less preferable that surface transport is covered by the EU ETS but conceivably quite unlikely that it ever would be. There is a danger, then, in the Government's mooted it as a possibility, that it may function as a red herring, and confuse or retard debate on other means of reducing emissions from road transport. At the very least, the Government must finally publish some details of its proposal, and show how it might deal with these reservations. (Paragraph 122)

Given that transport emissions contribute a quarter of total UK carbon dioxide emissions, and it is the only sector where emissions are projected to increase in the future it is important that the Government fully considers the full range of policy options available to help the transport sector to reduce its climate change impact.

The EU ETS Directive lists transport as one of the sectors that should be considered when assessing whether to expand the scheme in its current review. The Government therefore made a commitment in the Energy Review Report to engage with key organisations, the European Commission and other EU member states to ensure that the potential for future inclusion of emissions from surface transport in the EU Emissions Trading Scheme (ETS) is given serious consideration.

Emissions trading in the surface transport sector could potentially be a cost-effective way for the transport sector to reduce its climate change impact. However, emissions trading is only one of a number of tools to reduce transport emissions, and is therefore being considered as a complementary measure rather than in isolation or in place of other measures.

It will be important to take account of how emissions trading in the surface transport sector might work alongside other important policy measures at our disposal for reducing greenhouse gas emissions from the transport sector, such as biofuels obligations, EU tailpipe emissions targets for new cars and consumer information.

It will also be necessary to look at the potential impact of including surface transport in the EU ETS on carbon price, fuel price and industrial competitiveness as well as the potential impact on other EU ETS sectors, before we come to a definitive view.

Defra published an issues paper on the EU ETS Review in March 2007 to seek stakeholders views on a range of issues, including the possible inclusion of other sectors in the EU ETS. Stakeholders have been asked to comment by 11 May. The comments received, along with ongoing DfT analysis will help to inform the UK's negotiating position for the EU ETS Review. The Government intends to publish a formal consultation later this year. The Government intends to publish a formal consultation later this year.

46. The maritime sector is responsible for 4% of the EU's CO₂ emissions. Despite this, there is little discussion regarding the inclusion of European shipping, in stark contrast to other transport sectors. We now urge the Government to explore with European partners the potential of including the maritime sector within a future phase of the EU ETS. As a first step, the Government should press the European Commission to commission a detailed study to quantify the emissions and assess the practicalities involved. (Paragraph 123)

Shipping is a global industry and climate change a global problem. Therefore the UK has been pressing the International Maritime Organisation (IMO) to address seriously the contribution of the maritime sector to climate change. To date we have tabled two papers at the IMO's Marine Environmental Protection Committee (MEPC) outlining our support for cost-effective measures to deal with these emissions, such as through an emissions trading scheme. We will continue to use our influence to impress upon the committee the urgent need for the international community to take effective measures to deal with the climate impacts of shipping.

No decision has yet been taken on whether to include emissions from international shipping within the EU ETS, however we are investigating the options that might exist regarding this, as well as the obstacles to progress. The Department for Transport intends to commission detailed research on this issue shortly. We welcome the recent research from the Commission examining potential European level measures. One of these, the incorporation of shipping into the EU ETS, was deemed worthy of further consideration. The Government supports the judicious expansion of the EU ETS to new sectors – bearing in mind the Committee's observations (recommendation 37) on the risk of inadvertently undermining the scheme—and we intend to press the Commission to build a robust evidence of the economic impacts and practicalities involved in pursuing its expansion to shipping.

Increasing the transparency and accountability of the Scheme

47. To aid public understanding of the workings and progress of the Scheme, accountability of individual firms, and parliamentary scrutiny of the roles of national governments and European institutions, there ought to be published a high-profile annual report of the EU ETS. This report should set out the allocations and actual verified emissions in that year, broken down both by Member States and by individual installations. In addition, and in much the same way as a departmental or commercial annual report, it should feature a commentary on important aspects of the Scheme's operation in that year. (Paragraph 126)

Individual installation allocations and verified emissions are available on Community Independent Transaction Log (CITL). Under the Commission's proposed Registry Regulation Amendments the data available on the CITL will increase to show information on new entrant allocations. It is possible to obtain installation level data for every Member State on the CITL.

For the 2005 data Defra produced a comprehensive series of reports²⁶ on the operation of the scheme in the UK. These were produced in close cooperation with industry. The main UK summary report includes analysis of the data across the EU.

Putting the EU ETS into perspective

48. The EU ETS is already a hugely significant development in the global effort to tackle climate change. Although its record so far in actually driving carbon reductions is unproven, it is far and away the largest and most sophisticated mechanism potentially capable of capping international emissions; and, as the Commission's decisions on the Phase II NAPs show, it is moving slowly in the right direction. As such it is providing the inspiration and template for the construction of emissions trading schemes in other countries, and, as the Stern Review notes, has the potential to become the nucleus of a single global carbon market. In this respect, it must aim to become the "gold standard" for all other emissions trading schemes to emulate and be brought through market forces to comply with. (Paragraph 127)

The Government welcomes the Committee's view of the potential that the EU ETS has. We have further expressed this in the UK Government Vision on Emissions Trading²⁷ published alongside the Stern Review.

49. From pioneering the early UK Emissions Trading Scheme, to setting tougher National Allocation Plans than other Member States in the EU ETS, to leading the debate on expansion of the Scheme to take in other sectors and countries, the Government has consistently showed international leadership in helping to establish

²⁶ <http://www.defra.gov.uk/environment/climatechange/trading/eu/results/index.htm>

²⁷ http://www.hm-treasury.gov.uk/documents/international_issues/global_challenges/int_globalchallenges_index.cfm

the Scheme and see it fulfil its potential. In its commissioning of the Stern Review, we also hope that it has played an ultimately significant role in persuading other countries, notably the United States, Canada, and Australia, to link to or join the Scheme as soon as practically possible. (Paragraph 128)

The Government shares the Committee's view. Emissions trading schemes are emerging around the world and we welcome the development of these schemes. We will continue to engage in dialogue with other countries and regions that are developing emissions trading schemes in order to share information – including on some of the lessons from phase 1 identified by the Committee - and to support the development of these schemes and to actively encourage the development of effective links with the EU ETS.

50. At the same time, the contribution to be made by the EU ETS on its own ought to be kept in perspective. A strong theme to emerge from our inquiry was of the need to supplement the market mechanism of the EU ETS with other measures in order to ensure it delivers desired outcomes. Appeals for such extra measures came from a wide variety of groups: investors, economists, power companies, industrial lobbies, trade unions, and environmental NGOs. What united these appeals was the concern for certainty and security—over the long term price of carbon, over the fit between the EU ETS and energy policy, over protection from international competition not subject to similar carbon constraints, and over the R&D required to deliver step changes in low carbon technology. Uncertainty over all these issues is clearly impeding investment and the transition to a low carbon economy. The Government must look again at what it can do on its own, and what it can do to influence action at the EU level, to provide the certainty, assistance, and protection required to complement the bare workings of the Scheme itself. (Paragraph 129)

The Government agrees that a carbon price is a necessary—but not sufficient—element in securing emissions reductions. While emissions trading is at the heart of Government policy, it is accompanied by a wide range of the sort of further measures the Committee describes, as set out in the 2006 Climate Change Programme, and in the Energy White Paper.

51. Overall, there are perhaps two main and related weaknesses in the Government's statements on emissions trading which it needs to recognise and resolve. The first is the contradiction between the Government's reliance on the EU ETS all by itself to set a price on carbon high enough to incentivise investment in low carbon infrastructure, and its enthusiasm for expanding the Scheme in order to lower the price (and resulting cost impacts on business and consumers), and thus make it more politically and economically acceptable. (Paragraph 130)

There is no logical contradiction. Without the efficiency of the market we will never get international agreements deep enough to deliver the carbon price.

As concluded by the Stern Review, carbon pricing alone may not be sufficient to incentivise desirable levels of investment in low carbon technology and other policies may be needed to complement carbon pricing in order to achieve a transition to a low carbon economy. In terms of expansion, trading emissions reductions globally and increasing the coverage of trading schemes will improve the cost-effectiveness for all in achieving challenging emission reduction targets. The Government believes firmly that maximising the cost-effectiveness of our delivery of ambitious targets is important both in its own right, and in order to encourage the wider international action which is needed.

52. The second concerns the Government's ambition for relatively tough carbon reduction targets for the UK and EU, which themselves depend on global targets in which the whole of the developed world makes steep cuts, while the whole of the developing world has to meet challenging caps on its growth. The contradiction here lies in the Government's endorsement of and reliance on making up shortfalls in such national targets by buying carbon credits from other countries: if everyone thinks like this, then nobody will reduce any emissions, and nor will there be any surplus credits to buy. Exactly the same applies between different economic sectors. The Government must face up to the fact—and start challenging the British population, other governments, and global businesses to do likewise—that ultimately neither the UK, nor any country, nor any industry, can simply buy its way out of meeting its carbon commitments. (Paragraph 131)

There is no contradiction. Government seeks maximum participation by developed and developing countries towards stabilizing atmospheric concentrations at safe levels in the atmosphere. It is far more likely that we will secure the necessary commitments with emission trading than without it.

The UK, and the EU, have already made commitments to reduce emissions as a sign of our commitment to addressing climate change. But this is with a view to agreeing a global climate change regime, as we recognise that we will need strong international action to tackle the problem. The Government believes that carbon markets will continue to play an important role in the future. However, we believe that a future international climate change framework will need a number of different elements, covering a range of commitments and mechanisms to drive the needed level of global emission reductions. We will continue to press for this internationally.

The Government recognises the need to balance domestic and international action: we should not, and indeed cannot, be using the mechanisms to avoid taking action ourselves to reduce emissions. The Government is committed to ensuring all sectors of the economy reduce their carbon emissions. As mentioned in the response to recommendation 50 the draft Climate Change Bill represents our determination to address both the causes and consequences of climate change.

53. Above all, the Government must ensure that it is not investing a magical belief in emissions trading as a miracle cure for global warming – something which will, all by itself, necessarily reduce carbon emissions, necessarily lead to a step change in technology, and necessarily achieve this at low cost and without harming productivity. The most important role for emissions trading is to add a cost to carbon. This can help to incentivise low carbon technological development and market transformation, but in doing so it is likely to raise costs and impinge on economic activities in some areas, even if the trading element will help to constrain these costs. Moreover, it cannot *guarantee* sufficient progress in the timescale required; and if new technologies cannot deliver enough reductions in time, then ultimately we will have to reduce the volume of our carbon-related activities. Emissions trading will not spare us from making difficult decisions and personal or collective sacrifices on the road towards meeting our global carbon reduction targets. (Paragraph 132)

The Government shares the Committee's view that emissions trading should be seen, neither as the ultimate solution to tackling climate change, nor as the way to avoid difficult choices about reducing emissions. It is a way to increase efficiency and thereby greatly increase the chance of achieving the emissions reductions we need globally.

The Stern review of the economics of climate change confirms that the costs of global action to mitigate the most dangerous effects of climate change are significant but manageable, as long as action is taken multilaterally and urgently. The EU ETS should be seen as a building block for an effective global response to the problem of climate change. The challenge is how to build from these foundations and work internationally to ensure that dangerous climate change is avoided.

May 2007

Appendix 2—Correspondence

Letter from Committee to the Secretary of State

Last month the Environmental Audit Committee received the Government Response to our report, published in February, on *The EU Emissions Trading Scheme: Lessons for the Future* (Second Report of Session 2006-07, HC 70).

We welcome this Government Response for its thoroughness, openness and constructive nature. At the same time, there are one or two points which we would like to clarify, and which I detail below. Accordingly, while we have so far reported the Response to Parliament, and made it publicly available by uploading it to the Committee website, we

have not yet published it. When we do so, we would like to include your reply to our points within the covers.

Impacts of Phase I

The Response to Recommendation 25 (p 19 of the Government Response) is, it must be said, very confusing. Notably, it refers to two different figures (5.2MtCO₂ and 4.6MtCO₂) as representing carbon savings from the UK's participation in Phase I of the EU ETS. The 5.2MtCO₂ figure appears to be the actual difference in recorded emissions of UK installations in 2005 versus 2003. The 4.6MtCO₂ figure appears to be a notional reduction from Business As Usual (BAU) projections.

Perhaps most confusing, in answer to our query as to why the 4.6MtCO₂ figure does not feature anywhere in Government calculations of carbon savings that are contributing to the 2010 target to reduce UK CO₂ by 20%, the Response states: "The Phase I reduction is not quoted in Government statements relating to the 2010 target for the good reason that they do not relate to emissions in 2010. Government is, however, clear that Phase I intends to deliver emission reductions over the period 2005-2007 of 4.6MtCO₂ lower than they would have been without the contribution of the UK cap on ETS installations".

We would thus like to ask:

- 1. What evidence does the Government have to show that the saving of 5.2MtCO₂ is caused by the EU ETS, and not merely coincidental with it?**
- 2. Why is the 4.6MtCO₂ figure not included within calculations of the contributions made by policy measures under the UK Climate Change Programme towards the 2010 target? What precisely does it mean to say that it does not apply to the year 2010; especially when, for instance, the Fuel Duty Escalator is still included in these calculations, despite the fact it was abolished in 1999?**

EU ETS and transparency of UK carbon reduction targets

We welcome the sentiments in the Government Response to Recommendation 17 (pp 13-14), which express the Government's strong agreement that "Government publications should be transparent about the level of emissions reductions taking place in the UK, and the net inflow (or outflow) of emissions reductions from elsewhere", leading to the specific assurance, in response to Recommendation 24 (p 18), that:

In the Government's view the most informative combination of data is to show

- i) UK CO₂ reductions within the UK
- ii) the total of CO₂ and CO_{2e} reductions within the UK and abroad funded by the UK.

However, we are concerned that the Government must make these differences truly explicit and obvious to any observer. We draw attention to Defra's press release of 31 January 2007,

“Greenhouse gas statistic show UK on track to double Kyoto target” (Ref 25/01). Rather than clarifying that emissions allowances purchased through the EU ETS (and thus also, from 2008, the CDM) may translate to reductions taking place abroad, the press release incorporates projected EU ETS savings into UK emissions figures with the use of such rather bland phrases as: “Adjusted for emissions trading”, “when the effect of the EU Emissions Trading Scheme is taken into account”, and “CO2 incl ETS”.

We further draw attention to Budget Report 2007, which in one graphic incorporated these estimated savings arising from the EU ETS in 2005 into its sole presentation of UK emissions:

[Same graph as in Figure 2, page 11 in the body of the text]

As the note at the bottom of the chart explains, “figures take into account the effect of the EU ETS.” This is an example of something which our Report specifically recommended should never be done:

24. [...] Above all, [the Government] must ensure that whenever it publishes graphs depicting historic UK emissions and plotting their projected progress in future years, this always shows historic and projected emissions from the UK only, and never incorporates, in the same line, estimated reductions funded abroad. (Paragraph 74)

The issue of where emissions reductions take place is, of course, quite aside from that as to whether the purchase of ETS allowances translates into actual emissions reductions, wherever they may take place. The aforementioned Defra press release explains that the stated difference (some 27MtCO₂) between actual UK emissions in 2005 and UK emissions “incl ETS” represents the net number of ETS allowances (27 million) that UK participants purchased to cover their emissions in 2005. We would argue, following the conclusions of our Report, that purchasing ETS allowances in Phase I, which most observers agree to have been over-allocated as a whole, does not necessarily mean funding emissions reductions.

We would thus like to ask:

3. **What is the Government’s response to our specific recommendation that it should never, when publishing graphs that depict historic and projected annual emissions within the UK, include in the same line the effects of estimated emissions reductions funded by the UK but taking place abroad?**
4. **Does the Government have—or will it develop—a code of practice governing the transparency with which it reports UK carbon and GHG emissions, especially covering how it reports the contributions of the EU ETS and other uses of international emissions trading?**
5. **Will the proposed Committee on Climate Change have the role of auditing Government emission figures for robustness and transparency?**

Aviation

On aviation, the Response contains the following interesting information (Recommendation 42, p 31) regarding the sectoral cap to be set for aviation within the EU ETS:

The Government would like to see a provision added to the Directive enabling the cap to be revised. This review would provide a mechanism to ensure that the environmental effectiveness of the scheme is maintained, particularly as more challenging targets are achieved through international negotiations. The date of revision would depend on the actual start date of the scheme and should be reviewed in context of the general review of the EU ETS.

6. Could the Government supply us with some more information on this proposal?

Streamlining of climate change regulations

We welcome the Government's detailed and informative response to our concerns as to the potential for certain UK firms to become subject to multiple trading regimes and other climate change instruments (Recommendation 35, pp 25-7). As we suggested, we may investigate these issues in further detail in a forthcoming inquiry into the Climate Change Levy, and may also decide to look further at the proposed Energy Performance Commitment. However, one point in the Government Response was new to us:

7. The Response refers to the "Climate Change Simplification Project". Could the Government provide us with some more details of this project?

Impacts on competitiveness

On managing the economic impacts of mitigation, we recommended that the Government should consult on whether and how the economy requires greater support and guidance in terms of R&D investment, skills training, and potentially trade agreements. The Government Response stops short of agreeing to such an overarching approach, but does say that the Government will carry out further research on the competitiveness implications of the EU ETS (Recommendation 15, pp 11-12).

8. Can the Government supply more details on the further research it has stated it will carry out on the competitiveness implications of the EU ETS, including any details on the nature and deadlines of any studies that are commissioned?

We may also follow up other these and other issues touched on in the Government Response in future inquiries.

We appreciate your appearing before the Committee at our session on June 4, and look forward to receiving your written reply in due course.

Tim Yeo MP
Chairman, Environmental Audit Committee

June 2007

Response from the Secretary of State to the Committee

Supplementary Memorandum from the Department for Environment, Food and Rural Affairs

Thank you for your letter to David Miliband of 13th June regarding the Government response to the Environmental Audit Committee's report on The EU Emissions Trading Scheme: Lessons for the Future. I have set out below the answers to your further questions.

1. What evidence does the Government have to show that the saving of 5.2MtCO₂ is caused by the EU ETS, and not merely coincidental with it?

The Government's response did not state that the 5.2MtCO₂ saving was caused by the EU; ETS; it simply explained that in 2005 the emissions from the UK installations covered by the EU ETS were 5.2MtCO₂ lower than the estimate for 2003. We have used the comparison between 2003 and 2005 emissions because this was the most straightforward overall comparison of data available at the time. Since Government submitted its response to the EAC report, 2006 EU ETS emissions data has been checked and published. The comparison between 2003, 2005 and 2006 shows the following picture for emissions (figures in MtCO₂), and in terms of the allowances issued by the UK. Where emissions are greater than the quantity of allowances issued, operators will have been obliged to buy additional allowances from other Member States in order to cover their shortfall. The impact of the UK's EU ETS allocation decisions on carbon concentrations in the atmosphere is therefore the comparison between our estimate of what would have happened under a business as usual scenario, and the allocations.

	2003 emissions	2005 emissions	2005 allocation	2006 emissions	2006 allocation
	247.5 MtCO ₂	242.3 MtCO ₂	245.4 MtCO ₂	251.1 MtCO ₂	245.4 MtCO ₂
Compared to 2003 emissions		-5.2 MtCO ₂	-2.1 MtCO ₂	+3.6 MtCO ₂	-2.1 MtCO ₂
Project Business as Usual emissions		267.3 MtCO ₂		267.3 MtCO ₂	
Saving against Business as usual			21.67 MtCO ₂		21.67 MtCO ₂ (=5.9MtC)

It is important to distinguish between figures expressed in terms of CO₂ and those expressed in terms of carbon. A tonne of carbon is equivalent to 3²/₃ tonnes of MtCO₂. The figure of 4.6 million tonnes of carbon a year (not MtCO₂ as printed in your letter) therefore equates to 16.9m tonnes of CO₂. It represents a Treasury estimate of phase 1 EU ETS implementation in the UK on greenhouse gas emissions to the atmosphere. The Government's current estimate of the impact is, as shown, 5.9 MtC a year (21.67MtCO₂). This is an estimate of a real impact on greenhouse gas concentrations in the atmosphere, not (as suggested in the Committee's report) 'entirely notional'.

Defra will be producing further analysis of the 2006 emissions data in due course.

2. Why is the 4.6MtCO₂ figure not included within calculations of the contributions made by policy measures under the UK Climate Change Programme towards the 2010 target? What precisely does it mean to say that it does not apply to the year 2010; especially when, for instance the Fuel Duty Escalator is still included in these calculations, despite the fact it was abolished in 1999?

There are two different issues here, the 2010 target and the impact of the EU ETS during Phase 1 (2005-2007). The 2010 target relates to UK emissions in 2010. It is also important, however, to ensure that our emissions in the years leading up to that target are reduced, so as to ensure that the UK's impact on greenhouse gas concentrations in the atmosphere is *reduced*. The UK's cap for phase 1 of the EU ETS therefore has a real and valuable impact on emissions in 2006, 2006, and 2007 (estimated at 21.67MtCO₂ a year), and therefore on concentrations of greenhouse gases in the atmosphere. It will not have an impact on our emissions of greenhouse gases in 2010; but it will have had an impact on our contribution to existing *concentrations of greenhouse* gases in 2010 and beyond.

The UK's cap for Phase II of the EU ETS (2008-2012) is the figure which will have an impact on emissions in 2010; that is why it is shown in the Climate Change Programme and in the Energy White Paper as contributing towards the 2010 target. The reason for the fuel duty escalator being shown to have a continuing impact emissions is that the level of fuel duty achieved by the escalator is expected to remain in place, and therefore to have a real influence on emissions in 2010.

3. What is the Government's response to our specific recommendation that it should never, when publishing graphs that depict historic and projected annual emissions within the UK, include in the same line and effects of estimated emission reductions funded by the UK but taking place abroad?

The Government does not agree with this specific recommendation of the Committee. This is because emission reductions occurring abroad may, by international agreement and subject to agreed rules, count towards the UK's emissions reduction commitments under the Kyoto Protocol: and because in reality they are funded by, and in effect caused

by, UK operators subject to the EU ETS. Furthermore the net UK carbon account which will be compared with the budgets established for successive five year periods will, we anticipate under the provisions of the draft Climate Change Bill, include credits for emissions reductions outside the UK. The Government may therefore wish to publish graphs that include both types of emissions reduction. As we indicated in the government response to the Environmental Audit Committee, in the Government's view the most informative combination of data is to show:

- i) total emissions, and removals by sinks, within the UK
- ii) total emissions and reductions, including those funded by the UK's participation in emissions trading but taking place abroad, but excluding reductions taking place in the UK but funded from emissions trading participants abroad.

The government will continue to publish data showing total emissions and projections of annual emissions within the UK. This data will be presented in a way that does not include the impact of emissions trading. Additional data, showing the impact of emissions trading, will also be presented. In this way it will be clear that emissions reductions are occurring in the UK, and what emissions trading is achieving elsewhere.

4. Does the government have—or will it develop—a code of practice concerning the transparency with which it reports UK carbon and GHG emissions, especially covering how it reports the contributions of the EU ETS and other uses of international emissions trading?

The UK greenhouse gas emissions inventory follows internationally agreed guidelines which require transparency in the way the estimates are made. The estimates are subject to quality assurance and quality control procedures, are reviewed annually, and the underlying data achieved. Information on the holding and transfer of emissions credits will be available in the UK National Inventory Report from 2008 onwards. This information will make it possible to identify credits transferred from overseas that may be used to meet Domestic or International emissions reductions targets.

Similarly the EU ETS data is drawn from the national registry covered by the EU Registry Regulations which cover both form the content of data.

The overall emissions figures are National Statistics, and are produced and published following the National Statistics Code of Practice and its associated set of Protocols. The estimates are subject to quality control procedures, are reviewed annually, and the underlying data archived. The Government does not therefore see the need for a new code of practice in addition to the National Statistics Code and the international agreed procedures.

5. Will the proposed Committee on Climate Change have the role of auditing Government emissions figures for robustness and transparency?

It is vital that the Committee retains the ability to scrutinise the work it receives, and challenge as necessary. We intend the Committee to be an ‘intelligent customer’, rather than a passive recipient of emissions figures (among other data). The Committee will, of course be able to view the results of the Government modelling (e.g. projections etc) in the light of other information available to the Committee and draw its own conclusions regarding robustness and transparency.

We would see the role of the Committee as availing itself of these projections while at the same, its £2m approximate annual budget will allow it to commission any further analysis from independent sources in order that it can have different inputs. This will ensure that it can give an independent view. There is also no reasons why the Committee could not publish its own advice which in essence, would add another layer of transparency to the process.

6. (Aviation) Could the Government supply us with some more information on this proposal?

Negotiations are continued in the Council and in the European Parliament. The German Presidency presented a Progress Report on the proposal at Environment Council on 28 June 2007. This updated the Council on the status of the proposal, highlighting that the majority of the design details, including geographical scope, starting date and emissions cap, require further work before agreement can be reached. The Portuguese Presidency is intending to reach a Council Common Position at Environment Council in December 2007. The European Parliament has also held an initial discussion of the proposal in the committee on Environment, Public Health and Food Safety, with committee and plenary votes scheduled for Autumn 2007.

7. The Response refers to the “Climate Change Simplification Project”. Could the Government provide us with some more details of this project?

A scoping note for the simplifications project is attached²⁸. The project is being carried out by the Economics Central Analytical Directorate in Defra, and is expected to report to Ministers in the autumn.

8. Can the Government supply more details on the further research it has stated it will carry out on the competitiveness implications of the EU ETS, including any details on the nature and deadlines of any studies that are commissioned?

The Government has provided funding for a project carried out by the Climate Strategies grouping of researchers, looking at the competitiveness implications of the EU ETS. The study is entitled ‘*Differentiation and dynamics of EU ETS competitiveness impacts*’. The study is intended to provide robust and objective

²⁸ http://www.parliament.uk/parliamentary_committees/environmental_audit_committee/eac_EU_ETS_Gov_response.cfm

evidence on competitiveness for the Commission and Member States during the review of the EU ETS directive. It explores the competitiveness implications of different levels of free allocations at both the intra EU level and with non-EU countries. The study also uses UK data to investigate the impacts at both sectoral and sub-sectoral levels.

An interim report was received at the end of March 2007 and is now published on the Climate Strategies website. The project is expected to be completed in mid-September and will also be published on the Climate Strategies website.

http://www.climate-strategies.org/item_list.php?item=document&id=76#76

The Government has also commissioned Oxford Economics to undertake a study looking at the impacts of various carbon prices on the EU economy. The study will attempt to estimate the short-run transition costs, including the impact of carbon prices on leakage (i.e., output that relocates to countries that do not impose carbon constraints).

The Study is still in progress and is anticipated to finish in July. The intention is to publish the report in the summer of 2007.

I hope the Committee finds this clarification of our earlier response helpful.

Rt Hon Hilary Benn MP

July 2007

Formal minutes

Tuesday 16 October 2007

Members present

Mr Tim Yeo, in the Chair

Mr Martin Caton
Colin Challen
Mark Lazarowicz
Mr Graham Stuart

Jo Swinson
Dr Desmond Turner
Joan Walley

The EU Emissions Trading Scheme

The Committee considered this matter.

Draft Report (*Emissions Trading: Government Response to the Committee's Second Report of Session 2006-07 on the EU ETS*), proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 44 read and agreed to.

The Government's response to the Second Report from the Committee was appended to the Report.

The correspondence between the Committee and the Department for Environment, Food and Rural Affairs regarding the Government's response to the Second Report from the Committee was appended to the Report.

Resolved, That the Report be the Eighth Report of the Committee to the House.

Ordered, That the Chairman make the Report to the House.

[Adjourned till Tuesday 23 October 2007 at 10am]

Past reports from the Environmental Audit Committee since 1997

2006-07 Session

First	The UN Millennium Ecosystem Assessment, HC 77
Second	The EU Emissions Trading Scheme: Lessons for the Future, HC 70
Third	Regulatory Impact Assessments and Policy Appraisal, HC 353
Fourth	Pre-Budget 2006 and the Stern Review, HC 227
Fifth	Trade, Development and Environment: The Role of FCO, HC 289
Sixth	Voluntary Carbon Offset Market, HC 331
Seventh	Beyond Stern: From the Climate Change Programme Review to the Draft Climate Change Bill, HC 460

2005-06 Session

First	Greening Government: the 2004 Sustainable Development in Government Report, HC 698
Second	Sustainable Timber, HC 607
Third	Sustainable Procurement: the Way Forward, HC 740
Fourth	Pre-Budget 2005: Tax, economic analysis, and climate change, HC 882
Fifth	Sustainable Housing: A follow-up report, HC 779
Sixth	Keeping the lights on: Nuclear, Renewables, and Climate Change, HC 584
Seventh	Sustainable Development Reporting by Government Departments, HC 1322
Eighth	Proposals for a draft Marine Bill, HC 1323
Ninth	Reducing Carbon Emissions from Transport, H C981
Tenth	Trade, Development and Environment: The Role of DFID, HC 1014
Eleventh	Outflanked: The World Trade Organisation, International Trade and Sustainable Development, HC 1455
Twelfth	Transport Emissions: Government Response to the Committee's Ninth Report of Session 2005-06 on Reducing Carbon Emissions from Transport, HC 1718

2004-05 Session

First	Housing: Building a Sustainable Future, HC 135
Second	Corporate Environmental Crime, HC 136
Third	World Summit on Sustainable Development 2002: A UK Progress Report, HC 381
Fourth	The International Challenge of Climate Change: UK Leadership in the G8 and EU, HC 105 (<i>Reply Cm6617</i>)
Fifth	Environmental Education: Follow-up to Learning the Sustainability Lesson, HC84 (<i>Reply Cm6594</i>)
Sixth	Sustainable Public Procurement , HC 266
Seventh	Pre-Budget 04 and Budget 05, HC 261 (<i>Reply HC 528</i>)

2003-04 Session

First	Annual Report 2003, HC 214
Second	GM Foods – Evaluating the Farm Scale Trials, HC 90
Third	Pre-Budget Report 2003: Aviation follow-up, HC 233
Fourth	Water: The Periodic Review 2004 and the Environmental Programme, HC 416 (<i>Reply, HC 950</i>)
Fifth	GM Foods – Evaluating the Farm Scale Trials, HC 564
Sixth	Environmental Crime and the Courts, HC 126 (<i>Reply, HC 1232</i>)

Seventh	Aviation: Sustainability and the Government Response, HC 623 (<i>reply, HC1063</i>)
Eighth	Greening Government 2004, HC 881 (<i>Reply, HC 1259</i>)
Ninth	Fly-tipping, Fly-posting, Litter, Graffiti and Noise, HC 445 (<i>Reply, HC 1232</i>)
Tenth	Budget 2004 and Energy, HC 490 (<i>Reply, HC 1183</i>)
Eleventh	Aviation: Sustainability and the Government's second response, HC1063
Twelfth	Environmental Crime: Wildlife Crime, HC 605 (<i>Reply, HC 438</i>)
Thirteenth	Sustainable Development : the UK Strategy, HC 624

2002-03 Session

First	Pesticides: The Voluntary Initiative, HC100 (<i>Reply, HC 443</i>)
Second	Johannesburg and Back: The World Summit on Sustainable Development–Committee delegation report on proceedings, HC 169
Third	Annual Report, HC 262
Fourth	Pre-Budget 2002, HC 167 (<i>Reply, HC 688</i>)
Fifth	Waste – An Audit, HC 99 (<i>Reply, HC 1081</i>)
Sixth	Buying Time for Forests: Timber Trade and Public Procurement - The Government Response, HC 909
Seventh	Export Credits Guarantee Department and Sustainable Development, HC 689 (<i>Reply, HC 1238</i>)
Eighth	Energy White Paper – Empowering Change?, HC 618
Ninth	Budget 2003 and Aviation, HC 672 (<i>Reply, Cm 6063</i>)
Tenth	Learning the Sustainability Lesson, HC 472 (<i>Reply, HC 1221</i>)
Eleventh	Sustainable Development Headline Indicators, HC 1080 (<i>Reply, HC 320</i>)
Twelfth	World Summit for Sustainable Development – From rhetoric to reality, HC 98 (<i>Reply, HC 232</i>)
Thirteenth	Greening Government 2003, HC 961 (<i>Reply, HC 489,2003-04</i>)

2001-02 Session

First	Departmental Responsibilities for Sustainable Development, HC 326 (<i>Reply, Cm 5519</i>)
Second	Pre-Budget Report 2001: <i>A New Agenda?</i> , HC 363 (<i>HC 1000</i>)
Third	UK Preparations for the World Summit on Sustainable Development, HC 616 (<i>Reply, Cm 5558</i>)
Fourth	Measuring the Quality of Life: The Sustainable Development Headline Indicators, HC 824 (<i>Reply, Cm 5650</i>)
Fifth	A Sustainable Energy Strategy? Renewables and the PIU Review, HC 582 (<i>Reply, HC 471</i>)
Sixth	Buying Time for Forests: <i>Timber Trade and Public Procurement</i> , HC 792-I , (<i>Reply, HC 909, Session 2002-03</i>)

2000-01 Session

First	Environmental Audit: <i>the first Parliament</i> , HC 67 (<i>Reply, Cm 5098</i>)
Second	The Pre-Budget Report 2000: <i>fuelling the debate</i> , HC 71 (<i>Reply HC 216, Session 2001-02</i>)

1999-2000 Session

First	EU Policy and the Environment: An Agenda for the Helsinki Summit, HC 44 (<i>Reply, HC 68</i>)
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Second	World Trade and Sustainable Development: An Agenda for the Seattle Summit, HC 45 (Including the Government response to the First Report 1998-99: Multilateral Agreement on Investment, HC 58) (<i>Reply, HC 69</i>)
Third	Comprehensive Spending Review: Government response and follow-up, HC 233 (<i>Reply, HC 70, Session 2000-01</i>)
Fourth	The Pre-Budget Report 1999: pesticides, aggregates and the Climate Change Levy, HC 76
Fifth	The Greening Government Initiative: first annual report from the Green Ministers Committee 1998/99, HC 341
Sixth	Budget 2000 and the Environment etc., HC 404
Seventh	Water Prices and the Environment, HC 597 (<i>Reply, HC 290, Session 2000-01</i>)

1998-99 Session

First	The Multilateral Agreement on Investment, HC 58 (<i>Reply, HC 45, Session 1999-2000</i>)
Second	Climate Change: Government response and follow-up, HC 88
Third	The Comprehensive Spending Review and Public Service Agreements, HC 92 (<i>Reply, HC 233, Session 1999-2000</i>)
Fourth	The Pre-Budget Report 1998, HC 93
Fifth	GMOs and the Environment: Coordination of Government Policy, HC 384 (<i>Reply Cm 4528</i>)
Sixth	The Greening Government Initiative 1999, HC 426
Seventh	Energy Efficiency, HC 159 (<i>Reply, HC 571, Session 2000-01</i>)
Eighth	The Budget 1999: Environmental Implications, HC 326

1997-98 Session

First	The Pre-Budget Report, HC 547 (<i>Reply, HC 985</i>)
Second	The Greening Government Initiative, HC 517 (<i>Reply, HC 426, Session 1998-99</i>)
Third	The Pre-Budget Report: Government response and follow-up, HC 985
Fourth	Climate Change: UK Emission Reduction Targets and Audit Arrangements, HC 899 (<i>Reply, HC 88, Session 1998-99</i>)