

Oral evidence

Taken before the Environmental Audit Committee

On Tuesday 17 October 2006

Members present:

Mr Tim Yeo, in the Chair

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Mr David Chaytor
Tim Farron
Mr Nick Hurd

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Memorandum submitted by the Department for Environment, Food and Rural Affairs

INTRODUCTION

1. The United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties in Montreal in December 2005 launched parallel discussions on further action under the UNFCCC and the Kyoto Protocol.

2. The aim of the *Convention Dialogue* (which includes all 189 countries which have ratified the UNFCCC) is to allow all Parties to the Convention to exchange experiences and analyse strategic approaches for long-term cooperative action to address climate change that includes, *inter alia*, the following areas:

- (a) Advancing development goals in a sustainable way.
- (b) Addressing action on adaptation.
- (c) Realising the full potential of technology.
- (d) Realising the full potential of market-based opportunities.

The dialogue will take the form of an open and non-binding exchange of views, information and ideas in support of enhanced implementation of the Convention, and will not open any formal negotiations leading to new commitments.

3. The aim of the *Kyoto Protocol work stream* (which only included countries which have ratified the Protocol, so not the US or Australia) is to establish, as required by Article 3, paragraph 9 of the Kyoto Protocol a process for negotiations on further commitments for developed country (Annex I) Parties. These would apply after the first commitment period of the Kyoto Protocol which ends in 2012. Parties agreed that this process should be conducted in an open-ended ad hoc working group (AWG) and that the AWG would complete its work “as early as possible” and aim to ensure that the first and second commitment period should be consecutive, ie that there should be no gap between them.

The results of the Montreal Conference were widely welcomed by governments, NGOs and the press. Compared with the outcome of the UN climate conference in Buenos Aires in November 2004, it was clear that there was a major transformation in the political readiness of most major governments to address the sensitive question of what further action all countries need to take to tackle greenhouse gas emissions.

3. The key factor in securing the agreements was the political willingness of the developed country Kyoto Parties—most importantly Japan, Canada and the EU—to embark on the process of considering further targets for the post-2012 period under the Kyoto Protocol. That politically difficult step was made easier by the fact that the major developing economies were signalling their willingness to discuss in parallel (under the Convention Dialogue) how they could, with appropriate incentives and assistance, help strengthen the action they take to meet their (unquantified) responsibilities under the Climate Change Convention.

4. This successful outcome of the Montreal Conference has set in place a clear process for moving forward multilaterally during 2006 and beyond. Both processes provide a promising basis on which to build a new international consensus on how the world can take ambitious collective action to avoid dangerous climate change.

5. In respect to the further action discussions, there will also be a key role for more informal processes such as the Gleneagles Dialogue which could support and complement the multilateral process, by focusing on key areas of importance to both the G8 and other countries with significant energy needs including China, India, Brazil, South Africa and Mexico. For example progress could be made in these fora on developing

a better understanding of positive incentives for actions, including in relation to investment in technology and financing of adaptation. Discussions through such informal processes can provide useful lessons and ideas for taking action forward through the multilateral UN process among 180+ countries.

PROGRESS SO FAR

The first workshop of the Convention Dialogue and the first meeting of the AWG

6. The first workshop of the Convention Dialogue and the first AWG meeting formally kicked off the discussions on further action at the UNFCCC Subsidiary Bodies meeting in Bonn from 15–26 May 2006. What became clear in both processes was that Parties' expectations differed and that there is no collective vision yet on what we need to achieve, how all relevant issues could fit under the various tracks and when we need to secure an outcome. At one end of the spectrum was the position that the current framework is alright as it is: we should just continue the status quo and only adopt deeper reduction targets by Annex I countries under the Kyoto Protocol. At the other end was the position that we would need a completely new framework.

7. During the two-day *Convention Dialogue Workshop in May*, several hundred participants engaged in discussions and exchanged views on the following issues: advancing development goals in a sustainable way; addressing action on adaptation; and realizing the full potential of technology and market-based opportunities. They also addressed a range of cross-cutting issues, such as the improvement of the investment climate, the global scale of effort and positive incentives for developing countries.

8. This first workshop was successful in creating an atmosphere in which all Parties freely expressed their views on the four themes identified in the Montreal Decision and other cross-cutting issues. The discussion did, however, need more focus and it is essential therefore that the next workshops are more structured in order to ensure that there is progress through this Dialogue. The UK and EU are keen to take discussions further and make significant progress and are working closely and constructively with the Co-Chairs and other Parties to achieve this.

9. The workshop had no binding or negotiated outcome, although the co-facilitators produced a report which was published in August. Parties were also asked to submit views on the format and content of the next workshops in Nairobi.

10. *The first meeting of the AWG* set out to agree the forward work plan for future sessions. It concluded with a Chair's report agreed by the AWG. This report sets out an open flexible plan for future work, providing the EU and other Kyoto Protocol Parties with a sufficiently wide scope to undertake relevant further analysis. This will include drawing on inputs and work under way in other processes to inform consideration within the AWG of further commitments as well as a wide list of topics that might be looked at during future sessions of the AWG.

11. Although the Group of 77 accepted this outcome, they argued that the mandate for the AWG is clear and narrow and should only focus on the amendment of the list of quantified emission limitations by Annex I countries. Discussion of any other issue would, in their opinion, be unnecessary and would detract from the real issue. In the end they agreed to the report by the Chair but only on the basis that they did not recognise it as a binding document.

12. The Chair's report also outlined the format and substance of the second session of the AWG to be held in Nairobi at the COP12/MOP2. Parties agreed that the session should include an in-session workshop comprising a series of presentations that would focus on the scientific basis for determining further commitments by Annex I Parties, including stabilisation scenarios and the implications of these. Presentations might also cover emission trends for Annex I Parties and information about the mitigation potential of different policies and technologies in different national circumstances as well as the costs and benefits of these. There would also be further consideration of the work plan, in preparation for the two sessions planned for 2007.

Other further action discussion within the UNFCCC context

Papua New Guinea's proposal

13. Separately from the two further action tracks, Papua New Guinea, with Costa Rica, supported by the Coalition of Rainforest Nations, submitted a proposal to COP11 in Montreal, proposing to use reductions on emissions from deforestation below national baselines as a basis for voluntary participation, either in emissions trading or by some other means in climate change agreements. This could be viewed as a proposal on future action in one sector. The Montreal COP agreed that "reducing emissions from deforestation in developing countries" should be discussed in Bonn in May 2006 and to report back to COP12 in November 2006, after having at least one workshop in 2006.

14. The discussions in Bonn in May 2006 were about the relative importance to be given to methodological issues (such as monitoring and drivers causing deforestation which would be the basis for setting baselines) and to discussion of policy approaches, particularly whether or not reduced emissions

from deforestation should be eligible as a basis for participation in the Kyoto Mechanisms. The language to the conclusions needed careful drafting to reach agreement on coverage for a workshop to be held in Rome in late August 2006. Differences on participation in the mechanisms persisted at the Workshop with Brazil strongly opposed. Nevertheless the discussions were very useful on methodological issues, the causes of deforestation, and national experiences in addressing it, and Brazil made its own proposal based on the idea of a fund with voluntary contributions from developed countries from which payments would be made for reductions in deforestation below a historical baseline. A second workshop is likely in 2007 prior to a possible decision at COP13.

15. Despite positive proposals being made, reaching agreement is unlikely to be easy since it could be seen as a precedent for quantified agreements for developing countries, at the sectoral or national level, and might pre-empt significant resources that would otherwise become available for other projects under the CDM. Nevertheless, the issue has significant political momentum, does not attract opposition from fossil fuel interests and may well produce useful results, both in its own terms and as a possible catalyst for the main agreement.

16. Understanding on land-use, land-use change and forestry (LULUCF) issues, (including reduced emissions from deforestation) is facilitated by an informal dialogue recently chaired for the EU by the UK, and for the Umbrella Group countries by Canada. The dialogue brings together developing and developed countries outside the formal negotiations. The dialogue has met twice so far and is intended to ensure that the complexities of the LULUCF sector do not get in the way of future agreements.

Brazil's historic responsibility proposal

17. In 1997, in the context of the Kyoto Protocol negotiations, Brazil launched a proposal for the apportioning of emission reductions, the so-called "historical responsibility proposal" in which cumulative emissions from 1840 until today are used as the point of reference for defining the abatement targets for the countries taking part in the negotiations. The UK and Germany have assisted Brazil in further developing the technical merits of this proposal in the *ad hoc* group for the Modelling and Assessment of Contributions of Climate Change (Match).

18. Although this proposal does not relate to further action by Parties as such, it is relevant to the discussions on further action as it still being explored at the UNFCCC meetings and it may come back on the table as one of the apportioning proposals for the second commitment period of the Kyoto Protocol.

Processes outside the UNFCCC scope

19. There are two major developments that are not strictly within the negotiation framework of the Climate Change Convention that could have an impact on a final agreement and are therefore worth mentioning. These are the Gleneagles Dialogue and the Asia Pacific Partnership. A further development in the context of the EU/China Summit, has been the UK-led collaboration on use of Near Zero Emissions coal technology in China.

Gleneagles Dialogue

20. The Dialogue on Climate Change, Clean Energy and Sustainable Development, launched under the UK's Presidency of the G8 in 2005 has the remit to:

- (a) Address the strategic challenge of transforming our energy systems to create a secure and sustainable future.
- (b) Monitor the implementation of the Gleneagles Plan of Action and explore how we can build on that progress.
- (c) Share best practice.

21. The Dialogue allows continued, more informal, discussion of the issues around climate change and measures to tackle it, such as those agreed at Gleneagles. The Dialogue also helps to create the condition for more constructive negotiations within the UN framework.

22. The first formal report on progress will be to the 2008 Japanese G8 summit. This will include a report on how G8 countries have met their commitments under the Gleneagles Plan of Action which builds on existing work in order to increase the speed with which greenhouse gas emissions are reduced. The Gleneagles Plan of Action includes improvements to energy efficiency in appliances and buildings, cleaner vehicles, aviation, work on developing cleaner fuels, particularly reduced emissions from coal, renewable energy and promoting research and development and the financing of future projects.

23. The G8 has asked the International Energy Agency (IEA) to take forward a work programme on policies and measures for accelerating development and deployment of low carbon energy technologies. The IEA published its report on Energy Technology Perspectives in June 2006.

24. The G8 has further asked the World Bank and regional development banks to develop a new Investment Framework that addresses the obstacles currently limiting public and private investment in (a) energy for development, (b) clean energy technologies and (c) adaptation to climate change. The World Bank presented the first iteration of the Framework at the World Bank Spring Meetings in April 2006. A further progress report will be presented at the Annual Meeting in September 2006.

25. The Mexico Ministerial on 3–4 October 2006 will focus on three strands of work. The first two strands are the two pieces of work outlined above. The third strand will be provided by the Stern Review which should give a much more detailed evidence base for the economics of climate change and the actions to tackle it.

26. The Gleneagles Dialogue has created new momentum for the international discussions on climate change. It has also raised the issue to the level of heads of states and provided new impetus and direction to the work of the IEA and the multilateral development banks. It can usefully maintain a high level of ambition for their work towards creating a global investment framework that can address climate change. It is a process that can help to build political will amongst the key players and enable those players to engage in constructive dialogue away from the negotiating forum.

Asia Pacific Partnership

27. The Asia Pacific Partnership on Clean Development and Climate aims to “develop, deploy and transfer cleaner, more efficient technologies and to meet the national pollution reduction, energy security and climate change concerns” of the Partners. The Partnership is made up of six countries: Australia, US, China, India, Japan and South Korea (AP6), with the main drive coming from the US and Australia.

28. The communiqué of the inaugural meeting in January 2006 emphasises that the Partnership will be consistent with, and contribute to, existing efforts under the UN Framework Convention on Climate Change, and will complement, but not replace, the Kyoto Protocol. In contrast to the Kyoto approach with binding time-bound targets for emissions reductions, this new partnership takes a voluntary approach, bringing in businesses. The Vision Statement makes it clear that this is a non-binding compact, and that the focus is on reducing greenhouse gas intensities (ie the amount of greenhouse gases emitted per unit of economic growth), rather than reducing emissions in absolute terms.

Additional Action—Near Zero Emissions Coal Initiative

29. At the annual EU-China Summit during the UK Presidency of the EU (second half 2005) we initiated a collaboration on Near Zero Emissions Coal fired power generation using carbon capture and storage with the objective of developing and demonstrating the technology in China and the EU by 2020.

30. This is a significant initiative as it addresses the key challenge of the rapid growth in carbon dioxide emissions from coal fired electricity generation in countries such as China and represents active EU engagement on the issue of technology transfer in order to assist low carbon development of these emerging economies.

31. The UK is funding the first assessment phase of the Near Zero Emissions Coal initiative with £3.5 million with additional support being provided through the European Commission Sixth Framework Programme.

The Environmental Audit Committee invited comments on four specific questions. The UK Government’s response is given below

QUESTION 1

What is the likely outcome from the meetings in Nairobi in November? Will the Parties to the Protocol be able to maintain whatever momentum they possessed at Montreal in 2005?

32. While we need to be realistic about our expectations of the meeting in Nairobi, it will be an important one for a variety of reasons. The Kenyan host Minister Kibwana is keen to get results on issues that are of crucial relevance to Africa, such as adaptation, the financial mechanism and technology transfer. He also recognises that it is important that the COP gives clear guidance on how to take forward the further action processes.

33. Progress in the further action processes is closely linked to progress on the other issues. The negotiations on the five-year work plan for adaptation and the financial mechanisms, in particular the adaptation fund, were difficult in May in Bonn and did not result in a final outcome so negotiations will continue in Nairobi.

34. An additional factor for consideration in Nairobi will be the inclusion of another issue related to further action on the agenda, namely the review of the Kyoto Protocol (Article 9 KP). Annex I Parties have made it clear in their submissions to the UNFCCC Secretariat that they attach great importance to this review, as it will give the possibility to evaluate the Protocol where necessary and also to build upon it. The EU in its submission to the UNFCCC Secretariat stated that “on many issues, like the flexible mechanisms,

the handling of land use, land use change and forestry issues and the other methodological rules of the KP, there is already valuable experience for which the review under Article 9 provides an opportunity for evaluation and forward looking discussions” and “knowing the framework for the implementation and the rules would greatly facilitate further commitments”.

35. The main focus of the second AWG under Article 3.9 of the Kyoto Protocol, will be on the work plan of the two sessions planned for 2007. It is quite likely that there will be further negotiations on what exactly to discuss, as the G77 does not recognise the Chair’s report of the Bonn meeting as binding.

36. The second workshop of the Convention Dialogue will also take place in Nairobi. It is important that this has a clear focus on issues on which Parties would be interested in putting forward new proposals on further action. Although this Dialogue is not likely to lead to a formal decision to take action, it is clear that Parties have high expectations of the crucial final workshop at COP13 in 2007 in terms of setting the agenda for how we move forward on further action as a whole.

QUESTION 2

What is the likely shape of an agreement post 2012 which will (presumably) include at least all those currently signed up to the Protocol? To what extent will the current stance of the United States of America and other countries not signed up to the Protocol influence the discussions concerning any post-2012 framework?

37. The negotiations on further action have only just begun and the introduction to our response and the answer to question 1 will have made it clear that in the formal further action tracks Parties have mainly talked about process. As a consequence it is not yet possible to give a clear picture on the likely shape of an agreement post 2012. Based on public statements such as in UNFCCC it is however possible to identify some elements which Parties consider should form part of a possible agreement.

38. Before going into more detail on the elements of a possible agreement it is important to note that all Parties formally still subscribe to the key principles established by the existing UN Framework Convention: in particular that countries should act consistently with their responsibility for climate change as well as their capacity to do so, and that developed countries should take the lead, given their historical contribution to GHG emissions and the economic development they have enjoyed as a result. The Convention lays down a responsibility on all countries to act on mitigation of emissions and also adaptation to the impacts of climate change. For developed countries, the first steps were quantified emissions reductions, both in the Convention, and subsequently in the Kyoto Protocol. Developing country commitments are un-quantified and conditional upon financial assistance and support for technology transfer and adaptation from developed countries.

39. The submissions on the Article 3.9 process (March 2006) highlighted the following points of relevance to an agreement post 2012:

- China explicitly mentioned that no new commitments for Non-Annex I Parties shall be introduced other than those provided for in Article 4 of the Convention and Article 10 of the Kyoto Protocol.
- India and China stated that the emission limitation/reduction targets of Annex I Parties need to be higher. (Brazil stated the same in their submission on the Convention Dialogue).
- All Annex I Parties that issued a submission noted that they alone cannot solve the climate change problem and that consideration needs to be given to the contributions of others.
- Iceland, Japan and the Russian Federation specifically stated that there is a need for new Parties to take on quantitative emission reduction limitations.
- Some Parties mentioned that we have to consider the length of the commitment period. For example, Algeria and China stated that the length of the current commitment period (five year) is too short.
- A cross-section of Parties from Annex I and Non-Annex I mentioned that the flexible mechanisms (emissions trading, joint implementation and the clean development mechanism) have to remain and be improved and that technology transfer is key and needs to be addressed appropriately.
- Some of the Annex I Parties also referred to more specific issues. For example, Iceland and Norway mentioned that we should also consider incorporating new types of sinks and bunker fuels. Iceland and Canada also referred to alternative approaches, such as sectoral approaches and South Korea refers to encouraging unilateral CDM.

40. Annex I Parties have made the point quite strongly that they are not willing to move alone on further commitments without evidence that their actions will form part of a global effort to address climate change. At this stage no-one has stated what this exactly means. It is not clear whether they are suggesting that those parties who currently have no quantified emissions limitations need to take on this sort of commitment or whether they should take on the same level of effort without specifying that this has to be a Kyoto Protocol type of target. It is also unclear whether Annex I Parties will insist on a graduation process whereby Non-Annex I Parties move to Annex I based on some criteria of their relative development. What is also unclear

is who these Parties might be, although the possibilities put forward include the US, Australia, China, India and Brazil. The submission by Austria, on behalf of the European Community and its Member States, is perhaps one of the clearest in expressing this point. It states:

“In view of the global emission reductions required, global joint efforts are needed in the coming decades, in line with common but differentiated responsibilities and respective capabilities, *including significantly enhanced aggregate emission reduction efforts by all economically more advanced countries*. Developed countries should continue to take the lead in accordance with the Convention in the fight against climate change. Without prejudging new approaches for differentiation between Parties in a future fair and flexible framework, the EU looks forward to exploring with other Parties strategies for achieving necessary emission reductions”.

41. The submissions made by Brazil and South Africa on the Convention Dialogue gave some particularly clear signals about their positions. Brazil submitted that the Convention Dialogue should consider the establishment of a new arrangement, within the Convention, to provide positive incentives to developing country Parties to further contribute to the ultimate goal of the Convention. Such incentives should encompass the provision of new and additional financial resources and transfer of technology, as well as capacity building and enhancement of endogenous capacities, to be channeled to government programmes containing measures that contribute to reduce emissions in all relevant sectors and thus contribute to the ultimate goal of the Convention. Brazil believes that the Convention track is intended to stimulate voluntary action solely in developing countries, and thus should not be an option for Annex I Parties countries to meet their quantified GHG emission limitations, including reduction commitments under the Kyoto Protocol.

42. The language used by South Africa is broadly similar. It adds that the focus of the dialogue should be on concrete actions on both mitigation and adaptation, particularly for developing countries. At the first workshop in Bonn South Africa backed this up with concrete examples such as the implementation of sustainable development policies and measures (SD-PAMs) by developing countries with the assistance of appropriate funding from Annex I Parties. The SD-PAMs concept builds on, among others, the fact that many developing countries already take significant domestic action eg to improve the energy intensity of their economies and to promote the use of renewables. Through the introduction of a register the emission reduction potential of these actions could be made visible.

43. Although we should be careful about the way in which we interpret submissions for the first workshop of the Convention Dialogue, early indications are that some of the developing countries are using the forum as a way to bring new ideas to the table. It is clear that developing countries will require some form of incentives and assistance for further action. There is a price ticket attached to this, which may be beyond the scope of the UNFCCC funds and financial mechanisms. We therefore need to consider processes outside of the UNFCCC such as the need for supportive national and international global investment frameworks to enable low carbon growth and resilience to the impacts of climate change. In this respect the work undertaken by the World Bank and the Regional Development Banks for a global investment framework for energy for development, low carbon energy and adaptation will have a crucial role to play. Other processes such as those relating to the World Trade Organisation may also influence the question of incentives for developing countries to embark on a low carbon path of development.

44. In terms of other key Kyoto Protocol non-ratifiers, the US submission on the Convention Dialogue and their interventions at the workshop did not reveal any significant change to a position that is largely based on alternative multilateral approaches with a heavy focus on technology investment rather than a Kyoto style cap and trade system. However, there is significant action by states and businesses. California—the world’s 7th largest economy—is pressing ahead with measures to reduce carbon emissions by 80% by 2050. A combination of regulation and market-based instruments is being used to drive low-carbon innovation and investment. Far from being seen as a potential threat to growth, initial evaluations suggest the measures may boost California’s growth. Meanwhile, in the North East, several US states are collaborating to establish a carbon emission trading system.

45. As the Kyoto Protocol and Convention processes on further action develop, the UK and EU will want to explore options for broadening participation in a framework of future commitments, which will accelerate progress towards avoiding dangerous climate change.

QUESTION 3

What should be the position of the UK Government and of the EU in the discussions? Is the UK Government and the other governments of the EU in a good position to show leadership?

Position of the UK and EU

46. Climate change threatens the security, prosperity and well being of every one of Europe’s citizens. Opinion surveys indicate consistently that this is a matter of deep concern to them. They will continue to expect effective action to prevent dangerous climate change by the EU.

47. The EU has already shown international leadership on climate change and should continue to do so. But the existing EU and international processes will not deliver the urgency of action needed to avoid dangerous climate change and meet the target set by the European Council to keep the global average temperature rise to below two degrees.

48. The international framework has to support the delivery of ambitious objectives. It cannot be envisaged as the sole means of achieving action, but if countries' commitments under a new framework do not adequately reflect the scale of the challenge, the firm signal needed to drive action by non-government actors will not be sent. Broadly, these (overlapping) objectives are:

- To enable global GHG emissions to peak and decline within the next one to two decades.
- To influence the choice of lower carbon technologies for the estimated \$17 trillion that will be invested in energy infrastructure globally between now and 2030 (source—IEA).
- To speed up the deployment of existing low carbon technologies in all countries and promotion of the research and development into new technologies. To achieve faster access to and uptake of the most efficient technologies in developing countries.
- To assist all countries, but poor and vulnerable countries in particular, in adapting to unavoidable climate change impacts.
- To mobilise the financial investment, both public and private sector, that will be needed to deliver these objectives (the World Bank and others have estimated that annual flows in the region of \$40 billion to \$100 billion could be required to ensure that energy investment in developing countries is lower carbon).

Emerging UK thinking

49. The UK has provided international leadership on tackling climate change and works within and alongside the EU to ensure it is driving action. The UK Government considers that to deliver on the objectives above, any international framework must achieve wide international acceptance and be:

- Realistic (relevant to countries with different national circumstances).
- Robust (capable of being adjusted in the light of experience).
- Durable (will not become irrelevant after a few years).
- Fair (all countries are making efforts under the Convention and Kyoto Protocol (as appropriate) commensurate with their common but differentiated responsibilities).

And, of course, any such framework needs to be focused on moving towards meeting the challenge of avoiding dangerous impacts from climate change.

50. There will be no single right answer on a future framework. Within the UN framework, Parties have argued for differentiated types of commitments suitable for countries' different stages of development and national circumstances (eg in relation to energy resources and climate) which could be combined with a set of mechanisms that incentivise and facilitate achievement of commitments. It would also be important to build on what we have already developed under the Kyoto Protocol; a wider and more effective range of targets, trading and project mechanisms which are all prerequisites for an international carbon market.

51. Many of the existing ideas for future frameworks pre-date the 2005 Montreal Conference tend to be rather theoretical rather than designed to deliver on the kind of objectives outlined above. We are now undertaking more internal work to develop a more comprehensive view including better quantification of the effort/costs involved as a basis for discussion on how that should be shared between countries. To that end Defra is undertaking and commissioning research and analysis on national circumstances and the implications of different frameworks for developed and key developing countries and on possible innovative mechanisms that could be elements of an expanded future framework that would reflect a more up-to-date perspective. The Stern Review on the economics of climate change, will also provide insights into international action and mechanisms that could incentivise action.

Emerging EU thinking

52. EU thinking is not yet fully developed but some key elements have started to emerge, in particular after the March 2005 European Council of Ministers welcomed the European Commission's communication "Winning the battle against global climate change" (February 2005). This publication concluded that "the EU's future climate change strategy should:

- (i) Strive at the widest possible cooperation by all countries.
- (ii) Include all important greenhouse gases, sectors and mitigation options.
- (iii) Drive technological innovation, employing an optimal mix of "push" and "pull" policies, in particular in the transport and energy sector.
- (iv) Promote the transfer of technologies to appropriate markets.
- (v) Provide for the continued use of market-based and flexible instruments.
- (vi) Support the adaptation to unavoidable climate change in all countries, particularly in the most vulnerable developing countries.

Public funding channelled *inter alia* through development banks needs to be used to leverage private sector funding towards climate-friendly investments, particularly in the low greenhouse gas emitting energy technologies.”

53. At the same March 2005 Council, Heads of Governments emphasised the EU’s determination to reinvigorate the international negotiations by:

- (a) Exploring options for a post-2012 arrangement in the context of the UN climate change process, ensuring the widest possible cooperation by all countries and their participation in an effective and appropriate international response.
- (b) Developing a medium and long-term EU strategy to combat climate change, consistent with the 2°C objective. In view of the global emission reduction required, global joint efforts are needed in coming decades, in line with the common but differentiated responsibilities and respective capabilities, including significant enhanced aggregate reduction efforts by all economically more advanced countries. Without prejudging new approaches for differentiation between parties in a future fair and flexible framework, the EU looks forward to exploring with other parties strategies for achieving necessary emission reductions and believes that, in this context, reduction pathways for the group of developed countries in the order of 15–30% by 2020, compared to the baseline envisaged in the Kyoto Protocol, and beyond, in the spirit of the conclusions of the Environment Council¹, should be considered.

EU Leadership

54. The EU has shown leadership in developing the type of mechanisms that are essential to deliver carbon reductions in the most cost effective way such as the EU Emissions Trading Scheme. It also has done this by identifying climate and energy as priorities for the next framework programme and in launching partnerships to work with China and India on low carbon technologies. The EU has been successful in demonstrating that action can be taken without harming the overall competitiveness of their economies.

55. Commentators contend that the world is looking at the EU to show leadership. Whether it can do this successfully is largely dependent on its credibility in respect of meeting its commitments. The EU is broadly on track to meet its Kyoto Protocol target.² To show further leadership it will be important to maintain this situation because it is the key element on which other Parties judge the EU.

September 2006

¹ The Environment Council also invited developed countries to consider reduction pathways in the order of 60–80% by 2050.

² Under the Kyoto Protocol, the EC and its Member States (then the EU-15) agreed to reduce greenhouse gas emissions by 8% below base year levels (largely 1990) during the first commitment period (2008–12). The enlarged EU-25 does not have a formal combined emissions reduction target under the Protocol. The report uses 2010, the mid-year of the commitment period, as an approximation for the commitment period. Based on planned policies and measures reported by Member States the EU-15 is projected to be 6.8% below 1990 levels by 2010 (ie 1.2% short of the target). Source: European Commission Report on Demonstrable Progress Under The Kyoto Protocol, 2005.

Witnesses: **Ian Pearson**, a Member of the House, Minister of State (Climate Change and the Environment), and **Ms Dagmar Droogsmma**, Team Leader on Future Action, Global Atmosphere Division, Department for Environment, Food and Rural Affairs, gave evidence.

Q1 Chairman: Mr Pearson, welcome. This is your first appearance before the Committee since you became Minister. Perhaps I may say at the outset that Colin Challen had hoped to be here but unfortunately he is in St Thomas’s Hospital having had an accident. We understand that it is not too serious, but it is certainly serious enough to keep him away from here today and tomorrow. To kick off with a general point, is it right that you have been in the job for five months?

Ian Pearson: That is right.

Q2 Chairman: What are your overall impressions? Do you believe that people in Britain, consumers and businesses, are sufficiently seized of the urgency of climate change?

Ian Pearson: Increasingly so, yes. Quite a lot of research has been commissioned to analyse people’s views. Overwhelmingly, people are aware of climate change; they regard it as an important issue. What

is less understood is how individuals can contribute to reducing their own carbon footprint. As a government that is trying to spread greater awareness of climate change but is also encouraging a change in behaviour we have a climate change communications initiative. David Miliband has been talking about moving towards one planet living. At the moment, we consume resources as if we had three planets. If everybody did the same thing it would be completely unsustainable. Therefore, to move towards one planet living and reduce the carbon footprint of government, business and citizens must be an important part of our agenda.

Q3 Chairman: Do you think that the science is becoming more worrying and the situation may be even more risky and urgent than we are currently assuming?

17 October 2006 Ian Pearson and Ms Dagmar Droogsmas

Ian Pearson: Some of the most recent scientific reports have been very worrying. There is no doubt that the overall message must be one of increasing urgency. This is an issue that we need to tackle. I do not believe there is any serious debate about the science of global warming and the fact that humankind is responsible for CO₂ emissions and the problem of climate change. The debate is about how fast this process is taking place and, therefore, how urgent the international response needs to be.

Q4 Chairman: Quite rightly and understandably, there has been a lot of emphasis on targets for cutting annual greenhouse gas emissions and the whole Kyoto process has focused upon that. Do you think there is a risk that that may now deflect attention away from the concentrations and build up of greenhouse gases in the atmosphere which are the trigger for dangerous and irreversible climate change, as opposed to any particular annual level of emissions? We have had so much stress on emissions that people may feel if we can cut them by 60% by 2050 we may have solved the problem. If all of that cut arises in the past five years clearly we have not solved the problem. Do you think it would be better if we paid a bit more attention to the level of concentration now and reminded people that we might be quite close to an irreversible tipping point?

Ian Pearson: I think we need to do both but certainly it is important to focus on the overall concentrations. It is the area under the curve that is important. You are right to say that we cannot be in a situation where we set a target for 45 to 50 years hence and then take action right at the end of it, because it is the cumulative CO₂ emissions that are the problem.

Q5 Chairman: We are all looking forward to the Stern review. Can you tell us when it will appear?

Ian Pearson: Shortly.

Q6 Chairman: Is that "shortly" in Treasury speak, which usually means later rather than sooner?

Ian Pearson: As far as I am aware, the intention is to publish its findings before the pre-Budget report.

Q7 Chairman: But not necessarily before Nairobi?

Ian Pearson: I do not have the exact date.

Q8 Joan Walley: Would you like it to be published before Nairobi?

Ian Pearson: Just as in Monterrey in Mexico Nick Stern turned up and gave a preview of his findings I am sure that those findings will also be available at Nairobi. What is clear, without pre-empting the publication of the report, is that the costs of not tackling climate change are far higher than those associated with tackling it. That is one of the key messages we all need to take away from the report.

Q9 Chairman: Before we get to the COP and MOP agenda, if as everyone seems to expect the report will be quite convincing on that point will it be followed by a further analysis of the Government's

own position? It seems to this Committee that a certain amount of low fruit is not being picked, for example in relation to energy efficiency and maybe road transport. Some straightforward things could be done to accelerate the use of up-to-date technology and so on. If there is a convincing analysis will there be a fairly urgent response from the Government?

Ian Pearson: We continue to keep under review the range of policy instruments that we have in the UK to tackle the domestic climate change agenda. As you know, we have set the target of reducing CO₂ emissions by at least 60% by the year 2050. We have stretched the UK target of a 20% reduction by 2010. The climate change programme that we published in March gets us to about 16.2%, so it does not achieve the target that we set ourselves. There are a number of reasons why we are still short of that at the moment. We have said that this is not the last word on the issue and we want to see what more we can do. If the Committee has good suggestions about low-hanging fruit, as you call it, I would certainly be very interested to hear them. We fully accept that as a government we need and want to do more for the future.

Chairman: I daresay that we will want to have an early look at Stern as soon as it comes out, so we may respond to that.

Q10 Mr Hurd: I apologise that my question is a little out of context, but I have to leave early. Given the difficulty of reducing emissions, I am sure you agree about the importance of enhancing our natural carbon sinks. In that context what support is the British Government giving to the idea of conservation credits for rain forests?

Ian Pearson: We are certainly attracted to the idea of conservation credits. I know that you raised this as an issue in the debate last Thursday. You will have seen from my reply that of other suggestions that have been made we think that perhaps this is the best way forward.

Q11 Mr Hurd: What are the difficulties associated with it?

Ian Pearson: As you are aware, this is a hugely complex and difficult area. There are a lot of methodological issues involved in this area, as I understand it. When one looks at the scale of deforestation and its carbon impact it is clear that it is an area where we need to do something. That is why conservation credits seem to us in the UK to be a potential way forward, just as approaches in other sectors are areas that we think need to be explored if we are to have a comprehensive range of tools to tackle carbon emissions.

Q12 Mr Hurd: Will we be actively promoting it, or is our support passive?

Ian Pearson: What I can say is that at the moment we are fully engaged in the debate and we see it as being the leading runner of a number of different possibilities. What we want is something that works.

Q13 Mr Chaytor: Can you tell us something about progress on the Gleneagles dialogue, specifically what happened in Mexico and how it is being taken forward?

Ian Pearson: The UK was well represented at Mexico. I was not there but David Miliband as Secretary of State, Malcolm Wicks as Energy Minister and Margaret Beckett as Foreign Secretary were there. The judgment we made was that my presence would be one air flight too many. What we did at Monterrey was to look seriously at the economics of climate change and reduction. Sir Nicholas Stern gave a report on that. We looked at the costs of introducing low-carbon energy technologies. There was a report from the International Energy Agency on its energy technology perspectives. If you have not read the document I would thoroughly recommend it to Members of the Committee because it is a serious analysis of the different technology options that are available. That would be a contribution to the continuing future debates that we need to have in this area. The third area looked at and discussed in Monterrey was the whole issue of the way in which international financial organisations can contribute to providing finance to achieve the transition that we need to see to low-carbon economies in developing countries. Delegates at Monterrey heard the World Bank's energy investment framework proposals. Again, that is a matter where the UK has been playing a leading role in pushing forward these proposals. I am pretty excited about the fact that if we can get an energy investment framework fund of something in the region of the \$20 billion that has been talked about to help developing countries introduce low-carbon energy solutions that will be a huge practical step forward.

Q14 Mr Chaytor: All of these three areas reflect the work programme of the dialogue, but do you think that the programme or the building of a general consensus is the most important part of it? When is the work programme going to be completed?

Ian Pearson: Certainly, I believe that the general process of consensus building is important, but the different elements of the work programme are also significant and the fact that practical actions are emerging from the dialogue process in terms of co-operation with countries like South Africa to do specific pieces of work will make a difference. As to the dialogue process, we will be reporting back as part of the Japanese presidency. I am also pleased that the Germans have agreed to host a meeting next year as part of their presidency, which is important. As I see it, the key things are to get some concrete, practical action taken to continue to build international consensus on the science and practical actions in terms of what needs to be done if we are to tackle this. I see the Gleneagles process as a very important adjunct to the UN process. It is a very positive space in which we can debate ideas and throw out suggestions about how we can move the whole issue forward.

Q15 Mr Chaytor: Is that not precisely what should be done through the UN convention process and dialogue and the ad hoc working group? What is Gleneagles going to produce that could not be dealt with in the two existing processes? Is it not to some extent a distraction from the two existing processes?

Ian Pearson: I do not believe that it is a distraction; it is complementary and helpful to the overall view and negotiation process. My understanding of negotiations is that very often you keep your position close to yourself. That is certainly my experience as a trade minister, and from talking to people that seems to be the case when it comes to negotiations on climate change. I think that to have a space where you can throw out ideas and you are not part of a negotiating machinery is very helpful. I believe that the Gleneagles dialogue is filling that important gap.

Q16 Mr Chaytor: What happens if the outcome of the work programme for the Gleneagles dialogue is largely at odds with the outcome of the ad hoc working group? Is there not a danger that we will have a series of irreconcilable conflicts?

Ian Pearson: I do not believe that it will be at odds.

Q17 Mr Chaytor: If it is not why do we need it?

Ian Pearson: I think we need it for the reasons I was trying to explain.

Q18 Mr Chaytor: To clarify it, surely if it is the case that the Gleneagles dialogue has something distinct to offer inevitably to some extent it will be at odds with the ad hoc working group. If it does not have anything distinct to offer why have it in the first place?

Ian Pearson: What is unique about the Gleneagles dialogue is that one has countries working together to analyse and share the problem and come up with solutions, rather than countries that negotiate on the basis of their own vested interests. The debates that are had through the Gleneagles dialogue are a different paradigm from the negotiations that take place under the formal UN procedures. That is why I say it is complementary and important, because if we can build consensus there I think we have a better chance of achieving a negotiated agreement through the UN framework.

Q19 Mr Chaytor: Will it continue beyond 2012?

Ian Pearson: I do not think that at the moment decisions have been made about that.

Q20 Mr Chaytor: You will have seen yesterday's *Independent* which ran a major story on emissions from flights of government ministers. Your department was listed in the league table of emissions. Is there not a danger that in the whole climate change negotiation industry we are contributing to an increase in emissions through the huge amount of international travel that is involved? What is the Government doing to offset

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the emissions resulting from the Gleneagles dialogue and attendance at the other UN processes?

Ian Pearson: Frankly, I think that to take figures for government's airline emissions and say that they are contributing to the problem is a cheap shot . . . We will not get an international agreement to tackle climate change by email or over the phone; that simply is not going to happen. The figures for 2005 were during our presidency of the G8 when we had lots of formal commitments to make, so we have to travel, and will continue to travel, just as we are going to Nairobi if we are to reach a successful international agreement on these issues. As a government we have been offsetting the carbon impact of all our official flights since last year and will continue to do so as we have a government carbon offsetting fund in which we will be investing those offsetting proceeds.

Q21 Tim Farron: Following along similar lines that David Chaytor has been pursuing, you mention in your preamble that people are not always clear about what they can do to tackle climate change, but I suggest there is also lack of clarity over the international response. Do you agree there is a risk that all the various meetings and initiatives, some of which we have referred to already, could blur the focus, bemuse the public and lead them to believe, rightly or wrongly, that politicians are not taking decisive action?

Ian Pearson: There is quite a complicated architecture when considering the series of meetings and fora and discussing climate change. Trying to explain that to this Committee, let alone the British public, is quite difficult. I am assured, however, that those who are at the coal face in terms of negotiating and attending meetings are pretty well aware of their respective roles and responsibilities. But I agree there is an issue of public confidence and that people in Britain want to see the Government taking a leadership role when it comes to climate change. They want to know that we are working as hard as we can to get an international agreement which will avoid dangerous climate change in future. We need to get our messages across as a government, recognising the complexities of decisions and negotiations but giving people the confidence that government is on their side and is pressing hard to tackle these problems.

Q22 Tim Farron: Is not part of that leadership selling what you are doing in a much clearer way on an international level so that people feel that what they are doing is being led and they are not just fighting against great international forces that are not moving?

Ian Pearson: We certainly need to be clear about how we communicate our international climate change policy. I do not know about you, but I think people understand that we are trying hard in this. It is a big problem and we are one of a large number of countries. There are some big countries such as the United States that are responsible for

a lot of carbon emissions and have not been part of Kyoto and do not show willingness at government level to take action for the future. I think people understand some of the difficulties, but I hope they appreciate that we are trying hard as a government.

Q23 Tim Farron: As a related question, is there also a danger in having too many meetings, initiatives and strands of discussion in the sense that the various departments have or have not the capacity adequately to handle the various international discussions and negotiations? Can you and your colleagues deal with the proliferation of strands that appear to have come out of this line of work?

Ian Pearson: As a government, yes, we can. I have always been one of those people who think that we can have too many meetings and what we want is action, but when it comes to climate change we need a lot of meetings if we are to get people to agree to tackle CO₂ emissions in the future. As I said to David Chaytor earlier, although this can become confusing it is important that we have different fora in which we can raise some of the issues that need to be raised if we are to have an overall international framework to tackle climate change emissions. I have perhaps more concern in terms of capacity when it comes to some of the developing countries. We are a relatively big government with a good level of resources when it comes to tackling these sorts of issues. Some of the smaller developing countries do not have that expertise, and that is why in the past in areas like trade policy we have funded capacity-building initiatives to try to ensure that the voice of developing countries is strongly felt.

Q24 Mark Pritchard: In the written ministerial statement on 11 October on the meeting in Mexico it was said that "urgent global action" was needed. You have rightly spoken this morning about leadership and the Government's need to lead on this important issue of climate change and related issues. You said that the Government needed to get across its message, with which I certainly agree. You spoke about working with international bodies but also alluded to the fact that we needed to act locally. In that regard, having said what I have said do you think there is any sound environmental reason why there should not be a climate change Bill in the Gracious Speech?

Ian Pearson: I am not going to be drawn into saying what is or is not in the Queen's Speech. What I did say to the House yesterday was that, as we said in the climate change programme and the energy review, we were considering the case for a carbon budget very carefully, but we should not be under any illusions. What is important here is that we take action. To legislate for a target is something that we are looking at as a government, but just passing a Bill does not mean that we are tackling the problem. What we need is an effective policy response and that is the matter on which we are focusing.

Q25 Mark Pritchard: To be helpful, would you be surprised or disappointed if such a Bill was not in the Queen's Speech?

Ian Pearson: I do not want to make a comment at this stage as to whether or not a climate change Bill is in the Queen's Speech. The matter on which we all need to focus is effective policy actions. Do we have the right suite of policy instruments to tackle climate change? We have the important goal of reducing CO₂ emissions by at least 60% by 2050, but there are other countries with similar goals that are not being met. We are one of the few countries on course to meeting our Kyoto targets because we are taking action. Simply setting targets without the means is a futile exercise.

Q26 Dr Turner: It is true that the reason why we are meeting our Kyoto targets is not because of any action that the Government has taken but because of the dash for gas as a result of the market. That is not, however, the question that I want to ask.

Ian Pearson: I disagree. Since you have said it let me say why I disagree with you. There has certainly been an increase in gas usage in the United Kingdom and that has helped to reduce CO₂ emissions. It is also the case that over the past couple of years because of high oil and gas prices power generators have been burning more coal and that has created problems in terms of rising CO₂ emissions. But it is not correct to say that government has not taken any action. It is estimated that if the Government had not taken action at this moment we would have been 15% higher in terms of greenhouse gas emissions than we were in 1990 as opposed to 15% lower as we are today, which is why we are meeting our Kyoto targets. That arises because of a range of government actions in relation to tax, spending and regulation.

Q27 Dr Turner: That is very good to hear. I want to ask a completely unfair question. The international negotiating industry on climate change has been going on with ever-increasing intensity and elaborateness for some years. Over the course of those years the levels of greenhouse gases in the atmosphere have been increasing at an even higher rate. When do you think we will reach a point when the process of negotiation will produce agreed international measures which will start seriously to reduce emissions? I know that that is a terribly unfair question, but that is really what we have to look for and at the moment we seem to be a long way from it?

Ian Pearson: First, greenhouse gas emissions are not going up everywhere. The UK is on course to achieving almost a doubling of its Kyoto targets.

Q28 Dr Turner: I am referring to global emissions.

Ian Pearson: There are other countries—not enough of them—that are on target to meet their Kyoto commitments. Phase 2 of the EU emissions trading scheme is designed in part to help other countries in the European Union to meet their Kyoto targets. One gets back to the point that it is

one thing to set a target and make it legally binding but quite another to achieve it. We are doing that in the United Kingdom. I do not know when it will be possible to reach an international agreement on what a post-2012 Kyoto framework might look like. I do know that it has to be a lot more ambitious than Kyoto. We will all have to agree collectively to go further. I know that it needs to include key emitting nations and that at the moment the United States is not on board. I also know that we have some difficult discussions with rapidly developing countries like China and India which are increasingly burning large amounts of fossil fuel. All this is taking time and will continue to do so, but I know that there is a sense of urgency here. We need to reach an international agreement as soon as possible. That is why we have been trying to build consensus through the G8 Gleneagles dialogue and we will be an active voice in Nairobi. You will not find any lack of political will when it comes to the stance of the UK on these issues.

Q29 Mr Caton: Can we look now at preparations for MOP and COP and what has happened since Montreal following what you have just said? I am looking first at what happened in Bonn. A lot of people who have contacted us were very disappointed at what they felt was a lack of progress there. How do you feel about it? Was enough done in Bonn to maintain whatever momentum we had from Montreal?

Ian Pearson: Progress was made in Bonn and it had pluses and minuses. My understanding of it—I was not at the meeting—is that on the positive side there was a sense in some of the conclusions that we could move on by looking at the wider framework issues, such as clean development mechanisms, trading approaches and different sectoral approaches. On the minus side, I think that at Bonn some of the disagreements that exist now emerged. Clearly, there is a view among a number of the developing countries that can be summarised, if I may be blunt, as, "Well, you are the rich countries. Just set targets and get on with it." Developed countries say that it is a bit more complicated than that. There is a need for a range of practical actions and just setting targets for the sake of it will not make a difference and we need other people on board like the United States. That disagreement between the G77 and developing countries was, I understand, apparent at Bonn. It is one of the matters that we have to deal with as part of the process of getting a long-term international agreement.

Q30 Mr Caton: Thinking more generally, can you point to positive developments over the past 12 months that lead you to believe that we will get successful and very useful negotiations at Nairobi?

Ian Pearson: We will have to see what comes out of Nairobi. In a minute I will say something about our objectives for Nairobi. As to positive developments, I think that when published the Stern review will be very influential. The energy

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technology perspectives report at the IEA is an important piece of work and the proposals that are emerging in terms of the World Bank and the setting up of an energy investment fund are positive. All of those I point out as giving signs that the science is accepted and we know some of the costs involved, and we have some of the mechanisms to provide solutions. I believe that some of the building blocks are there in a way that they probably were not 12 months ago.

Q31 Mr Caton: Looking at the flip side of the coin, is there anything that has happened over the past 12 months that you believe may have a negative impact on Nairobi?

Ian Pearson: I do not think there is anything I want to point to that I think would be particularly negative. The past 12 months have just confirmed the science. Almost every day we see more scientific reports to indicate that the situation on global warming is more alarming than we first thought. Even in the United States there is recognition that global warming is an issue and there is a need to take action. I do not believe that there have been any particular negative developments over the past 12 months, but clearly there are huge difficulties in trying to get 189 countries to agree to anything.

Q32 Mr Caton: Partly for reasons that you suggested in earlier answers, a lot of people look to the UK and the EU for leadership and, therefore, as a *quid pro quo* we take responsibility if we do not get new progress at Nairobi. Do you believe there has been enough progress in the UK and EU over the past year that will prove particularly beneficial in the outcome of Nairobi?

Ian Pearson: There has certainly been progress in the UK with regard to our domestic climate change programme launched in March. I think that the energy review has been helpful. People can see that we are taking a range of actions to reduce CO₂ emissions and they can also see from phase 2 of the EU emissions trading scheme that Europe is making further progress, using market-based mechanisms to tackle CO₂ emissions. Europe has also put out for discussion that it may want to reduce greenhouse gas emissions by 15 to 30% by 2020 and by 60 to 80% by 2050. I think that is a helpful way to move forward the debate. I believe that in the UK and Europe we are showing leadership here.

Q33 Mr Caton: We are certainly doing very well against the Kyoto standards, but there is evidence of some regression in carbon emissions in the UK and slower progress than some expected across the EU. Do you think that affects our integrity as climate change leaders at all?

Ian Pearson: I think that when you look at the figures you will find we are well on course to meeting our Kyoto targets. It is true that CO₂ emissions in the UK have gone up a little in recent years, largely as a result of high oil and gas prices and so more coal is being burnt. But when one looks at the energy review and the other

programmes that we have in place the UK is on target to reduce CO₂ emissions from 1990 levels by something like 16.2%. We will need to go further, but I do not think that anybody internationally seriously doubts the UK's leading international role here. I do not think you can point to another country that has done more when it comes to tackling global warming.

Q34 Mr Caton: To finish up with a bread-and-butter issue, some NGOs have raised with us their concerns about whether the Kenyan Government can administer a conference like this. Linked to that, they have raised concerns about the timetabling. It seems to be a much stricter UN day as compared with previous negotiations of this kind which end up with long and arduous meetings but with real progress being made in those extra hours.

Ian Pearson: I have confidence in the ability of the Kenyans to organise an effective conference. At the moment the timetable might suggest a finishing time of 6 pm. I would not be surprised if after a few days negotiators went well into the night to discuss some of these issues. I think it is very helpful that the conference is taking place in Nairobi. Part of the way these things work is that there is a system of rotation. It was always going to be held in Africa. Clearly, climate change is a huge issue when it comes to Africa. It is right that we hold it there. Certainly, there will be a strong focus on adaptation in Nairobi. That is today one of the most pressing issues facing countries in sub-Saharan Africa. They can rightly say, "We did not create this problem but we know that climate change is already there and will affect our countries. We need to adapt and discuss how you help us with that and pay for some of the costs of what you have done in pumping CO₂ into the atmosphere as a result of your industrialisation." It is right that that is a subject of debate at Nairobi.

Q35 Mark Pritchard: Referring to CO₂ emissions, I meet a lot of people who want to have electric cars or put biofuels into their cars but there is very little supply of that. Do you have any comments with regard to oil refiners and petrol producers at the point of sale who perhaps are not meeting a demand that is there because it is too costly to refine biofuels products and get them to market and therefore there is a missed opportunity, as suggested earlier? As we speak this morning, there are people out there who would like to fill their cars with biofuels as they do in Brazil and other parts of the world but cannot do so because the big oil giants here do not have any incentive or are not regulated to do so. What will the Government do to encourage, induce or tell them to get biofuels, electric pumps and a whole lot of alternative renewables to the forecourt and match their rhetoric and large broadsheet advertising showing how green they are with the reality on the ground from the point of view of the average driver?

Ian Pearson: As you know, there is a range of different technologies potentially available which can bring about greener motoring from electric

cars, hybrids to cleaner fuels and other areas as well. Dealing specifically with biofuels, you will know that the Government is introducing a renewable transport fuels obligation which will be 5% in 2010. We said in the energy review that we aimed to go further after that date. That is already stimulating some strong growth in the biofuels market, admittedly from very low base levels, but we have started to see major capital investment projects coming forward in the UK. I have no doubt that that will continue as the RTFO comes in over the next few years. I believe that we will see a growth in biofuels as a result of this obligation. We are behind other countries. You mentioned Brazil. Clearly, we do not have the natural advantages of Brazil or other countries.

Q36 Mark Pritchard: When you say “advantages” what do you mean?

Ian Pearson: Brazil has enormous resources in terms of climate and land to enable the efficient production of sugar cane which is the main source of biofuel production in that country. We do not have those advantages, though we are seeing biofuels being produced in the United Kingdom from UK sugar beet and also from waste oils. This is an area where we have a strong interest as a government. We are doing things through the RTFO, and I am sure there is more that we can do in the future, because I know that transport emissions are an area with which this Committee has been concerned. As a government we are certainly concerned about that.

Q37 Joan Walley: I want to concentrate on the preparations for Nairobi and the step-by-step things that the UK leadership can do to get us where we need to be. Following on from the questions Mr Caton asked earlier, it seems to me that the three strands of what is happening at Nairobi are: the continuing long-term co-operative work; the first stage of the review of the Kyoto Protocol; and the work on the further annex. Of those three different aspects, how important do you regard the need to ensure the continuing co-operation between those countries that have not necessarily signed the Kyoto Protocol? Is it just a question of keeping them on board for political reasons, or is there a likelihood that that could diverge from the two other aspects of the agenda at Nairobi?

Ian Pearson: I think there are very strong reasons to keep the non-Annex 1 countries on board in the discussions, not least because some of them are major emitters of greenhouse gases. If we are to achieve our goal of a long-term international agreement that is robust, durable and fair to all countries we must have some of those key emitters on board. We will do that only if we continue to make sure that they are as involved as possible in the convention dialogue.

Q38 Joan Walley: Is that aimed primarily at the US?

Ian Pearson: I certainly have the US in mind because it is the largest emitter of greenhouse gases in the world today. It is difficult to conceive of an adequate response to the problems of global warming that does not involve the United States taking action.

Q39 Joan Walley: Returning to the review of the Kyoto Protocol, do you think that it will start smoothly in Nairobi? Do you foresee any early problems being flagged up?

Ian Pearson: I am aware that some of the G77 countries ask why a review is necessary because Kyoto is working perfectly well. Why do we not just make further commitments post-Kyoto? Maybe it will not run completely smoothly, but what we need to do is have the debate about what the framework post-2012 looks like and what new policy actions we need to take. For instance, earlier we discussed deforestation. There are other sectoral approaches. Aviation is a huge gap in terms of what needs to be done if we are to have an effective global policy to reduce greenhouse gas emissions. As you know, it was not part of Kyoto, but I believe that it must be part of what we do post-Kyoto. We need to have those discussions.

Q40 Joan Walley: Presumably, you have the added problem of front pages of the national media criticising ministers for making journeys by air when they are attending the very meetings to try to get this flagged up?

Ian Pearson: We have to live with that. I do not think that the article in the *Independent* was the fairest one I had ever seen. We will not get international agreement by email. Maybe the *Independent* has a better way of doing this, but I think that to get round a table and meet people has to be the way forward and we need to continue to do that.

Q41 Joan Walley: How long do you expect the preliminary negotiations as to what may happen post-2012 to take? Do you think that you will complete it at Nairobi? Will it be part of another ongoing series of talks?

Ian Pearson: I would love to say I feel confident that everybody is going to Nairobi with the expectation that there will be a long-term international agreement, but I do not think that is the case. What we can realistically expect from Nairobi is to advance some of the discussions and shared understanding so that hopefully we agree an adaptation work programme and fund which will be an important issue for developing countries. We will need to discuss the distribution of the clean development mechanism, which will be a major topic at Nairobi, and the whole issue of technology transfer. Earlier I mentioned the need for low-cost carbon solutions in developing countries. More will need to be discussed in Nairobi in relation to that, but I do not yet sense that there is an international consensus on new targets at Nairobi.

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Q42 Joan Walley: There is a contradiction in the sense that in relation to manufacturing the more we can achieve in the UK or perhaps Europe to reduce emissions there is a danger that much of that will be displaced to India or China in advance of any of the new clean mechanisms having been adopted as a means of manufacturing there. Effectively, we will be keeping our side of the bargain but that manufacturing is being transferred to other countries where global emissions are going sky high until we have the new mechanism in place. How do you think we can ensure that we have that kind of commitment from industry, perhaps linking it with the WTO as well, in the core of the new negotiations that need to be part of this ongoing annex and further negotiations post-2012?

Ian Pearson: I fully understand the concerns here. We cannot just focus on what are sometimes called end-of-pipe solutions. Just closing down a UK manufacturing plant because we impose onerous regulations on CO₂ emissions and seeing that same activity transferred elsewhere where there are no such regulations does not do the world any good. Clearly, we need to make sure that we are not in a position where, for instance, ceramics companies in the Stoke area transfer production to China which uses less energy efficient and more polluting technologies and then claim CDM credits for it. That does not seem to me to be a sensible way to do things. One of the benefits of the EU emissions trading scheme has been that it enables the least cost solution to reduce CO₂ emissions to take place within a European context. I think that that has been very beneficial. I am proud that the UK was the world's first country to introduce an emissions trading scheme and was the lead architect of the EU ETS. I see those trading mechanisms as playing a part in the future. One of the debates that I believe we need to have is how we can expand those trading mechanisms and how the EU ETS can link in to trading schemes in other countries in future, how it links in with the clean development mechanism and what we need to do with regard to that post-2012 because we will need to do more in that area.

Q43 Joan Walley: Are you putting that on the table in respect of Annex 1 discussions at Nairobi?

Ian Pearson: I am not sure whether discussions will go in that particular direction. A lot of the focus will be on the adaptation work programme and fund. I am sure that there will be a big discussion on technology and the fact that at the moment Africa hardly benefits from the CDM. Some of that is to do with the fact that there are not major CO₂ emissions in a lot of countries in Africa. The exception are South Africa and one or two other countries. The CDM has been used in big projects in China and India and African countries think, rightly, that it is not necessarily fair to them or helping them. We need to find a way to address that issue.

Q44 Dr Turner: How optimistic are you about progress on the Kyoto Protocol in the ad hoc working group at Nairobi? Do you know what sorts of things are on the agenda, and how much resistance do you expect from the G77?

Ian Pearson: I believe that at Nairobi there will be a big focus on adaptation overall. There is certainly a strong feeling on the part of developing countries that they should not be expected to make commitments and sign up to targets, but overall I believe there is a recognition that sooner or later nations together will have to tackle this problem. How far we get at Nairobi with some of these discussions on whatever track, whether it is the convention dialogue or the ad hoc working group, we will have to see. I do not have big expectations, but I believe that we will continue to have a dialogue and build a consensus. The more people who are exposed to the increasingly alarming science the more they will recognise that there is a growing sense of urgency here.

Q45 Dr Turner: You have already said that you are fairly pessimistic about the prospects of developing a post-Kyoto Protocol. Do you say there is a brighter chance of getting progress in the working group to make Kyoto stick and produce results?

Ian Pearson: I am not sure I used the word "pessimism". I said that I did not believe we would do the big deal at Nairobi that needed to be done in the future. The meeting is not really set up for that purpose. Clearly, there will be a discussion amongst Annex 1 countries as to whether they are meeting their current Kyoto targets. You are right to highlight that as an issue, because we need to make sure that the commitments which countries have made are honoured and delivered. It is legitimate for people to say, "How can we even talk about what happens after Kyoto if we are not going to deliver on Kyoto?" We are doing it in the UK, but we need to face the fact that some countries are way behind in terms of meeting their Kyoto targets. I am sure that that will be pointed out during the course of the two weeks of plenary meetings and negotiations at Nairobi.

Q46 Dr Turner: What about the countries that have not even signed up to Kyoto? What will you do at Nairobi about the Americans, Australians and so on—the biggest per capita polluters in the world?

Ian Pearson: We continue to have a healthy dialogue with the United States on this issue. As you know, it is not the case that nothing is happening in the United States when it comes to tackling climate change. We have seen the recent announcements in California in terms of the Bill that that state has introduced and the proposals for an emissions trading scheme with the north east states of the US.

Q47 Dr Turner: But the federal administration is not involved.

Ian Pearson: Yes. Let us not neglect the number of American cities that have signed up to Kyoto. There is no hiding the fact that we have an issue

with the federal government and there is no desire on my part to do so. I believe that a lot of people are saying, "This administration does not seem willing, and has not proved willing, to do anything at a federal level in terms of targets and commitments. Let us see what the next administration does." A number of other countries are basing their negotiating stance almost on what happens after the next US presidential election.

Q48 Dr Turner: If the Grand Old Party continues to hold the administration that may not be a good strategy?

Ian Pearson: I do not want to speculate on American presidential elections. I just want to make the point that there is a growing recognition on the part of people and politicians within the United States that America needs to do more. If we can get to a stage where America wants to play a leading role in climate change negotiations I think that will be enormously helpful in terms of delivering a positive outcome. When one looks at the fact that 20% of global CO₂ emissions are attributable to the United States there is no doubt that one needs the US on board.

Q49 Joan Walley: To go back to Nairobi again, there is a sense that everything is really a vicious circle. We need to be there. Where is it we need to be? What is the overall objective? I think the Prime Minister said it is essential that all countries sign up to a stabilisation goal and we also have a framework for binding targets but also a route map, if you like, to get there. From where I sit it is very difficult to see which of those is likely to be the first one that can be agreed as a result of what takes place in Nairobi. How do you see this panning out?

Ian Pearson: As a government we certainly believe that we need a goal for stabilising CO₂ emissions. The position of the European Union is that we need to avoid dangerous climate change by making sure we can limit the maximum increase in temperature to below 2°C. What comes first, whether it is practical action or agreement on an overall framework with targets, is an interesting question. I am not quite sure what the ultimate answer will be. What we have tried to do in the United Kingdom through the Gleneagles dialogue as well as the UN process is to talk to countries and encourage them to take practical action on the ground. In Mexico agreement was reached with South Africa to deliver some practical projects. We have other projects with key countries. The EU's project with China, heavily influenced by the UK, on near zero emissions coal is I think very important as a demonstration project for the future. I think that it has to be a mix of continuing the debate and discussion about a stabilisation target, the whole international framework and encouraging practical actions as well. One has to have both targets and a strategy that include a set of specific measures to enable one to reach those

targets. That is why I believe things like sectoral approach and discussing deforestation and aviation are very important in that context.

Q50 Joan Walley: At this stage it is very difficult to see just what is achievable. What is achievable will depend upon how we shape the very complicated architecture that we need. I want to return to the memorandum that we received from DEFRA about the discussions which took place in Bonn. I believe that some countries felt that Kyoto perhaps needed to be abandoned or replaced with something else. Can you tell us which countries those were, or whether or not that is still an issue?

Ian Pearson: My colleague was at Bonn.

Ms Droogsma: What became clear in Bonn was that there were some different positions as to what the future should be. On one extreme there were a few countries, for example Saudi Arabia and India, that felt that nothing had to be changed and it was fine as it was. We should just keep the Kyoto Protocol and that is it. At the other extreme, countries like Japan and Canada felt that we really needed much more, and probably something quite different, to face up to the challenge. There are a lot of models in between. As the Minister said earlier, what the meeting in Bonn showed is that at the moment we are still coming from very different angles. The challenge is to bring those angles together, which takes time. That is why one needs dialogue not just within the UN framework but within Gleneagles as well to make sure one gets the consensus moving towards one point.

Q51 Joan Walley: In terms of what is possible at Nairobi, is it the case that Kyoto can be amended somehow or other to take on board the different perspectives of different countries and the lack of clarity, or do you think that at some stage for political reasons we will have to negotiate a completely new Kyoto Protocol?

Ian Pearson: We have Kyoto and I do not believe there is any substantial wish to change it and rip it up. Countries like Canada say, "Well, we should never have signed up to the commitment that we did. There is no hope of making it. It was the fault of the previous administration in signing up to it and we will not be held to that as a target", but elsewhere there is a strong feeling among our Annex I parties that Kyoto was important as a landmark and we need to deliver on it. The key point is not to reopen the Kyoto commitments but to say that we should deliver on them and, at the same time, start to discuss what the new commitments and a framework that is bigger and more ambitious than Kyoto will look like. Let us make sure that we have all the countries involved in this and that some of the things missed out at Kyoto, like aviation, are tackled.

Q52 Chairman: Just looking at the post-Kyoto phase and what we may build on it, what is the latest government thinking about contraction and convergence as a long-term goal? We face a good

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number of options now, but a lot of them would be quite consistent with a long-term commitment to achieving contraction and convergence?

Ian Pearson: I know that Colin Challen would have raised this issue with me had he been here. Our view is that if the Kenyans decide to table contraction and convergence for discussion at Nairobi we will be very supportive of it, but we see it as one of a number of models that potentially can provide a way forward. You will be aware of Brazil's historical responsibility proposals. There are other ideas around at the moment. I think that the best summary of our position is that we want something that works. We are interested in all ideas and want to see whether there is a consensus on any particular elements of those ideas as a way to move forward. Certainly, contraction and convergence has its good points. There are some countries that do not like it and have major problems with it; similarly, there are those in favour and those against some of the views expressed by Brazil, for instance. We need to try to navigate a way through. Whether it is contraction and convergence or other models that are taken forward I do not think that it is something about which we should be specific at this point. It would be wrong to try to champion one particular model. We need to look at a whole series of models and try to find out what offers the best opportunity of working with that critical mass of people who want to sign up to it.

Q53 Chairman: Given that the Kenyans decide to table a discussion about contraction and convergence, would you not want Britain's position to be rather more precisely defined than you have just said?

Ian Pearson: No. I think it is a good contribution to the debate that we need to have, but it is not necessarily the answer. There could be other and better approaches. At this point in the discussions I do not think it is right for the policy stance of the UK Government to be seen to be strongly backing one particular model over another. What we want to do is try to play a leading role in brokering a deal. I do not think one does that by trying to force a model on some countries that just do not want it.

Q54 Dr Turner: To return to the debate on frameworks, is not the debate about which countries will accept what binding targets? Is there not a very real problem that there are countries which will accept targets only if they think they can easily achieve them, so you have only soft targets that do not make the contribution that we need?

Ian Pearson: The fact that a significant number of countries are not on course to meet their Kyoto targets does not lead me to conclude that countries signed up only because they thought they were soft when they were negotiating the Kyoto Protocol. I do not particularly agree with the view that countries will sign up only to soft targets. The fundamental point I make is that it is one thing to agree or not agree a target; it is quite another to deliver a range of actions which will get us moving in the direction that we need to move towards. It

may be that a mix of countries agreeing to formal targets and countries agreeing to take action may be a way forward in future. I think that we need to discuss some of those issues at Nairobi and subsequently.

Q55 Dr Turner: The other matter which creates an impasse is that there are still countries which feel that any action on climate change will be at the expense of their economic development and cannot see their way towards the principle of de-coupling CO₂ emissions from economic development. How do we break that particular impasse?

Ian Pearson: The UK has some really good experience here. Since 1997 our economy has grown by 25% and we are on course to hit our Kyoto targets. We have employment levels that are among the highest in our history. I think we can say that when it comes to de-coupling economic growth from CO₂ emissions it has largely been achieved here; we can point to our economic success as proof of that. At a sectoral level—transport and aviation emissions—there is still a problem, but it is quite clear that this can be done. It is equally obvious to me that when we look at developing countries, particularly some of the poorer ones, there are real prospects for them to leapfrog the UK in terms of the way we developed and our experience in technologies. They can immediately jump to low-carbon solutions in a way that we did not do when we were industrialising in the nineteenth century and for most of the twentieth century.

Q56 Dr Turner: Do you anticipate that Stern's report might give useful ammunition in getting across these messages?

Ian Pearson: I think that the Stern report will provide extremely useful ammunition and some powerful arguments about why it is in everyone's interests to take action now rather than delay. I hope that with the combination of Stern, the availability of technologies and funding through the World Bank we can see some of the poorest developing countries immediately setting out on low-carbon growth paths.

Q57 Joan Walley: If we go back to the comments at the start of our proceedings, it would be very helpful to have the Stern report published before Nairobi.

Ms Droogsma: To add something to that, Sir Nick Stern will give a presentation in Nairobi in a convention dialogue on the first day, so it is imperative that it is published. That will be a major opportunity for all 189 countries in the room to be told about the findings.

Q58 Dr Turner: That would be very helpful. You made it clear that you did not expect a post-Kyoto framework to begin to emerge at Nairobi, but in what timeframe does the Government see that happening or is working towards?

Ian Pearson: We want to see international agreement as quickly as possible because we believe that this is an urgent issue that needs to be tackled

now. One cannot realistically put any particular timescale on it because we are just one of a number of countries that are involved in a complex international negotiation. All I can say is that we will do everything we can to build an early consensus on what that post-Kyoto framework should look like.

Q59 Dr Turner: One element as far as Europe is concerned is the effort to establish a price for carbon. How do you see carbon pricing fitting in to a post-Kyoto framework?

Ian Pearson: The price for carbon is really important for the future. At the moment the price is set in the market through the emissions trading scheme, and that is probably the best way to do it. But I want to see it evolve so that there is a world, not just a European, price for carbon. That is why the ability to extend the EU emissions trading scheme is important. One of the negotiating objectives of the UK Government is to make it easier for other countries to link in with the EU emissions trading scheme in future. Obviously, we need to ensure that we have a carbon price which those in the market who are making long-term investment decisions know will be at or around the right level to bring forward investment decisions in low-carbon technologies. That is an important way to ensure that we get a roll out of carbon-catching and carbon storage and other key technologies that we will need for the future. But at the moment I recognise and accept the fact that there is some market uncertainty about the long term price of carbon. The more we can do to bring certainty within Europe and wider the better it will be in terms of moving forward the whole agenda.

Q60 Dr Turner: But in order to make that a practical reality on a world scale you will need to bring in countries like India and China. Do you see any prospect of that?

Ian Pearson: I would dearly love China to decide that it wants to introduce an emissions trading scheme and for it then to decide that it wants to link that scheme with the European one; similarly with India. Whether or not that will happen I do not know. More realistic shorter-term prospects might be to look at how some of the states in the US could be linked into the European emissions trading scheme. At the moment that is difficult because the US is a non-Annex 1 country and it would, as I understand it, mean amending the directive, but we need to look at these sorts of things. I am a climate change optimist. I believe that in 20 or 30 years we will have a global price for carbon, and that is certainly something towards which we need to move if we are to de-carbonise our economies worldwide. Some of the recent science that I looked at is really scary. If one looks at the growth in population, by 2050 it is likely to be nine billion. If one looks at the cost of feeding that population some things can be done in terms of low carbon production; in other cases that is not so. Basically, some of the science says that the amount of carbon required to feed nine billion

people will take all the carbon emissions that our world can take if we are not to have dangerous climate change, so everything else will have to be zero carbon. Therefore, it means zero carbon transport and power generation which is a huge challenge for us.

Q61 Dr Turner: And you are still an optimist?

Ian Pearson: Yes. I believe that in Europe we can move to zero carbon power generation in future and that must be a goal for us.

Q62 Chairman: As far as Europe is concerned, will the period which the third phase of the emissions trading scheme system in Europe covers have to be settled before we know what the period covered by the post-Kyoto phase worldwide will be?

Ian Pearson: As you know, we are starting a process of reviewing the ETS and what phase 3 might look like. I suppose my initial reaction is that I want the phase 3 to be more ambitious, to have tighter caps and to be longer term than phases 1 or 2. At the moment the emissions trading scheme is designed with an explicit link to Kyoto, so one is talking about a very different animal if one is considering something without a Kyoto link. Clearly, if we can get early agreement on an international framework and commitment in time we can link the ETS to a new round of commitments. If not, the last thing we should be doing is to decide not to have a phase 3. We must have a phase 3. Whether or not it has a target linkage, the most important thing is that it is there and bears down on CO₂ emissions. I do not think that anything more realistic can be said beyond the timing of the two events.

Q63 Chairman: You referred to some of the more alarming scientific projections. Given that and the fact that the meeting is taking place in Nairobi, are you concerned that there may be a considerable focus on adaptation and less attention paid to cutting emissions and the actual concentrations of greenhouse gases?

Ian Pearson: There will definitely be considerable attention paid to adaptation, and rightly so. When one looks at many of the Annex 1 countries and those that did not sign up to Kyoto, a large number are very small emitters; they are not a big part of the problem in terms of finding a global solution, but they will be affected by the climate change that is already in the system. I sometimes think that we in the UK do not focus sufficiently on adaptation. Because of lags in the carbon cycle a certain amount of global warming will already with us over the next 20, 30 or 40 years. We will have to adapt in the UK, which is why we have work going on in an adaptation policy framework. That is a really urgent need in some other countries in the world where adaptation will be absolutely central to them. That is why it is important that this is a topic of discussion.

Q64 Chairman: You did refer to historical responsibility and the Brazilian proposal. The memorandum also refers to the fact that Britain and

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Germany helped Brazil in developing the technical merits of that. You were quite cautious in response to my question about contraction and convergence. Is there a bit more sympathy for historical responsibility? Perhaps you see it as another form of pressure that can be exerted on some of the Annex 1 countries.

Ian Pearson: As I hope I have made clear, we do not favour one particular model over another. We are keen to support the development of ideas, whether it be contraction and convergence, historical responsibility, the framework or other models. It is only by going into some of these issues that one can find out whether or not they will have widespread support. Having said that, whatever model is eventually agreed there is no doubt in my mind that

the UK has a historical responsibility as the first nation to go through an industrialisation process. I believe that we have a moral responsibility to show leadership on this issue and need to take into account the CO₂ emissions produced by the United Kingdom in the past. I do not think that at this stage it is possible to say how that is determined. I do not believe that the average person in Britain would deny the fact that this country has contributed to the problem and as a result it will have to do more than other countries when it comes to providing the solution.

Chairman: We have gone a couple of minutes past the time that your office indicated was your deadline. Thank you very much for coming along. We have had a useful exchange. I am sure we shall see you again before long.

Written evidence

Memorandum submitted by the British Cement Association)

INTRODUCTION

1. *The UK Cement Industry*—The British Cement Association is the trade and research organisation that represents the interests of the United Kingdom cement industry in its relations with Her Majesty's Government, the European Union and relevant organisations in the United Kingdom. The members of the BCA (Buxton Lime Industries, Castle Cement, CEMEX Limited, and Lafarge Cement UK) are the major domestic manufacturers of Portland cement, producing over 90% of the cement sold in the UK.

2. Energy represents over 35% of the variable cost of cement manufacture, and it is therefore a primary concern of the industry to take all cost effective measures to improve energy efficiency and thereby reduce its emissions of carbon dioxide.

3. *Emissions Trading*—The cement industry supports the principle of emissions trading, which is becoming an increasingly important component of its activities through the UK Climate Change Levy, (UK CCL), and the EU Emissions Trading Scheme, (EU ETS). Additionally, one Member Company is a Direct Participant of the UK Emissions Trading Scheme, (UK ETS).

4. In the UK, BCA, its member companies and Quinn Cement have been working with Defra, Dti, and their consultants in relation to the development of domestic schemes. At the European level, BCA and other European cement manufacturers work through CEMBUREAU.

5. Through their parent companies, BCA Members are involved in measures to reduce carbon dioxide emissions under the World Business Council for Sustainable Development Cement Sustainability Initiative, (WBCSD CSI). Additionally, Member Companies have made their own voluntary agreements to the reduction of carbon dioxide.

6. *The BCA Response to earlier Consultations*—The British Cement Association submitted evidence relating to emissions trading to the Environmental Audit Committee's inquiry, "The International Challenge of Climate Change": UK Leadership in the G8 and EU"¹ and is preparing evidence on its inquiry "The EU Emissions Trading Scheme: Lessons from Phase I"².

7. In addition, it has submitted evidence on emissions trading to other select Committees of the House of Commons³ and House of Lords.^{4, 5}

8. Together with other delegates from the European cement industry, the BCA contributed to the Paris workshop of the International Energy Association, IEA, on 4 and 5 September 2006. This was one of a series of similar events held with the objective of informing the IEA in its role as advisor to G8 in its discussions on climate change.

GENERAL COMMENTS

9. The UK cement industry is committed to sustainable development, and a major component of its work in this area is the minimization of the impact of its greenhouse gas emissions. The UK industry is developing a carbon strategy, that will enable it to make a major contribution to the >60% reduction in greenhouse gas emissions by 2050.

10. In order to achieve this it is necessary to have in place SMART targets (ie specific, measurable, achievable; realistic; and time-bound) that enable all actors to make meaningful contributions to overall 60% target.

¹ "The International Challenge of Climate Change: UK Leadership in the G8 and EU", HC 105, Ev 214.

² To be submitted.

³ BCA Evidence to Environment, Food and Rural Affairs Committee, Ninth report, Session 2004–05, Climate Change: Looking Forward, HC 130-I.

⁴ BCA Evidence to House of Lords Science and Technology Committee, "Energy Efficiency", 2nd Report of Session 2005–06, HL Paper 21-II, 197, 213.

⁵ BCA evidence to House of Lords, European Union Committee, Sub-Committee D (Environment, Agriculture, Public Health and Consumer Protection): "The EU and Climate Change", 30th Report of Session 2003–04, HL Paper 179-I, 88 (written evidence), 92 (oral evidence).

11. At the recent International Energy Association workshop in Paris, the European cement industry came to the following conclusions:

- 11.1 the industry is supportive of emissions trading;
- 11.2 experience with Phase I has demonstrated that the principle of national allocation of allowances is flawed;
- 11.3 there is a need for long term certainty of controls/rules associated with trading to allow industry to make the necessary investment decisions for new plant. In addition, it is important to avoid market distortions occurring as a result of windfalls;
- 11.4 the legislation timescale must match industry investment cycle; and
- 11.5 the cement industry believes that bench-marking is the way forward, but current approaches are not ideal; the technical potential of industry for reducing CO₂ must be taken into consideration.

12. The pre-requisites for the development of meaningful measures on a global basis are:

- 12.1 Sound data on the current level of emissions.
- 12.2 Robust procedures for measuring, monitoring and reporting emissions.

13. At the IEA workshop, it was identified that this is not the case for nationally-generated data (on emissions from cement manufacture) pertaining to India, China and Latin America, although multi-nationals operating within these countries have the necessary structure and procedures for achieving this within their own organizations.

14. Through the World Business Council for Sustainable Development's Cement Sustainability Initiative, (WBCSD CSI), a global, externally accredited, monitoring and reporting protocol has been produced, and is being used within Europe in relation to the EU ETS and other measures.

COMMENTS ON THE QUESTIONS RAISED BY THE COMMITTEE

What is the likely outcome from the meetings in Nairobi in November? Will the Parties to the Protocol be able to maintain whatever momentum they possessed at Montreal in 2005?

15. BCA believes that unless momentum is maintained, the credibility of current GHG initiatives may be seriously undermined and will be difficult if not impossible to regain.

16. Vital to building on the current momentum is the acceptance, by a substantially larger audience than at present, of the urgency for meaningful GHG reductions to be achieved.

What is the likely shape of an agreement post-2012 which will (presumably) include at least all those currently signed up to the Protocol? To what extent will the current stance of the United States of America and other countries not signed up to the Protocol influence the discussions concerning any post-2012 framework?

17. Although an increasing number of parties are now signatories to the Kyoto Agreement, there appears to be relatively little enthusiasm, even within Europe, for the adoption of meaningful targets for GHG reduction.

18. It therefore seems likely that *post-2012*, any modifications are likely to be incremental rather than significant step changes. Unless there is acceptance, by a substantially larger audience than at present, of the urgency for meaningful GHG reductions to be achieved, global reduction in greenhouse gas emissions will be insufficient to prevent significant climate change.

19. In addition, there will be a growing imbalance in competitiveness between those countries that are taking realistic measures to reduce their GHG emissions, and those that do not. Commitment of the United States of America to such a goal must be a primary aim of future negotiations, and current discussions with the State of California indicate the possibility of progress in this area.

20. BCA believes that global failure to expand the application of GHG abatement through an ETS approach will ultimately lead to the demise of basic domestic industries such as cement manufacture where imports from non-regulated countries will ultimately dominate. Within the United Kingdom, planned development for two new manufacturing plants has been postponed, while investment in plant for handling imported cement has increased.

21. Important lessons can be learned from the first Phase of the EU ETS, and the BCA is preparing a submission to the Environmental Audit Committee inquiry on this issue. In the context of this enquiry, these lessons may be summarized as follows:

- 21.1 The current national approach to the allocation of carbon credits is illogical and anti-competitive. Each Member State has a different Kyoto target to meet, and has allocated the capped emissions in a different manner. Pan-European sectoral allocations is one possible solution.
- 21.2 There must be an acknowledgement that each industry sector has different technical and commercial abilities to reduce GHG emissions. This will influence its ability to contribute to an emissions trading scheme.
- 21.3 The European Emissions Trading Scheme can provide a model for similar schemes elsewhere in the world. However, such a replication will be of little value unless trading between such schemes is possible. This would demand a greater degree of parity in target-setting than in the current European scheme, in addition to sound measurement, monitoring and reporting schemes.
- 21.4 The current difference in the price of carbon between the UK and the EU ETS scheme provides a clear indication of the need for parity between trading schemes—UK ETS: €2.2 to €5.9, (depending on quantity); EU ETS: €16, (spot); €20, (forward, 2008).

What should be the position of the UK Government and of the EU in the discussions? Is the UK Government and the other governments of the EU in a good position to show leadership?

22. To date, the United Kingdom has demonstrated leadership through the development of the UK CCL and ETS schemes. This has resulted in a number of benefits:

- 22.1 The achievement of the targets set, although there is less progress towards the domestic 20% aspirational goal.
- 22.2 The establishment of a trading registry, and experience of government and industry in trading.

23. However, there are still lessons to be learned:

- 23.1 The UK ETS and EU ETS are directed towards the same goals and provide a clear example of the “double banking”, contrary to the EU and UK aim of “Better Regulation”. This was highlighted by BCA in its response to the Hampton and Davison enquiries. These two trading schemes are incompatible, place burden on industry, and generate carbon credits that cannot be effectively inter-traded.
- 23.2 Procedures within the UK are inflexibility in relation to the operation of the EU ETS Clean Development Mechanism, (CDMs), to the extent that UK firms are using through countries such as Holland to develop their schemes, rather than the UK.

24. Whilst the record in achieving greenhouse gas reductions of some Member States, including the United Kingdom, places them in a good position to demonstrate leadership, this does not appear to be the case for the EU as a whole.

25. The BCA welcomes the initiative of the Secretary of State to develop an “UK Manifesto on the EU Emissions Trading Scheme”, with a view to encouraging others in Europe and else where to adopt an effective trading scheme as a means of reducing their greenhouse gas emissions.

26. In this context, the areas in which BCA believes that there could be common ground between business, environmental groups and government to shape the idea of a manifesto for the future of the EU Emissions Trading Scheme include:

- 26.1 Development the current Kyoto agreement to include additional countries, and more meaningful targets, working towards the goal of achieving CO₂ reductions of 60% or more by 2050.
- 26.2 Development of global emissions trading based upon schemes that are compatible with the EU ETS.
- 26.3 Further development of the EU Emissions Trading Scheme to incorporate lessons learned from Phase I and the UK Climate Change Levy.
- 26.4 The requirement for a long term view on carbon policy, and certainty on the measures to be implemented.
- 26.5 The development of a market that functioned efficiently.
- 26.6 The requirement of a level playing field.
- 26.7 The need for all sectors of society to work to achieve reductions in carbon dioxide emissions.
- 26.8 Application of the “proximity principle”, internalizing the cost of carbon where possible, ie it is preferable to achieve carbon reductions from BAT plant in the UK, than to import products from plants outside the EU with equivalent or worse environmental performance.
- 26.9 Sector-specific R&D for the promotion of energy efficiency, that will lead to the investment in technologies for energy reduction and product alternatives.

27. Whilst government is clearly best placed to exploit such positions of leadership, it should recognize the role that certain industry sectors might play.

28. For example, through the World Business Council for Sustainable Development Cement Sustainability Initiative, WBCSD CSI, an externally-verified, globally-agreed protocol for the monitoring and reporting of CO₂ emissions has been developed. Such global initiatives will be necessary if an effective emission trading is to be expanded beyond the European Union.

September 2006

Memorandum submitted by Climate Change Capital

1. SUMMARY

- Although little tangible progress will be made in Nairobi in relation to post-2012 issues, the “show must be kept on the road” with skillful diplomacy and positive messaging. The conference is an opportunity for confidence building and information sharing in relation to the EU’s post-2012 position. There are also a number of pre-2012 issues to be resolved in Nairobi that are important to momentum building.
- The US position is shifting rapidly. The landmark California decision and the proliferation of bills on Capitol Hill have convinced most of US business that a carbon-constrained world is now inevitable. The EU is therefore in a unique position to move ahead by providing post-2012 visibility for investors and capturing a first mover advantage on the international carbon market.

2. INTRODUCTION TO THE AUTHOR

Climate Change Capital is a specialist investment banking group that occupies a distinctive position. With access to a substantial and flexible capital base, we focus on businesses created or affected by the convergence of laws and policies on energy and the environment. Our dedicated team of 90 professionals located in London, Paris, Madrid and Beijing are experts in the fields of renewable energy, clean technology, biofuels and emissions reductions markets.

Kate Hampton is responsible for our relations with the policy community. She is a Sherpa to the EU High Level Group on Competitiveness, Energy and Environment, advising the European Commission. She rejoined the company in January 2006 from a year’s secondment as a Senior Policy Advisor to Defra for the UK’s G8 and EU Presidencies where she worked on the future of international climate change policy. Before joining CCC, Kate was Head of the Climate Change Campaign for Friends of the Earth International. She is the former Convenor of the Green Globe Network, an expert advisory group funded by the Foreign and Commonwealth Office. She was a research associate at the Institute for Policy Studies in Washington DC and an EU policy consultant for Environmental Resources Management. Kate holds a BSc from the London School of Economics and a Master in Public Policy from the Kennedy School of Government at Harvard University.

3. DETAILED RESPONSE

3.1 *What is the likely outcome of the meetings in Nairobi in November? Will the Parties to the Protocol be able to maintain whatever momentum they possessed in Montreal in 2005?*

Unfortunately, little tangible progress can reasonably be expected in Nairobi. Post-2012 negotiations are at a very early stage with countries espousing seemingly entrenched bargaining positions. This should not be seen as an indicator for the success of the negotiations at this stage, however. Political space will change over time. The momentum of Montreal is procedurally locked in but it is unlikely that Parties will make significant progress until the US picture is clearer.

However, there are two other areas where significant progress can be made:

- The conference is an opportunity for confidence building and information sharing in relation to the EU’s post-2012 position. The key elements of this position are science around what constitutes dangerous climate change and the implications for adaptation, the EU’s willingness to make a substantial contribution to avoiding dangerous climate change and the future of the carbon market.
- Technical pre-2012 issues such as institutional strengthening and the Kyoto mechanisms.

3.2 What is the likely shape of an agreement post 2012 which will presumably include at least all those currently signed up to the Protocol?

The Committee should not focus too much on framework design at this stage. There is an abundance of academic literature that addresses this in detail and negotiators are aware of the array of options. The obstacles are not policy obstacles, but political obstacles. It would therefore add greatest value if the Committee were to identify essential elements for the post-2012 regime, as well as the political and diplomatic pathway to get to the end game by 2009.

In our view, most of the essential elements are already in place under the Kyoto Protocol such as emission monitoring and verification, an international carbon currency, the compliance system, and so on. For this reason, it is essential to build on and not replace the Kyoto Protocol, aside from a cosmetic renaming. Strengthening the effectiveness of the regime will depend upon the resolution of a number of trade offs. A few key ones are:

- *Breadth versus depth.* In widening participation the mitigation effort, the right balance needs to be struck between inclusivity and environmental integrity. This is an obvious point, but one that is often lost in the ever expanding lexicon of framework options. A core group of countries with mandatory absolute emission caps is essential.
- *Clarity versus flexibility.* The regime needs to provide enough certainty for investors making long-term infrastructure decisions and enough flexibility for governments to react to changing circumstances. Now that the US is on course to take action by the end of this decade (see next question), the EU could provide investor certainty before an international agreement is reached without compromising competitiveness.
- *Science versus politics.* There is increasing evidence that we are approaching a number of climatic tipping points more rapidly than previously thought; however, defining “dangerous” climate change is a subjective and therefore political process and governments need to return home with a deal that is credible domestically. This often means selling agreement in terms than other climate stabilisation, while keeping the fundamental objective firmly in mind.

In terms of the political and diplomatic pathway, much of it lies outside the formal negotiations. The UK Government recognised this by initiating discussions during its G8 and EU Presidencies. These are a welcome addition to the multilateral climate debate, in particular the work by the World Bank in cooperation with Regional Development Banks on the Clean Energy Investment Framework and the EU’s bilateral partnerships with China and India. These sorts of conversations will all contribute towards a successful resolution of the post-2012 process. However, these must begin to deliver concrete results soon, for developing countries in particular, or there is a danger that momentum will be lost. Informal dialogues are valuable but participants rapidly lose interest if the informality persists for too long.

One area where leadership would clearly be beneficial is addressing the absence of continuity in the carbon market.

There are two types of carbon abatement:

- Low capital cost options involving end-of-pipe solutions, operating behaviour, efficiencies.
- High capital cost options involving long-term technological transformation or infrastructure investment.

The first type of carbon abatement is already occurring very successfully, driven by the EU Emissions Trading Scheme (EU ETS) and the Kyoto Protocol’s Clean Development Mechanism (CDM). However, the second type of abatement remains elusive. Research⁶ shows that policy uncertainty undermines investment. If the policy signal is not sufficiently “long” or “loud”, the option to invest at a later date has sufficient value to delay investment. This dynamic is already evident in the carbon market.

Currently, most decisions driven by the EU ETS are being taken on the basis of short run marginal cost considerations. Providing longer term visibility would increase the range of investment options open to business. The need for certainty is not unique to already carbon-constrained markets, ie Kyoto countries. US power companies recently told a Senate hearing that they were delaying investments in new generating capacity until clarity was provided about the direction of US policy on climate change.

⁶ Unpublished presentation by William Blyth and Ming Yang (Chatham House/IEA, 2005) and *Business Views on International and Climate Energy Policy*, Hamilton and Kenber, April 2006.

CDM and JI investments are expected to slow from 2007 onwards due to the lack of sufficient returns from carbon value before 2012. Experience shows that, for carbon finance to play a catalytic role in energy and infrastructure project financing, carbon purchases of a minimum of 10 years are required.

Unless the issue of market continuity is addressed, there is a danger that momentum may be lost in the carbon market around the time a post-2012 regime is being negotiated, threatening the outcome. Moreover, the Clean Energy Investment Framework of the World Bank and the associated efforts of Regional Development Banks would have to be implemented in the absence of complementary long-term visibility on the carbon market, undermining the leveraging capacity of these financing initiatives.

The Kyoto Protocol set out the need for the use of Kyoto mechanisms to be supplemental to domestic action given that the developed world has to lead in order to reflect historical responsibility and ability to pay for mitigation. Climate stability is a global public good, incurring a clear responsibility for the international community. However, in addition to issues of legal responsibility, “Developed countries have an important role to play in helping developing economies to leapfrog . . . Fast-growing developing countries offer opportunities to accelerate technology learning and bring down the costs of technologies.”⁷ Increasingly, the supplementarity principle will be eclipsed by a debate about “who pays” for the transition to a low carbon economy.

Looking forward, “The optimal distribution of abatement expenditures between developed and developing countries is remarkably consistent in all scenarios . . . Total discounted abatement costs in developing countries between 2000 and 2050 represent between 67% and 72% of total world discounted costs, regardless of the stabilization objective.”⁸ This can partly be explained by the fact that, “By 2050, most of the world’s energy will be consumed in developing countries, many of which are experiencing rapid growth.”⁹

Assuming abatement costs are distributed pro-rata according to GDP:

- With a 450 ppm target, annualised North to South payments for carbon from 2013 to 2050 would be between \$20 and \$130 billion (1995USD)¹⁰. This would still leave, however, between \$32 and \$370 billion (annualised) to be paid by the South.
- With a 550ppm target, annualised North to South payments would be between \$3 and \$68 billion.”¹⁰

The CDM is inadequate to the task and will have to evolve. This is one of the expected outcomes of the Stern Review on the Economics of Climate Change. Any policy intervention to promote carbon market continuity must generate much greater private investment as well as sending a signal about the necessary evolution of the carbon market, including the need for the South to contribute towards the costs of mitigation. This contribution could come and is already coming in a variety of forms as emerging economies introduce price support mechanisms for renewables, subsidies for mass transit systems and so on. These contributions from developing countries are all based on policy objectives, the carbon impact of which can be quantified. How international carbon finance encourages and complements policy interventions in developing countries is a key challenge facing the post-2012 negotiations.

One of the reasons that EU is as yet unwilling to provide certainty that all post-2012 CDM credits (Certified Emissions Reductions, or CERs) will be fungible for compliance under the EU ETS is because EU governments are not willing to commit to paying the full difference between business as usual (BAU) and any project-based emissions reduction for all non-Annex 1 countries in perpetuity. This is the principle upon which the CDM is based. Developed countries, including EU countries, wish to see major developing countries committing to something like one-way targets under which they are rewarded for overachievement but not penalised for underachievement.

In the run up to Kyoto, the international community negotiated a programme for Activities Implemented Jointly to pilot project-based mechanisms. Later, but well before Kyoto had entered into force, the World Bank established the Prototype Carbon Fund in order to kick start the carbon market, providing an evidence base for negotiations on the Kyoto rule book and early deal flow in the carbon market. Something similar is needed now in order to prepare the next phase of development of the climate regime, although this time with much greater participation from the newly activated private sector.

3.3 To what extent will the current stance of the USA and other countries not signed up to the Protocol influence the discussions concerning any post-2012 framework?

Two key factors have recently turned combined energy and climate change into significant political issues in the US: increased awareness of climate change impacts and high energy prices. Traditionally, climate change was seen as a very minor part of the energy question, if indeed it figured at all. However, recent events such as Hurricane Katrina, widespread droughts and forest fires, as well as the public education efforts of Al Gore and key interest groups like church leaders, are resulting in climate change

⁷ *Energy Technology Perspectives 2006: Strategies and Scenarios to 2050*, IEA, June 2006.

⁸ *Clean Energy and Development: Towards an Investment Framework*, 15 March 2006, Annex H.

⁹ *Energy Technology Perspectives 2006: Strategies and Scenarios to 2050*, IEA, June 2006.

¹⁰ *Clean Energy and Development: Towards an Investment Framework*, 15 March 2006, Annex H.

gaining prominence in the media and as a political issue. Contenders for high office now need to be seen to have a position on climate change as part of their energy platform. Although dependence on foreign oil still dominates the energy debate, a more joined up political discourse is emerging. This should not be overstated however, as energy security is still pre-eminent.

US environmental law tends to start at the State level, with the Federal government stepping in later to provide a harmonised framework for business. Moreover, the US usually agrees to international rules only once it has its own regulatory framework in place. On climate change, the reverse happened in that the US debate was initially led by Kyoto. This partially explains the lack of progress made until recently.

Since the proposal for regional emissions trading emerged from the North East States under their Regional Greenhouse Gas Initiative (RGGI), States have been the focus of interest in US climate policy. RGGI will start trading in 2009. Meanwhile, in California, an emissions bill (AB32) has been passed into law. The bill requires big emitters to return GHG emissions to 1990 levels by 2020 and may allow for the use of trading, although not the details will be determined later by the relevant regulatory body, the California Clean Air Resources Board (CARB). Given that the compliance period under the California scheme will not begin until 2012, this is a clear effort to shape the Federal effort rather than go it alone.

In the past six months, activity at Federal level has led lobbyists to rebalance their efforts, indicating the seriousness of recent developments. While State level action in a few places continues to outpace Federal deliberations, more conservative States may not be ready to jump on the bandwagon until a national consensus develops.

In the 109th Congress (2004–06), several climate change bills have been proposed:

- Three bills would cap GHG emissions economy wide (residential and agricultural sectors would be exempt) starting in 2010: S1151 (McCain—new version includes nuclear subsidies), HR 759 (Gilchrest) and HR 2828 (Inslee).
- Four other bills would cap CO₂ from the power sector alongside other pollutants starting in 2010: S150 (Jeffords—superseded by a new bill proposed in July), S730 (Leahy), HR1451 (Waxman) and HR 1873 (Bass).
- New bills are being developed: two bills are expected imminently from Senator Feinstein and Senator Snowe.
- Resolutions and amendments setting out the scientific case and encouraging the Administration to engage constructively in the international negotiations are also on the books.

The short-term ambition level of these bills is low in absolute terms, capping emissions at between 21.7% and 32.3% above 1990 levels in 2010, with the most ambitious only returning to 1990 levels by 2020. However, when compared with business as usual (BAU), the proposals start to resemble the EU ETS, with reductions against BAU in 2010 between 0.8% and 9.5%, with an average of approximately –6%.

The Waxman bill also includes a longer term target of 80% reductions against 1990 levels by 2050, based on annual reductions of 2% rising to 5%. The new Jeffords bill includes the same 2050 target with decadal interim targets. This long-term legislative vision is new in the US Federal debate but mirrors California's aspirational target.

Compared with a year ago, business perceptions have changed significantly. In general terms, an increasing number of large companies have accepted that carbon regulation is inevitable. Once business believes that carbon regulation will happen, three things follow. First, companies want to influence the development of regulation and the ensuing lobbying activity is viewed by legislators as emerging acquiescence. Second, companies begin to demand regulatory visibility, which can accelerate political decision making as legislators come under pressure to help business avoid expensive mistakes or delayed investment. Third, companies begin to take early action to mitigate the impact of impending regulation, starting the process of identifying emission reduction opportunities and seeking credit for their efforts, demonstrating to policy makers that action is possible. Similar trends are visible in Kyoto markets in relation to post-2012 regulation. US environmental regulation usually rewards early action.

Much of the carbon-intensive business community in the US is still dominated by companies that are reluctant to support caps, particularly caps without a safety valve. However, a rapidly growing number are now in the second and third categories of businesses, looking for certainty and opportunity. Some commentators even believe that industry will seek to strike a deal with the outgoing Bush Administration in order to avoid tougher regulation later.

Clearly, whatever the US does will have a major impact on the international post-2012 negotiations. Unfortunately, most US lawmakers are unaware of the potential for either positive interaction (ie the more the US does, the more others will do, the less US competitiveness will be affected) or negative consequences (ie if the US does little or nothing, politicians worldwide will have an excuse to do little or nothing). This is where UK and EU engagement is essential.

It is unlikely that the US will ratify a post-2012 agreement given their track record on international treaties. The Senate must approve treaties with a two thirds majority in order for the US to ratify. Unless the international post-2012 treaty matches the US system very closely, a more likely scenario is that the US system will gradually converge with the international system through, say, linkages with business-level schemes such as the EU ETS. Technical issues will clearly have to be resolved to facilitate this. This is a sub-optimal but potentially positive outcome.

3.4 What should be the position of the UK government and the EU in the discussions? Is the UK Government and the other governments of the EU in a good position to show leadership?

In addition to its ongoing work in the international negotiations, the UK Government should work with other EU countries and other Kyoto Parties in order to:

1. Support post-2012 continuity in the carbon market by:
 - (a) Signalling through the upcoming EU ETS Review and national policy reviews that there will be a market for emissions reductions with an escalating level of ambition within the EU until at least 2025; and
 - (b) Guaranteeing the carbon value of desirable but hard-to-finance CDM projects beyond 2012.
2. Support development of the international climate regime through concrete initiatives that will:
 - (a) Provide learning-by-doing opportunities for programmatic and sectoral carbon mechanisms;¹¹ and
 - (b) Engage multiple stakeholders, including the public and private sectors of developed and developing countries.

This should enable the EU to secure a first-mover advantage in the evolution of the climate regime and improve its credibility in the negotiations.

Government needs to be cautious, but not overly so, in its approach. As confidence grows, government enters into a prisoner's dilemma with industry over who needs to move first. However, government intervention could rapidly be made redundant by newly confident private capital if the right steps are taken. In fact, disintermediation of the private sector should be avoided at all costs.

September 2006

Memorandum submitted by EDF Energy

EDF Energy is one of the UK's largest energy companies with activities throughout the energy chain. Our interests include coal and gas-fired electricity generation, electricity networks and energy supply to end users. We have over five million electricity and gas customer accounts in the UK, including both residential and business users.

EDF Energy welcomes the opportunity to respond to the Environmental Audit Committee's inquiry of 21 July 2006 on the Kyoto Protocol: Beyond 2012 COP12 and COP/MOP2, Nairobi 6–17 November 2006. EDF Energy is fully committed to tackling climate change and we share this commitment with our parent company EDF. We support the UK Government's ambition to move progressively to a low carbon economy and to play a leading role in the global effort to address climate change. In our view, the scientific evidence presented to date justifies action to mitigate climate change by reducing greenhouse gas emissions.

1. INTERNATIONAL AGREEMENT

EDF Energy believes that the UK Government has shown strong leadership in global debate on climate change and is well placed to bring together key countries at the COP12 and COP/MOP2 negotiations. This ability and leadership has been demonstrated at Gleneagles, where the G8 leaders signed a communiqué that included a political statement and an action plan covering climate change, clean energy and sustainable development, and by the agreement between UK and China on near-Zero Emissions Coal with Carbon Capture and Storage and the recent launch of the UK-China climate change working group.

EDF Energy encourages the UK Government to continue to show its leadership and commitment to the further development of international climate change policies and its engagement with other countries in the negotiations to determine an international emissions framework.

¹¹ For a proposal on innovative sectoral interventions in developing countries based on a robust carbon finance approach, see *Sector-based Approach to the Post-2012 Climate Change Policy Architecture*, Centre for Clean Air Policy, August 2006.

We strongly support the need for an international long-term policy framework that incorporates both developed and developing countries. We believe that international commitments covering at least the next 25–30 years are fundamental to providing countries and industry with the clarity and political certainty to secure the necessary capital funding to deliver the UK Government’s aspiration for mitigating climate change.

We believe that these international commitments should be based on the ultimate objective of stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

In the development of these commitments, we also believe that JI/CDM mechanisms must be reviewed in the context of the international targets. They are effective in transferring some capital to developing countries whilst reducing the net increase in global greenhouse gas emissions. However we should recognise that these investments are setting the carbon footprint in these countries for future decades without any recognition of the overall emissions levels and targets required to stabilise greenhouse gas concentrations at sustainable levels. In that sense we need to be careful that we are not burdening countries that are developing these projects with a carbon footprint that is unsustainable in the long term.

2. LIKELIHOOD OF INTERNATIONAL COMMITMENT

The level of risk being taken by either the industrial investor or a national Government, in the drive to lower greenhouse gas emissions, is largely determined by the targets an individual country is willing to sign up to under international agreements. We believe that Governments are uncomfortable with the risks to which they could be exposed by unilaterally signing up to long-term binding targets. This will in turn inform investors’ views on political risk associated with investments in low carbon technologies. Dealing with this risk is fundamental to the success of future international agreements on mitigating climate change.

3. UK GOVERNMENT’S COMMITMENT

EDF Energy believes that the UK Government and the EU must continue to show leadership in the management of climate change. It is important that the UK Government and the EU separates the need for international targets from its own responsibility to respond to the challenge of climate change and move to a low carbon economy.

The EU ETS, as presently constituted, is not capable of sending the signals required to deliver investment in lower carbon technologies in the UK and EU. In our response to the Climate Change Programme Review and the Energy Review, we stated that the EU ETS as currently structured is not capable of underwriting the investment needed to reduce CO₂ emissions in the electricity sector. The primary reason for this is that the policy timescales of the EU ETS do not match the investment life cycles of the sector and investors are unwilling to accept the political and regulatory uncertainty surrounding future CO₂ abatement targets. Although considerable efforts are being made to agree long-term abatement targets across the EU (Phase III and beyond), these are unlikely to be agreed in the near future. This creates a void in political certainty and a significant hurdle for early investment in low carbon technologies.

However, EDF Energy does believe that commercial market-based instruments can be used to underpin the significant capital investment required to lower the carbon intensity of the electricity sector. This can be done without exposing the UK Government to unacceptable financial risks by controlling the amount of CO₂ reductions the Government commits to in this way. These instruments can be designed to reinforce the integrity of the EU ETS in the long term, within the framework of competitive and liberalised energy markets, as advocated by the UK Government. We have outlined how such a Carbon Hedge would work in practice in our response to the Energy Review and we would be happy to provide further details on this.

4. CONCLUSION

The nature of climate change and its importance places a huge responsibility on companies such as ours to work in a constructive and supportive way with Government. We strongly support the UK Government leadership and commitment to the further development of international climate change policies and its engagement with other countries in the negotiations to determine international emissions framework at COP12 and COP/MOP2.

To successfully address climate change globally, we believe that international commitments covering the next 25–30 year incorporating both developed and developing countries are fundamental. We also do believe that the UK Government must separate the need for international targets from its own responsibility to respond domestically to the challenge of climate change and move to a low carbon economy.

Denis Linford
Director of Regulation

September 2006

Memorandum submitted by EEF

INTRODUCTION

1. EEF is the representative voice of manufacturing, engineering and technology-based businesses with a membership of 6,000 companies employing around 800,000 people. Comprising 11 regional EEF Associations, the Engineering Construction Industries Association (ECIA) and UK Steel, EEF is one of the leading providers of business services in employment relations and employment law, health, safety and environment, manufacturing performance, education, training and skills.

2. Efforts to tackle the causes of climate change are now a critical issue for government, individuals and business alike. Policy makers are rightly focused on attempts to reduce harmful emissions, but at the same time sufficient balance needs to be struck between effective action and business competitiveness.

UK GOVERNMENT EXPERIENCE

3. EEF has played a key role in many of the policy debates concerning climate change over recent years, and we are delighted to have the opportunity to contribute to the Environmental Audit Committee (EAC) inquiry “The Kyoto Protocol: 2012 COP12 and COP/MOP2, Nairobi 6–17 November 2006”. We hope our views expressed in this document will contribute to the design of any scheme that will help to meet the challenge of greenhouse gas (GHG) reductions over the next few decades.

4. We believe that the UK government is well-placed to show leadership on matters of climate change, given the level of activity in this area of policy over recent years. However, we feel that not all these experiences are positive, and any leadership role by the government would be enhanced were it to be bold and admit that there have been shortcomings with the measures currently in place to address GHG emissions.

5. The measures introduced—particularly the system of climate change agreements—to address CO₂ emissions within the UK have met with some success. These measures have contributed to the UK being in line to meet its Kyoto target and it is likely that CO₂ levels would be higher had such policies not been implemented. However, over the last couple of years total emissions have been rising and as a result the government seems likely to fail its own domestic targets for emissions reductions.

6. In addition, despite a decade of funding to implement programmes for promoting energy efficiency, the results have so far not met expectations. Plus, the experience of last winter—in which there was a reliance on coal to meet base load electricity production—also serves to demonstrate the enormity of the task and the complexity of issues that need to be addressed and managed.

EUROPEAN EXPERIENCES

7. In Europe the EU Emissions Trading Scheme (ETS) is the main instrument for delivering reductions of CO₂. The Commission has indicated its intention that ETS post 2012 will become the “docking station” for international trading of GHG emissions. In terms of establishing the scheme and implementing the framework to facilitate the trading of CO₂ the scheme has been a success.

8. But, with only one year’s reporting so far on the performance of ETS, it is difficult to assess its effectiveness as a tool to reduce CO₂ on a macro level. At the “coal face” of the trading scheme, we are able to see how fundamental elements of the design of ETS need to be addressed post 2012: both to improve its effectiveness in order to better reduce GHG emissions; and also to ensure international participation within a system that proves sustainable.

9. The EU ETS, like the Kyoto protocol, relies on a “cap and trade” system to reduce overall European CO₂ emissions. Cascaded down to the level of an installation a cap will require companies to choose one of three options: either to buy CO₂ credits; to invest in new technology that will reduce CO₂; or cut production. Cap and trade relies on the market to help deliver reductions where abatement of carbon production is cost effective. For energy intensive industries—where cost effective abatement potential is a less available option—this means purchasing CO₂ allocations or even cutting production. This inevitably introduces

distortions: and EEF would argue that any cap and trade system needs to introduce a level of sophistication that links the cap to abatement potential and technology. Some form of cap is necessary to give a signal to investors; but it must also be recognised that investment in emissions reduction technology in capital intensive sectors may be slow to filter through.

OTHER GLOBAL EXPERIENCES

10. The USA refused to ratify the Kyoto Protocol, primarily because of a disagreement with the capping of CO₂ emissions. However, with the backing of strong public opinion, the USA does agree that GHG emissions should be reduced and has committed to do this as a signatory to the United Nations Framework Convention on Climate Change (UNFCCC). To meet its commitments, the USA—along with China, Japan, India and South Korea—has signed the Asia Pacific Partnership (APP). Recognising the need for technology to help solve the problem, “the partnership will collaborate to promote and create an enabling environment for the development, diffusion, deployment and transfer of existing and emerging cost effective, cleaner technologies and practices, through concrete substantial co-operations in order to achieve practical results”.

11. Recent debate has questioned whether the promotion of technological solutions may not be more effective than imposing a cap. Whilst a cap may be essential for central control it may not be as effective at delivering and incentivising the step changes needed in technologies for the more intensive industries. Add to this the fact the price of carbon is partly driven by speculation—not by the nearness of technology to market or the abatement potential—then a degree of uncertainty creeps into the true cost of carbon.

12. EEF’s view is that the two methods should complement each other: a cap is essential to signal societal concerns about emissions reductions and encourage investment; but only the development and adoption of new technology can deliver those reductions.

LESSONS FROM EU ETS

13. Nairobi COP12/MOP1 is an opportunity to explore the strengths and weakness of each of these systems and begin establishing a framework that recognises these. There is a danger that the European Commission and the UK government will be so eager to sell the merits of cap and trade as it has been implemented through the EU ETS that the weaknesses of the scheme will be ignored and therefore not addressed.

14. EEF has experience of the limitations of EU ETS both in terms of the way in which it can work against incentivising CO₂ reductions and also in the way it can distort competition. In particular, imposing caps based on governments’ forecasts of companies’ output up to six years ahead is virtually guaranteed to result in inappropriate allocations of emissions allowances.

15. The alternative allocation methodology within a cap and trade scheme is auctioning of allowances. We recognise that this might be the most economically efficient and environmentally effective way of distributing allowances to the electricity generating sector, and to any other such sector that is able to pass the costs on to its customers as a result of not being subject to international competition. However, obliging sectors who are subject to international competition to purchase allowances relating to the entirety of their emissions would simply impose an additional, irrecoverable cost burden on companies. It would not yield any additional environmental benefits compared to the current system, because it would be unrelated to companies’ abatement potential. It would put companies at a severe competitive disadvantage and encourage imports from countries not covered by the scheme

16. We believe it is essential that the price of carbon fully reflects the operational realities within sectors and so fully demonstrates the abatement potential. This requires a move away from the cap and trade model for those sectors subject to international competition. Detailed energy efficiency benchmarks could be established and regularly reviewed within sectoral agreements negotiated with the relevant authorities. At the end of each accounting period an ex-post adjustment would then be undertaken that, on the one hand penalises companies that had performed worse than the benchmark, but on the other hand rewards companies that performed better than average. There are a number of variants to this proposal that can be considered, but the essential element is that the “accounting” takes place in response to actual performance against energy efficiency benchmarks. Thus, this removes the need for both government-imposed allocations and auctioning, and thereby safeguarding the competitiveness of the sectors as a whole.

17. We believe that one of the key advantages of this approach is that it can be extended throughout the affected sectors, in order to help engage international players and thereby gradually act as an inducement to governments to develop an international trading scheme. The GHG Emissions Directive is currently under review and it is essential that the review gives time to allow for developments that may come out of the COP12/MOP2 and discussions around alternative arrangements such as the one proposed above.

CONCLUSIONS

18. This issue of Kyoto post-2012 is crucial to the climate change agenda, and EEF is committed to working with policy makers to look at ways of improving the working of emissions reductions programmes in order to maintain the competitiveness of UK manufacturing. Our main concern rests with the future design of the scheme, and the ways in which allowances might be distributed. Our key suggestion revolves around moving away from a cap and trade model, and developing instead a sectoral agreement approach based on benchmarking with *ex post* adjustment.

September 2006

Memorandum submitted by the Royal Society for the Protection of Birds

INTRODUCTION

1. The RSPB is Europe's largest wildlife charity with over one million members. We manage one of the largest conservation estates in the UK with 196 nature reserves, covering more than 131,000 hectares. The RSPB is part of the BirdLife International partnership, a global alliance of independent national conservation organisations working in more than 100 countries worldwide.

2. We consider that human-induced climate change poses the biggest long-term threat to global biodiversity. A paper in *Nature* (Extinction risk from climate change, 8 January 2004) by a large group of scientists (including one from the RSPB) indicates that in sample regions covering about 20% of the Earth's land surface "15 to 37% of species in our sample of regions and taxa will be 'committed to extinction' as a result of mid-range climate warming scenarios for 2050."

3. To avoid such a catastrophe, the anthropogenic greenhouse gas emissions that cause climate change need to be cut hard and rapidly, with global emissions peaking within the next 10 years and then declining steeply. We therefore actively support the Climate Change Convention and Kyoto Protocol processes that provide the global framework for greenhouse gas emission reduction.

THE LIKELY OUTCOME FROM THE MEETINGS IN NAIROBI

4. In Nairobi, there will be four main strands concerning a post-2012 regime and we first discuss them separately here, before attempting to guess the likely outcome of the meeting as a whole. Any final post-2012 agreement will need to bring together all four strands but, for a variety of reasons, they are currently being pursued separately.

Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG 2)

5. This group is tasked with negotiating emission reduction commitments for developing countries after Kyoto's first commitment period ends in 2012. The group was established in Montreal in line with article 3.9 of the Kyoto Protocol which says that "consideration of such commitments [shall be initiated] at least seven years before the end of the first commitment period" (ie start in 2005).

6. Although the AWG was formally established in Montreal it will, in fact, only begin its real work in Nairobi. It took some time to set it up, and especially to elect a Chair, in Bonn in May, and its overall approach to how it pursues its work is not yet decided, although the Chair has issued a short paper on the subject.

7. On the positive side, the new Chair of the Group is very experienced, well known and highly respected by most negotiators; he is Michael Zammit Cutajar of Malta, for many years the Executive Secretary of the Climate Change Convention. It is clear that Mr Cutajar wants the group to proceed on a logical fashion, first analysing the science to determine the overall level of the targets required and then proceeding to negotiate appropriate national targets.

8. It is questionable, however, whether the Group will be able to make much progress on such a complex topic within the limited timetable it has set for itself so far, with only two meetings scheduled for 2007. A number of countries will, as they always do, try to slow the process down, notably some of the OPEC countries. Also, this is a group under the Kyoto Protocol and so non-members of the Protocol have little or no say in its conclusions. The United States can attend meetings and speak at them, but as an observer not an active participant. Whilst this is both inevitable and desirable, given the stance of the Bush Administration on Kyoto, it does raise potential concerns about future US participation in any agreement negotiated without its input.

Dialogue on long-term co-operative action

9. In parallel with the formal AWG negotiation process for developed countries under the Kyoto Protocol, Montreal also initiated an informal process under the Climate Change Convention to discuss “long-term co-operative action on climate change (without prejudice to any future negotiations)”.

10. This is potentially a very useful process because it includes all nations and can, in theory, discuss issues such as the types of commitment that large developing countries might take on. So far, it has not lived up to expectations. Its first meeting in Bonn in May was uninspiring and does not give hope for much progress in the immediate future.

Group on reduced (avoided) tropical deforestation

11. In Montreal, Papua New Guinea and Costa Rica, backed by a group of other, often very poor, developing countries, put forward a proposal under which countries might take on a commitment to limit their rates of deforestation and claim credit for the emissions thus avoided.

12. This is a very important proposal for any post-2012 regime because tropical deforestation accounts for between 20 and 25% of all human-induced greenhouse gas emissions and so anything that can be done to halt, or at least slow down, the process has important implications for climate change, quite apart from biodiversity and other co-benefits. (Note that the proposal does not concern crediting sequestration of carbon in forests but avoiding the emissions from cutting them down, in the same way that energy efficiency or renewables avoid emissions.)

13. The Papua New Guinea proposal is also important because it is for a so-called “sectoral commitment” for developing countries, which are not being formally debated elsewhere, although there is much informal discussion. Such a commitment would take the form of a developing country voluntarily taking on a commitment to limit emissions from a particular economic sector to a lower level than would otherwise occur. (Once made, a commitment would be binding for a particular period.) For example, China might take on a commitment to limit emissions from its electricity generation sector. If it emitted less than its commitment, it might then trade its surplus emissions in a continuation of the Kyoto emissions trading scheme, potentially unleashing considerable sums of money for investment in green energy.

14. In Montreal, a group was established under the Convention to examine the Papua New Guinea proposal in greater detail and report back to the Conference of Parties at the end of 2007. Discussions began in May, in Bonn, and most countries (including the EU and USA) welcomed the proposal, although it was widely agreed that it needed a lot more work to make it operational. The only major country to oppose the proposal was Brazil, for a number of reasons decided upon at a very high political level.

15. It is currently hard to tell how far the talks on avoided deforestation will get in Nairobi. It has too much goodwill from both powerful Northern blocs and some of the poorest developing countries to stop it. However, to be effective in terms of releasing substantial funding, the proposal probably needs to be included in the Kyoto Protocol, yet Brazil opposes this and it is hard for the USA to actively promote the inclusion of something it wants to work in an agreement to which it does not subscribe.

Review of the Kyoto Protocol (Article 9)

16. This process should begin in Nairobi. The Protocol (in its article 9) unambiguously states that the first such review should take place at the second meeting of the parties to the Protocol, which is the Nairobi meeting. The Protocol also says that the review should be coordinated with the reviews of both implementation and the adequacy of commitments in the Climate Change Convention.

17. The review should include everything, from the science to the level of emissions reduction commitments and should thus be the first step in considering what a whole post-2012 regime should look like. However, there is much that is contentious in a review. For example, the list of “developed countries” included in both the Convention and the Protocol is now out of dates, essentially comprising OECD members in 1992. There are not only a number of new OECD members (usually the definition of being “developed”) but some prosperous countries that should, in fairness, be classified as developed, such as Singapore.

18. More importantly, it is increasingly clear that some of the large, rapidly industrialising countries will need to limit their emissions if substantial climate change is to be avoided. Whilst the developed countries should take the lead in cutting emissions, these cuts will be insufficient if not accompanied by some emission limitation effort by countries such as India, China, Brazil and South Africa. Even if the USA, the largest emitter, were to reduce its emissions to zero by 2025 and the other developed countries by 2020, if developing country emissions continued to rise then a 400ppm atmospheric concentration

stabilisation goal would be missed shortly after 2025 and a 450ppm goal by about 2035. (To achieve the EU target of staying below a temperature rise of two degree Celsius atmospheric concentrations of greenhouse gases need to stay below 450ppm.)

19. However, the major developing countries have excellent negotiators and they are unlikely to wish to rush into talks that will result in their having to limit their emissions.

The whole Nairobi process

20. The RSPB is hopeful that the article 9 review will be started in Nairobi, which would constitute significant progress in itself. We do not anticipate breakthroughs in either the AWG 2 process or the avoided deforestation talks but this would not necessarily be disappointing. At this stage, there is still much groundwork to be done in terms of analysis which could also feed into the Article 9 review. If the review goes ahead, we anticipate that the steam there is will go out of the Dialogue because it will be largely replaced by the review, although it would be a pity if it did because the Dialogue has a potentially valuable role to play in doing both background and additional work to the other three processes.

21. A significant practical difficulty in Nairobi is likely to be that meetings will be held in the UN compound some distance from the centre of the city where most delegates will stay. It appears that conference sessions will consequently be restricted to the “normal” UN day of 10 am until 6 pm on weekdays, as opposed to working until at least 9 pm and over weekends as in the norm in the international climate process.

THE LIKELY SHAPE OF AN AGREEMENT POST 2012

22. Most countries, certainly most of those that are parties to the Kyoto Protocol, strongly advocate the continuance of a similar regime. In particular, they envisage continuing but more stringent developed country emission reduction commitments together with the Protocol’s so-called flexibility instruments: the emissions trading mechanism, the Clean Development Mechanism and Joint Implementation. This is therefore what is likely to emerge.

23. However, beneath this headline position is host of other, more detailed positions which differ considerably. Whilst the science clearly indicates that the large, rapidly industrialising countries need to take on some sort of emission limitation commitment, there is no general agreement on this; indeed, there has been little or no formal discussion of it. Whilst there is considerable support for the Papua New Guinea avoided deforestation proposal, it is a moot point as to whether it should be included within the Kyoto Protocol or the broader Convention, and there are good arguments either way although, on balance, the RSPB considers that the Kyoto-based approach would work best. The precise shape of any agreement post-2012 is thus far from clear.

24. As the largest emitter in the world, the current stance of the USA on the Kyoto Protocol, and climate change more generally, is clearly very important and of concern to the nations remaining in the Protocol (ie currently the rest of the world with the minor exception of Australia). The Bush Administration’s formal position in the international climate process has been detached, in that they have said that they will only concern themselves with Convention matters and not interfere in those concerning the Protocol. However, although nominally the same, this position has recently slipped considerably and the US is more actively trying to influence the post-2012 negotiations although, as mentioned earlier, the USA has no formal say in Kyoto-related decisions.

25. There is a widespread view that engaging with the Bush Administration on climate change is probably a waste of time and also counterproductive, in that they would probably try to wreck any constructive negotiations. However, it is obviously of concern that a treaty could be negotiated with no US input and which, for that reason alone, might be hard for any future administration to sign up to.

26. Fortunately, the situation in the USA is not as bad as it at first appears. There is considerable interest at US state level in cap and trade schemes, and the two biggest initiatives are led by states with Republican Governors: Governor Pataki in New York who led on the establishment of the Regional Greenhouse Gas Initiative in the North Eastern states and Governor Schwarzenegger in California. Perhaps more importantly have been initiatives in the Senate, such as the McCain/Lieberman Climate Stewardship Bill for a US cap and trade scheme covering 85% of US emissions which narrowly failed by a vote of 43 to 55 in October 2003, and which may well be introduced. (John McCain is the Republican senior Senator for Arizona and Joe Lieberman is the Democrat a Senator for Connecticut.)

27. More recently, the “Sense of the Senate” in June 2005 was that “Congress should enact a comprehensive and effective national program of mandatory, market-based limits and incentives on emissions of greenhouse gases that slow, stop, and reverse the growth of such emissions . . .”, adding a rider that this should not significantly harm the US economy, and in a way that will encourage comparable action by other nations, meaning the rapidly industrialising nations in particular. In May 2006, the House of Representatives adopted similar “sense of the Congress” language.

28. There are thus significant US initiatives on climate change outside of the White House. Indeed, it is possible that domestic legislation will be enacted to combat climate change before President Bush's term of office comes to an end. It seems likely that any future President would find it hard to ignore climate change and the international process as the current Administration has done, especially if Federal legislation is passed.

THE POSITION OF THE UK GOVERNMENT AND OF THE EU IN THE DISCUSSIONS

29. It is vital that the EU continues to take a lead in the climate negotiations, and that the UK with our major allies on climate change (primarily Germany and France) should continue to lead the EU. Whilst we have had some reservations about UK and EU leadership in the past, there are simply no other countries or blocs with either the inclination, ability or economic clout to lead, other than the EU. The developing countries have their own leaders, notably South Africa which is currently chair of the G77, but both developed and developing country leads are essential.

30. In the past, EU and UK leadership has sometimes been less competent than might have been hoped but it has, at least, been consistent. The Prime Minister's parallel international initiatives in the G8 and other fora have been generally helpful, although the environmental groups have disagreed about the detail.

31. The UK's rising carbon dioxide emissions have tended to undermine its leadership position in recent years, in spite of government protestations that they plan to rectify this deficiency. We are, however, likely to meet our Kyoto target. The fact that the EU countries have over-allocated allowances to the EU Emissions Trading Scheme has also damaged the EU's leadership credibility. However, it is a sad fact that most other countries are having even less success in curtailing emissions than we are, and so the UK and EU are still in a relative lead, but an unambiguous lead would clearly be better.

September 2006

Memorandum submitted by Shell

Shell shares the widespread concern that the emission of greenhouse gases (GHG) from human activities is leading to changes in the global climate and we are actively participating in the international debate, as well as managing and reducing GHG emissions in our own operations and helping our customers to reduce theirs.

Shell recognises that a major change in energy infrastructure and the way energy is used will be needed over the coming decades if society is going to address climate change. This is a global problem that needs global solutions. No single solution will deliver this major change.

What is the likely outcome from the meetings in Nairobi in November? Will the Parties to the Protocol be able to maintain whatever momentum they possessed at Montreal in 2005?

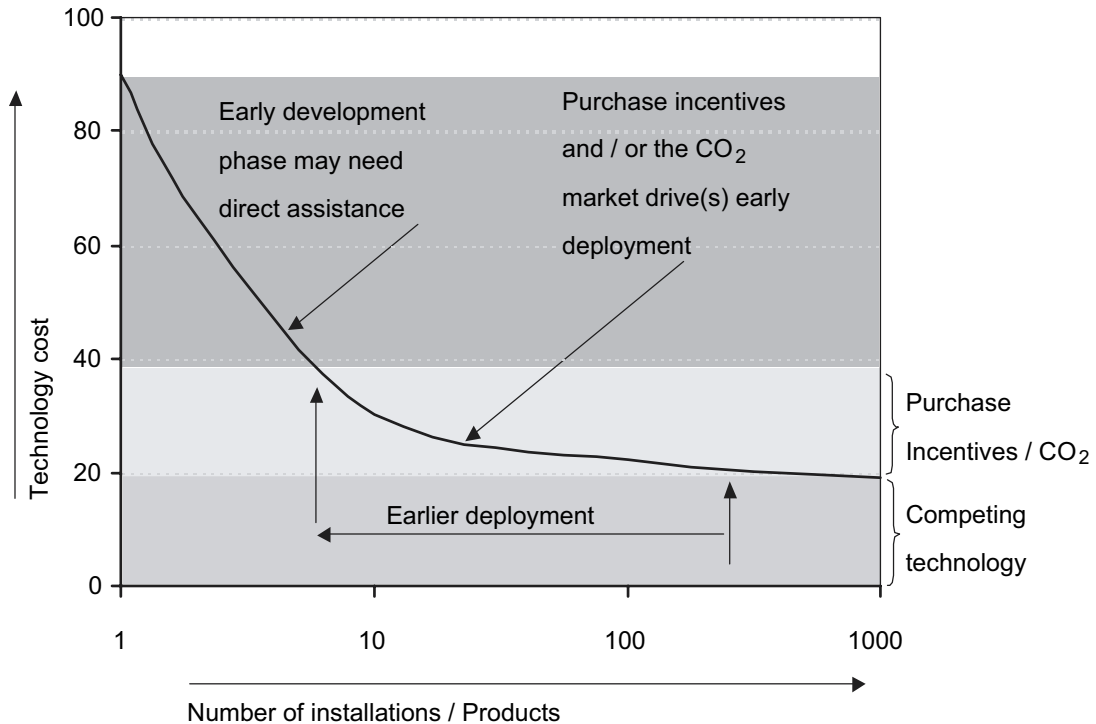
We do not think it is appropriate for us to comment on specific government initiatives in such detail or on the actions of specific governments within such initiatives. However, we do have a view on the direction that the discussions could take in order to facilitate an outcome. We have outlined our view in response to the next question.

What is the likely shape of an agreement post 2012 which will (presumably) include at least all those currently signed up to the Protocol? To what extent will the current stance of the United States of America and other countries not signed up to the Protocol influence the discussions concerning any post-2012 framework?

The issue of climate change arises primarily from our production and use of energy. As such, the end solution lies with energy policy, the approach we take to it globally and the priorities we adopt.

We can start to influence change in our energy system with policy directed specifically at CO₂ mitigation, through energy efficiency measures and upstream carbon management. However, broader frameworks will be required for a full solution. The existing international framework will need to expand in two key directions:

1. Technology development to introduce change into the energy system;
2. The development of markets to foster the more rapid deployment of these technologies than would otherwise be the case.



This two-tier approach is illustrated in the above figure. Specific elements of an expanded international framework would include:

- At the global level, the establishment by 2010 of a quantifiable long-term (50 year) goal for the management of global GHG emissions.

A long-term international goal will give business the confidence that investments in carbon mitigation will continue to generate value over time. The goal will also set the scene for future action and give global markets the opportunity to establish future carbon supply-demand patterns, which in turn will underpin robust market approaches. The long-term goal also becomes a point of reference for the development of national energy and climate policy. The goal would be structured in terms of global carbon emissions per annum and needs to be in place by 2010.

- Encouraging the development of leading edge technologies through partnerships and incentives and developing an approach to mitigate the risks for large-scale new technology programmes and projects.

A number of new technologies will be required to mitigate future carbon emissions. The risks associated with activities where carbon mitigation is a key deliverable (eg CCS, hydrogen from renewable sources etc) are linked to cost and the uncertainty of there even being a future market or demand for such a service. Two approaches can be utilised to overcome such risks.

1. Direct incentives for technology programmes:

- (a) At the international level, cooperative clean development networks can be established between nations, such as the Asia-Pacific-Partnership for Clean Development and Climate (APPCDC). These networks need to set aggressive targets for investment in, and commercialisation of, key mitigation technologies through funded R&D, pilot demonstrations and near-commercial full-scale demonstrations.
- (b) At the national level, policy can encourage the development of new technology through R&D assistance, capital allowances for new low or zero carbon infrastructure (eg national CO₂ pipelines, bio fuel manufacturing facilities) and early take-up incentives and consumer education programmes designed to bring new products and services into the market more rapidly (eg product certification and CO₂ labelling programmes).

2. Managing long-term carbon-market risk:

The carbon-market risk of a new technology project could be mitigated through a mechanism that underwrites the existence of a long-term market for the associated carbon reductions. An approach could potentially be developed as a special case under the existing project mechanisms.

- Modifying the existing international framework such that it builds progressively (bottom up) from local, national, sectoral or regional programmes, but which contribute to the quantifiable long-term international goal. This includes allowing industry sectoral participation across multiple facilities or technology platforms at national level and across national boundaries and enhancing the GHG project mechanisms to cater for sectoral projects.

The existing international framework, the Kyoto Protocol, is broadly a “top-down” approach. By contrast, energy production and use patterns develop largely “bottom up” from local and national policies coupled with the availability and security of energy resources. Aligning the international climate change framework with existing approaches to energy access and security issues would offer greater scope for encompassing the large-scale changes needed in the global energy system. The revised framework recognises that energy and climate policy must, in the first instance, be set at national level. Signatories to the long-term international objective would be expected to develop national programmes (eg renewable energy targets, economy wide cap-and-trade etc) or encourage industry programmes (eg sectoral performance or energy efficiency benchmarks), which are in alignment with the agreed global carbon trajectory. In addition, cross-border industry sectoral programmes would be developed.

National and sectoral programmes need not be based on carbon allocation, but the framework could offer carbon currency conversion. A carbon emissions change can be derived from a programme based on renewable targets or designed to drive energy efficiency. These programmes could then be voluntarily linked into an international carbon market, provided they meet eligibility criteria for entry (eg does the policy measure recognise the international goal and represent a realistic and tangible contribution to GHG reductions). A programme (be it sectoral or national) introduced into the international framework that meets necessary criteria as determined by an overseeing body, becomes eligible for an allocation of tradable carbon allowances or is treated as a project and granted tradable reduction units. How any such carbon units are subsequently allocated to the industries involved in the sector becomes a function of national policy.

- Components of the Revised Framework

The international framework expands from the Kyoto Protocol of 2008–12 and consists of the following elements:

- *The long-term goal*—discussed above.
- *National/Industry Sectoral Programmes*—To accommodate national interests and promote inclusiveness nations can introduce individual “wedges” or sectors of the economy into the international framework—eg, xx GW of renewable energy by 2050, xx mega tonnes of CCS by 2050. This allows flexibility to introduce segments by part rather than the whole nation entering all at once.

In addition, industry sectoral programmes would be accommodated. A sectoral programme might be structured around an energy efficiency goal, a “best available technology” objective or a direct reduction in CO₂ emissions. Importantly, a sectoral programme could cross national borders.

Some nations may develop national policy to the extent that the entire economy can enter as a single “wedge” or “sector”.

- *Projects*—In the revised framework the project mechanism remains, but the definition of a project is broadened considerably such that a whole wedge or sector in one nation or across several nations could become an eligible project. Importantly, projects can be done in any signatory country. Projects are typically done in sectors not covered by a specific programme that may already be part of the framework.
- *Technology Cooperation*—technology development is a key to success, but so too will be the rapid transfer of technology between nations as an enabler of the large-scale deployment required. Global cooperation through an international framework will be required to achieve this level of technology transfer.
- *Carbon Market Participation*—this allows international trading between parties, sectors and projects. Carbon currency in the form of allowances or reduction units for projects is issued at the international level against specific national or sectoral commitments (but subject to scrutiny). This drives projects and delivers the carbon price signal that is the basis for future investment and establishing the lowest cost abatement opportunities. By example, the USA might enter the scheme once it has a domestic trading scheme up and running with its own long-term targets. It would receive a national allocation equivalent to the objective of the trading scheme over the same period.

Many nations with developing economies and rapidly expanding energy demand (eg India, China, Brazil) may enter the scheme with a rising emissions profile, but with a policy programme in place that delivers a relative improvement over time against some metric, such as population, GDP or similar. For any given compliance period (eg five years), emissions projections would be translated at the beginning into an absolute value for that period for

allocation purposes. For reasons of economic development, the allocation would increase from period to period, but would represent a relative improvement in CO₂ emissions against the metric.

Industry sectoral programmes would also be candidates for optional inclusion in the trading framework, either as a single project or as a national sector with allowance allocation.

- *Check-back*—the attainment of the long-term goal requires significant international cooperation. A regular process of check-back at the international level will be required to follow the development of national responses and assess the likelihood of collective success in achieving the goal.

What should be the position of the UK Government and of the EU in the discussions? Is the UK Government and the other governments of the EU in a good position to show leadership?

Having taken a leading role for the period 2005–12 the EU should spend effort in ensuring that there is follow-through in other countries, to ensure that EU companies do not maintain an unfair burden. The EU needs to find a bridge to the United States, even if it means compromising on some closely held beliefs on the shape of the future international framework. A joint EU-US approach to the issue will be much more persuasive in working with China, India, Brazil and the broader G-77.

September 2006

Memorandum submitted by the Shrinking Economies Working Group

Our organisation regards climate change as the most crucial issue affecting life on our planet. We seek to promote greater localisation of economic activity in order to sustain global life support systems and maintain a habitable world in which resources can be distributed in a fairer and more equitable manner.

We consider the system known as “Contraction & Convergence” (C & C) presents the simplest and most effective means of securing global agreement on emission reductions. This would not only secure a progressive reduction in emissions, on an equitable basis, but also—by way of carbon trading—offer potential advantages to both rich and poor countries. Within the U K a political consensus would be needed, to ensure that successive governments are committed to “C & C”; since a majority of MPs have signified their support for a Climate Change Bill, securing year-on-year cuts in CO₂ emissions, we feel this should be achievable.

Our group, in fact, recognises that the climate change problems now being faced are caused by the developed world’s ongoing commitment to economic growth and the continual overuse of resources, especially energy, which have resulted in our having caused the climate problems which are felt most noticeably by developing countries. These poorer countries, indeed, benefit very little from “aid” received from our continually growing economies.

We doubt whether any post-Nairobi arrangement can be made to work effectively unless the “C & C” structure is adopted. While contacts such as that recently announced between the Prime Minister and the State of California are to be encouraged, and welcomed, the failure of any major nations—such as the USA—to “sign up” would inevitably weaken any new agreement. Any efforts made by non-signatory nations must be robustly countered and not allowed to derail progressive measures to protect the planet. Any successor to Kyoto must be more fully comprehensive, to include some areas currently exempted; for example, emissions from aircraft must be included.

A future UK government must radically alter current policy, and adopt a far more independent stance from that of the USA. It must campaign actively and unequivocally for “C & C”, and consult with the EU and other bodies—including authorities within the USA, Russia etc who favour the “C & C” approach. Provided the UK adopts the above stance, we would then be well placed to offer the leadership which is vital in order to secure the future of our planet.

September 2006