House of Commons

Committee of Public Accounts

The UK Emissions Trading Scheme: a new way to combat climate change

Forty–sixth Report of Session 2003–04

Report, together with formal minutes, oral and written evidence

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The Committee of Public Accounts

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Contents

Summary

Introduction

The UK Emissions Trading Scheme (the Scheme) is one of a series of policy measures designed to help the UK government meet and exceed its commitments under the 1997 Kyoto Protocol, an international agreement to reduce emissions of greenhouse gases,[1] which are believed to cause global warming. Collectively, these measures are known as the UK Climate Change Programme (the Programme). The Scheme is the first of its kind and extent in the world — an innovative alternative to traditional 'command and control' regulation of emissions levels.

The Department for Environment, Food and Rural Affairs (the Department) is responsible for managing the Programme and the Scheme. A brief outline of the operation of the Scheme is given in **Figure 1** below. The Scheme has two main components. In March 2002 the Department held an **auction** which allocated £215 million incentive funding over the five years to 2006 to companies and other organisations (known collectively as Direct Participants) in return for promised emissions reductions. Direct Participants can achieve those emissions reductions themselves or buy emissions allowances from other Direct Participants in a **market**. Other organisations, known as Agreement Participants (who have signed up to Climate Change Agreements to reduce their greenhouse gas emissions or improve their energy efficiency) can trade emissions allowances with the Direct Participants, but do not receive incentive payments.

Figure 1: How the Scheme operates

The Scheme has the following features:

It began with an auction in March 2002, in which companies and other participants bid the emissions reductions which they were prepared to make over the five years 2002 to 2006 to win a share of £215 million incentive funding from the Department.

After the auction and in each subsequent year, Direct Participants were issued with emissions allowances equal to their agreed 'target' emissions for the year. These targets were set for each company against a baseline calculated from the average of their emissions in 1998, 1999 and 2000, adjusted where appropriate for any regulatory limits already imposed.

At the end of each year, every Direct Participant must produce a verified emissions statement and hold enough allowances to cover its actual emissions for that year. If a Direct Participant reduces its actual emissions below its target for the year, it can sell its surplus allowance for the year to other companies, including those subject to Climate Change Agreements (Agreement Participants) or save them for use in future years. If it has produced emissions in excess of its target, a participant may buy additional allowances to cover the excess (or use its saved excess allowances from previous years, if it has any).

If a Direct Participant fails to comply with the Scheme rules, the Secretary of State may impose a range of penalties, depending upon the seriousness of the breach. The penalties include the power to declare the statement of emissions to be invalid, to refuse to pay the incentive payment for the year in question, and to reduce or refuse the allocation of allowances for the following year.

If a Direct Participant withdraws from the UK Scheme before the end of 2006, they must repay all incentive money received since the beginning of the Scheme.

1 Carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons and perfluorocarbons.

On the basis of a Report by the Comptroller and Auditor General,[2] we examined the Department on whether the risks associated with this enterprising new Scheme were well managed, the way the baselines for greenhouse gas emissions were set, the effectiveness of the auction and the market, and the wider benefits to the UK economy.

2 C&AG's Report, *The UK Emissions Trading Scheme: a new way to combat climate change* (HC 517, Session 2003–04)

Conclusions and recommendations

1. **The Department has done well to introduce an innovative Scheme for encouraging emissions reductions.** The market approach can be a useful alternative to additional command and control regulation of emissions levels particularly if it does encourage reductions to be made where they can be achieved at lowest cost.

2. **Baselines for such trading schemes do, however, need to be set according to a thorough understanding of participants' current performance and activity.** The Department set baselines for the Scheme based on participants' average emissions for the three years 1998–2000, or by reference to the regulatory emissions limits if lower. Some participants were therefore rewarded with incentive funding from the Department for emissions reductions which they had achieved before the Scheme began.

3. **The Department should seek concessions from Scheme participants who have benefited unduly from generous baseline positions.** Such action is essential if incentive money paid from public funds is to deliver additional emissions reductions and if confidence in the effectiveness of the Scheme is to be maintained.

4. **The generous baselines agreed for some participants have led to a surplus of emissions reductions in the emissions trading market, and could undermine the impact of Climate Change Agreements.** In its annual assessments of the net emissions reductions delivered by the Scheme, the Department should allow for Agreement Participants who are meeting their targets by buying allowances for emissions reductions made by Direct Participants prior to the Scheme's **establishment.**

5. **The success of the Scheme in part depends on there being a functioning emissions trading market, and the Department should establish whether potential participants who would benefit from trading are in fact making use of the market.** If necessary, the Department should act to encourage potential participants' involvement by working with the industry Sector Associations (responsible for the Climate Change Agreements), emissions brokers and verifiers, to reduce barriers to entry such as the cost of verification and lack of understanding of the risks and benefits of trading.

6. **Only 34 companies participated in the Scheme in the end, although the Department had originally estimated that up to around 3,000 companies might benefit.** The Department's experience suggests that innovative policies of this kind require extensive publicity and education, particularly if smaller and medium sized companies are to fully understand the concepts and the basis of participation.

7. **Despite the small number of participants, the Department did not reduce the amount of planned incentive funding from £215 million, although it had the opportunity to do so at the end of the first round of bids.** The Department might have reduced the incentive funding at this stage, and retained some funds for another, subsequent auction armed with a better understanding of participant's

auction behaviours and emission reduction practices, to obtain better value for money.

8. **The Department elected to use an auction method which did not afford an opportunity to assess whether a better deal could have been secured at lower prices.** The Department terminated the auction process when the quantity of additional emission reductions bid by participants, times the offer price, equalled the budget of £215 million. Had the Department continued the auction at lower prices per tonne, the pattern of bids to that point suggested that most of the reductions might still have been achieved at a lower price.

9. **The Department should evaluate the cost effectiveness of the different elements within the Climate Change Programme intended to reduce greenhouse gas emissions.** In particular, the Department should assess the cost of the Scheme in comparison with other emissions reduction measures, to determine whether the Scheme does deliver emissions reductions at least cost.

10. **The Department should evaluate the wider benefits achieved by the Scheme, including the benefits to the City of London, the learning benefits to Scheme participants and the business development opportunities for UK companies, for example in trading and verification expertise.** The Scheme was intended to provide early experience of emissions reductions and trading in advance of an EU emissions trading scheme scheduled to start in 2005, but benefits may have been limited by differences between the UK scheme and the imminent EU trading scheme.

11. **During the transition to the European Union Emissions Trading Scheme, the Department should work with the European Commission and other member states to develop administrative processes (for example, verification processes and national emissions registries) which draw on the experience of those used in the UK Scheme.**

12. **The Department should share information on the developing European emissions market with stakeholders such as the Department of Trade and Industry, City of London banks and the Corporation of London, and support joint initiatives to attract emissions trading to London.** The Department should also work with UK-based emissions brokers, verifiers and consultants to help them develop business with participants in the European Scheme.

1 Baselines

1. The UK Emissions Trading Scheme is an imaginative alternative to the traditional use of regulation to control or limit emissions. Involvement in the Scheme allows companies to weigh the costs of the abatement measures they might take to reduce their emissions of greenhouse gases against the costs of purchasing emissions allowances in the market. The ability to trade also encourages emissions reductions to be made by those companies which can deliver them at least cost, thereby benefiting UK plc. Emissions reductions required through regulation may be less sensitive to the cost of achieving those reductions. The Department has introduced an innovative scheme which relies on voluntary participation and market mechanisms, rather than mandatory participation and regulation.[3]

2. There have been significant reductions in emission levels during the first two years of the Scheme's operation. Direct Participants had reduced emissions by 4.64 million tonnes in 2002 — nearly six times the 2002 target — and 5.18 million tonnes in 2003, over three times the 2003 target. Many Direct Participants have therefore reported over-achievement of their agreed emissions reduction targets. The Department stressed that all reductions benefited the atmosphere, helped reduce global warming and contributed towards achievement of the UK's domestic and international emissions reduction targets.

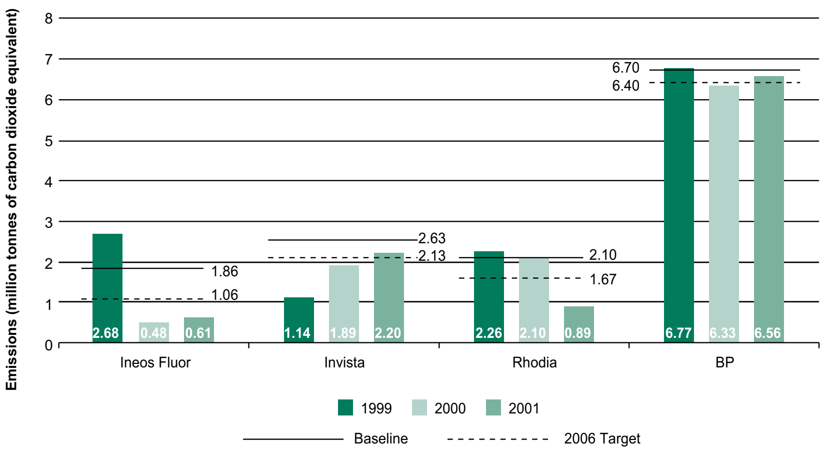
3. Incentive payments were based on reductions below a baseline relating to participants' average emissions levels in the three years 1998–2000. In some cases, emissions baselines set on this basis were too high, resulting in emissions targets which were too easily attainable. In these cases, the Department used regulatory limits to reduce the baselines. The Department acknowledged, however, that the revised baselines had still not challenged some of the larger Direct Participants. For example, the emissions targets for four leading Direct Participants were close to levels that they had already achieved before the Scheme began **(Figure 2)**. The Department had decided not to set tougher baselines for three reasons: it needed to adopt the same approach to all Direct Participants in order to avoid any challenge on the grounds of giving unfair state aid; it wanted to avoid penalising participants who had acted to reduce emissions in advance of the Scheme (so-called "credit for early action"); and the Department also felt that a further tightening of the rules might have deterred prospective participants from taking part.[4]

3 Qq 14, 25, 55

4 Q 4

Figure 2: 1999–2001 actual aggregate emissions, baseline and targets for the four Direct Participants

Targets for the four Direct Participants were close to levels already achieved before the Scheme began.



NOTE

When the auction was held and the incentive decided, in March 2002, the Department did not know all of the annual emissions figures shown. Scheme rules did not reqquire annual emissions during the baseline period (1998-2000), or in 2001, to be disclosed, although two of the four Direct Participants did so.

Source: National Audit Office

4. In the first year of the Scheme, the total emissions by the four companies referred to in Figure 2 were 3.78 million tonnes below their baselines, nine times their first-year target of 0.42 million tonnes. Around two thirds of the reported reductions in emissions by these four firms were directly attributable to the Scheme, while one third was not. The National Audit Office had estimated the value of this third to lie in the range of £2.8 million to £9.8 million. Between them, the four companies were eligible for incentive payments of £111 million over the five years of the Scheme. The Department was committed to paying these moneys if the companies achieved their targets, and the companies could also sell any surplus emissions reductions in the marketplace. The Department had no power to compel the four companies to surrender incentive moneys or renegotiate their surplus allowances but could look to secure voluntary concessions from these firms. The Department was discussing the potential for concessions with the four companies.[5]

5. The recently published results of the Scheme's second year (2003), also show a large over-achievement of targets by some leading Direct Participants. For the four leading Direct Participants, 2003 emissions were 3.84 million tonnes below their baseline, almost five times their second-year target of 0.79 million tonnes.

6. The Department acknowledged that, when setting baselines for future schemes, it would need a more thorough understanding of participants' previous and future emissions performance. With imprecise knowledge of past and future performance, the Department had used regulatory limits, where these applied, to adjust the baselines downwards, but this did not go far enough, since regulatory limits allow some 'headroom' between the limit and the expected normal level of emissions. In the UK Scheme, this 'headroom' had resulted in surplus allowances being given to some participants.[6]

5 Qq 15, 51

6 Q 51

2 The auction and the market

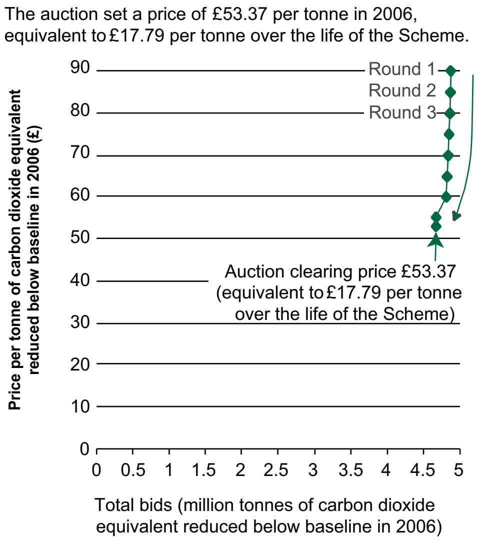
7. The Scheme is expected to cost the taxpayer £215 million in incentive payments over five years. The Department had some difficulty in attracting companies to take part in the auction, postponing the auction twice in order to build up more interest. In the end, 38 companies participated in the auction, of which four dropped out during the auction leaving just 34 participants at the close. The number of participants contrasted starkly with the 420 to 3,100 participants predicted by the Department's modelling. Despite the significantly smaller number of participants the Department decided not to reduce its planned incentive funding for the Scheme. The Department acknowledged that a larger number of participants might have led to a better price or a bigger volume of emissions reductions. The Department and the Treasury maintained, however, that the amount of emissions reductions secured was the most important factor, rather than the number of participants. The Department was satisfied with the auction outcome and the volume of reductions promised because the eventual price obtained was around half of its estimate of the social cost of carbon emissions, on which opening price had been based.[7]

8. During the auction, participants were asked to bid volumes of reductions, as the price was lowered through each successive round of bids. The auction would stop when the price offered, times the volume bid, equalled the £215 million funds available. The Department had an option to cancel the auction or reduce the sum available at the end of the first round of bids, but decided to continue because the opening bids were higher than the benchmark the Department had set. Nor did the Department's auction method provide an option to continue the bidding at lower prices, to see what emission reductions might have been offered. In the end, the volume of reductions offered was inelastic and did not change much as the price was lowered **(Figure 3)**, and it is possible that a large proportion of the reductions offered at the closing price of £53 a tonne may well have been available at significantly lower prices, thus offering better value for money for the taxpayer. The significant overachievement of emissions targets, described above, and the much lower price in the subsequent market which we describe in the following paragraphs, add weight to that view.[8]

7 Qq 8–9, 42–45

8 Qq 6–7; C&AG's Report, Figure 8

Figure 3: Progress of the auction



Source: The Department/National Audit Office

9. The subsequent market in emissions allowances could not be described as buoyant. There were just over 2,000 transactions in the first year and only 325 in the second year of trading. This level of activity reflected in part the structure of the Climate Change Agreements, which require participants to meet targets every two years; the first of these targets coincided with the end of the first year of the Scheme (2002), but the second would not fall due until the end of 2004. Only 866 of almost 6,000 Climate Change Agreement companies made use of the market in the first year of the Scheme. The Department attributed the low level of participation to a lack of understanding of the emissions trading market and hoped to see a growth in market activity in future years. To date, firms had shown a preference for reducing emissions by their own actions rather than through trading emissions in the marketplace. Another indication of the scope for greater awareness of the market was the reluctance of firms to contact emissions brokers, and the resistance and hostility encountered by brokers when cold-calling companies.[9]

10. The current market price of emissions, around £4 per tonne, is significantly lower than the price achieved at auction of £17.79 per tonne. Prices have remained low throughout 2003 due to an excess supply of allowances from Direct Participants who have significantly over-achieved their targets. The market was also uncertain about the impact of the EU Emissions Trading Scheme, planned for January 2005, on the supply of and demand for allowances under the UK Emissions Trading Scheme. When the market offers low price levels, companies subject to UK Climate Change Agreements may prefer to purchase surplus allowances on the UK market to reach their emissions targets rather than adopt carbon reducing actions. If a significant proportion of UK emissions allowances have been made available for purchase as a result of poor baseline-setting, the effect will be to reduce the quantity of genuine additional emissions reductions achieved by the Climate Change Agreements.[10]

9 Qq 73–74

10 Qq 71–72, 75–76

3 The wider benefits of the scheme

11. The Scheme is part of a wide range of measures in the Climate Change Programme, including Climate Change Agreements, the Fuel Poverty programme,[11] the Carbon Trust and other measures such as support for new transport technologies and the photovoltaic (solar panels) industry. A central feature of the Scheme is its reliance on market mechanisms to encourage emissions reductions at lowest cost. The Department had not made a direct comparison between the cost of the Scheme and other measures to reduce emissions, and acknowledged that more research could be done to better inform future policy choices. Some initial work had been undertaken by the Department for Trade and Industry[12] as an adjunct to the recent White Paper on Energy.[13]

12. At the outset, the Department had identified other potential benefits from the Scheme in addition to an overall reduction in greenhouse gases. These benefits included establishing the City of London and the UK as an international centre for emissions trading; the learning benefits to Scheme participants in advance of the establishment of emissions trading more widely across Europe and internationally; and business development opportunities for UK companies, for example through the development of verification and consultancy services. Participation in the UK Scheme was seen by many firms as a 'long term bet' rather than an immediate commercial opportunity, offering the opportunity to gain experience in emissions trading and establish reputations and relationships ahead of European and international trading. To date, however, the Department had not evaluated the extent to which these benefits had been achieved.[14]

13. One important reason for introducing a UK Scheme was to give UK companies a head start in advance of the introduction of the European Union Emissions Trading Scheme, to be launched in January 2005. Faced with the prospect of a European Scheme which would be fundamentally different from the UK Scheme, the Department nevertheless decided to proceed with the UK Scheme. The Department claimed to have been a key player in establishing the European Scheme, details of which were still under development. Eleven of the companies in the UK Scheme had emissions from installations which would also be covered by the European Scheme, and they had applied for an exclusion from the European Scheme to remain in the UK Scheme. If the exclusion was not accepted at European level, these companies would have to transfer to the European Scheme and would therefore have to repay the incentive monies they had already received. If the exclusion was accepted, the companies would continue to receive incentive payments, but their emissions allocations would be the lower of those arising under the UK or EU scheme.[15]

11 5th Report from the Committee of Public Accounts, *Warm Front: helping to combat fuel poverty* (HC 206, Session 2003–04)

12 Q 58

13 Annex 1 of Supplementary Annexes to Energy White Paper, *Our Energy Future – creating a low-carbon economy* (http://www.dti.gov.uk/energy/whitepaper/annexes.pdf) February 2003.

14 Q 61

15 Qq 12–13, 60

14. A role exists for the Department, based on its experience of the UK Scheme, and using its influence with the European Commission and other member states, to help to develop verification processes and national emissions registries based on those already in use in the UK Scheme. UK-based emissions brokers, verifiers and consultants also have considerable experience based on the UK Scheme, which would be of value to European and international companies. There is therefore scope to develop business with participants in the European Scheme.[16]

15. London is already established as the UK emissions trading centre and is well placed to become a focal point for international emissions trading. Participation in the UK Scheme had helped essential advisory services, principally in law, insurance and banking, to gain experience in readiness for new markets. To participate more fully in wider markets, however, dealers and others would need access to information on the developing European and international emissions market. Through close working with stakeholders such as the Department of Trade and Industry, City of London banks and the Corporation of London, the Department was well placed to help strengthen the position of London and the UK as an international centre for emissions trading, by sharing information on the developing European emissions market as this became available. There was scope too for joint initiatives with other member states, such as exchange visits and delegations, to further develop and promote international emissions trading investment in London.[17]

16 C&AG's Report, para 3.30

17 Q 13; C&AG's Report, para 3.23

Formal minutes

Wednesday 15 September 2004

Members present:

Mr Edward Leigh, in the Chair

Mr Richard Allan	Mr Brian Jenkins
Mrs Angela Browning	Mr Gerry Steinberg
Mr David Curry	Jon Trickett
Mr Ian Davidson	Mr Alan Williams

The Committee deliberated.

Draft Report (The UK Emissions Trading Scheme: a new way to combat climate change), proposed by the Chairman, brought up and read.

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

Paragraphs 1 to 15 read and agreed to.

Conclusions and recommendations read and agreed to.

Summary read and agreed to.

Resolved, That the Report be the Forty-sixth Report of the Committee to the House.

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

Ordered, That the provisions of Standing Order No. 134 (Select Committees (Reports)) be applied to the Report.

[Adjourned until Wednesday 13 October at 3.30pm

Witnesses

List of written evidence

List of Reports from the Committee of Public Accounts Session 2003–04

First Report	Tackling fraud against the Inland Revenue	HC 62 *(Cm 6130)*
Second Report	The new electricity trading arrangements in England and Wales	HC 63 *(Cm 6130)*
Third Report	The Sheep Annual Premium Scheme	HC 64 *(Cm 6136)*
Fourth Report	Improving service delivery: the Forensic Science Service	HC 137 *(Cm 6155)*
Fifth Report	Warm Front: helping to combat fuel poverty	HC 206 *(Cm 6175)*
Sixth Report	Department of Trade and Industry: Regional Grants in England	HC 207 *(Cm 6155)*
Seventh Report	Progress on 15 major capital projects funded by Arts Council England	HC 253 *(Cm 6155)*
Eighth Report	The English national stadium project at Wembley	HC 254 *(Cm 6155)*
Ninth Report	Review of grants made to the National Coalition of Anti-Deportation Campaigns	HC 305 *(Cm 6175)*
Tenth Report	Purchasing and managing software licences	HC 306 *(Cm 6175)*
Eleventh Report	Helping consumers benefit from competition in telecommunications	HC 405 *(Cm 6191)*
Twelfth Report	Getting it right, putting it right: Improving decision-making and appeals in social security benefits	HC 406 *(Cm 6191)*
Thirteenth Report	Excess Votes 2002–03	HC 407 *(N/A)*
Fourteenth Report	Inland Revenue: Tax Credits	HC 89 *(Cm 6244)*
Fifteenth Report	Procurement of vaccines by the Department of Health	HC 429 *(Cm 6244)*
Sixteenth Report	Progress in improving the medical assessment of incapacity and disability benefits	HC 120 *(Cm 6191)*
Seventeenth Report	Hip replacements: an update	HC 40 *(Cm 6271)*
Eighteenth Report	PFI: The new headquarters for the Home Office	HC 501 *(Cm 6244)*
Nineteenth Report	Making a difference: Performance of maintained secondary schools in England	HC 104 *(Cm 6244)*
Twentieth Report	Improving service delivery: the Veterans Agency	HC 551 *(Cm 6271)*
Twenty-first Report	Housing the homeless	HC 559 *(Cm 6283)*
Twenty-second Report	Excess Votes (Northern Ireland) 2002–03	HC 560 *(N/A)*
Twenty-third Report	Government Communications Headquarters (GCHQ): New Accommodation Programme	HC 65 *(Cm 6302)*
Twenty-fourth Report	Transforming the performance of HM Customs and Excise through electronic service delivery	HC 138 *(Cm 6302)*
Twenty-fifth Report	Managing resources to deliver better public services	HC 181
Twenty-sixth Report	Difficult forms: how government departments interact with citizens	HC 255 *(Cm 6302)*
Twenty-seventh Report	Identifying and tracking livestock in England	HC 326 *(Cm 6332)*
Twenty-eighth Report	Driver and Vehicle Licensing Agency: Trust Statement Report 2002–03	HC 336 *(Cm 6302)*
Twenty-ninth Report	Improving public services for older people	HC 626 *(Cm 6303)*

Thirtieth Report	Out of sight—not out of mind: Ofwat and the public sewer network in England and Wales	HC 463	*(Cm 6303)*
Thirty-first Report	Cambridge-MIT Institute	HC 502	*(Cm 6302)*
Thirty-second Report	HM Customs and Excise Standard Report	HC 284	*(Cm 6304)*
Thirty-third Report	Income generated by the museums and galleries	HC 430	*(Cm 6304)*
Thirty-fourth Report	Strategic Rail Authority: improving passenger rail services through new trains	HC 408	*(Cm 6304)*
Thirty-fifth Report	Early years: progress in developing high quality childcare and early education accessible to all	HC 444	
Thirty-sixth Report	Tackling VAT fraud	HC 512	*(Cm 6304)*
Thirty-seventh Report	Risk management: the nuclear liabilities of British Energy plc	HC 354	
Thirty-eighth Report	An early progress report on the New Deal for Communities programme	HC 492	
Thirty-ninth Report	Ministry of Defence: Operation TELIC-United Kingdom military operations in Iraq	HC 273	
Fortieth Report	Youth Offending: the delivery of community and custodial sentences	HC 307	
Forty-first Report	Improving departments' capability to procure cost-effectively	HC 541	
Forty-second Report	Increased resources to improve public services: a progress report on departments' preparations	HC 552	
Forty-third Report	Ministry of Defence: Major Projects Report 2003	HC 383	
Forty-fourth Report	Protecting England and Wales from plant pests and diseases	HC 208	
Forty-fifth Report	Criminal Records Bureau: delivering safer recruitment?	HC 453	
Forty-sixth Report	The UK Emissions Trading Scheme: a new way to combat climate change	HC 604	

The reference number of the Treasury Minute to each Report is printed in brackets after the HC printing number

Oral evidence

Taken before the Committee of Public Accounts

on Wednesday 12 May 2004

Members present:

Mr Edward Leigh, in the Chair

Mr Richard Allan
Mr Brian Jenkins
Jim Sheridan
Mr Gerry Steinberg
Mr Alan Williams

Sir John Bourn KCB, Comptroller and Auditor General, National Audit Office, and **Mr Chris Shapcott**, National Audit Office, further examined.

Mr Rob Molan, Second Treasury Officer of Accounts, HM Treasury, further examined.

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL:
The UK Emissions Trading Scheme: A New Way to Combat Climate Change (HC 517)

Witnesses: **Sir Brian Bender KCB,** Permanent Secretary, and **Mr Henry Derwent,** Director, Climate, Energy and Environmental Risk, Department for Environment, Food and Rural Affairs, examined.

Q1 Chairman: Good afternoon and welcome to the Committee of Public Accounts where today we are looking at the UK Emissions Trading Scheme. We welcome back to our Committee Sir Brian Bender, who of course is the Permanent Secretary and Accounting Officer for the Department for Environment, Food and Rural Affairs. You are very welcome, Sir Brian, and perhaps you can introduce your colleague.
Sir Brian Bender: My colleague is Mr Henry Derwent and he is a Director in Defra responsible for Climate, Energy and Environmental Risk.

Q2 Chairman: Thank you very much, Sir Brian. Would you like to have a look at page 18 of the Comptroller and Auditor General's Report and in particular look at figure 6. This relates back to an earlier paragraph, paragraph 2.9 on page 16, which deals with the fact that you were paying incentive payments totalling £111 million. If you look at this figure what we seem to see there is that this scheme was paying these companies about £111 million for keeping emissions down to levels that they had already achieved before they joined the scheme. That is a fair question, that is exactly what happened, but why did you organise the scheme in this way? Why were you paying £111 million for something that probably would have happened anyway?
Sir Brian Bender: I know you do not like introductory statements but can I say one sentence by way of introduction. As the NAO Report says, this was a pioneering initiative. Innovation clearly carries risks and the issues like the one you have just raised arise genuinely from the novelty of the scheme.

Q3 Chairman: Can I make one point on that. I am not going to criticise you at all in this hearing for using an innovative way of encouraging good behaviour as an alternative to heavy-handed regulation. Let us just agree on that point.
Sir Brian Bender: That is very helpful.

Q4 Chairman: But that does not stop me from criticising you for the way you actually handled the scheme.
Sir Brian Bender: There are three or four points I would like to make in reply to the direct question. The first is that our own evidence backs up the NAO's findings that, despite the fact that companies like the four identified here did over-achieve, the majority of emissions are directly attributable to the scheme. Also the scheme itself aims to achieve learning benefits as well as emissions reductions. The second point is we tried to set rules to adjust the baselines to deliver emissions reductions beyond business as unusual and how we did that is described in the Report. We decided not to go further for three reasons: because we wanted to give credit for early action; we wanted to treat participants fairly; and because we felt a further tightening of the rules might have deterred prospective participants from what was a voluntary scheme. There were some participants, the four in question, in the scheme where it has to be said that the lesson we learned was that we did not strike the right balance. Even for them the NAO Report notes that some two-thirds of their emissions reductions were attributable to the scheme. We then learned the lessons from that in relation to how we are trying to apply the EU scheme and also we are in discussions with those companies about what we might do about it in those four cases.

Q5 Chairman: So you accept the premise of my question that you were paying £111 million of public money out to companies to achieve something that they probably would have achieved anyway, however you say it is an innovative scheme and you have learned lessons for the future.

Sir Brian Bender: I think I would argue whether the whole £111 million was spent in that way because, as the NAO Report says, about two-thirds of the emissions reductions even for these companies were attributable to the scheme.

Q6 Chairman: Alright, if we now look at page 22, paragraph 2.38, figure 8, you will see that you spent your full budget of £215 million in the auction. If we read this paragraph and look at this figure could you have been able to spend less and still get a better price per tonne?
Sir Brian Bender: Again I think the answer to that is possibly. We took expert advice. The requirement was to attract sufficient participants to run this scheme and the auction was not held with the intention of using all the incentive money regardless of demand, but we did think it right, in the light of the advice we had, to announce the likely range of incentive money prior to the auction to lessen the uncertainty, because the worry we had was that too much uncertainty would have actually stopped companies participating. The two final points I would like to make are we made a final decision at the end of the first round of the auction as to what the money should be, and we were prepared to cancel the scheme if demand was poor. In the event demand was actually higher than we anticipated and therefore we felt it right to commit the full incentive money.

Q7 Chairman: We are talking about a Dutch auction now and what I am putting to you is that a lower price may have made very little difference to the volumes offered; is that correct?
Mr Derwent: I do not think that we can be sure about that. The events leading up to the identification of the sum and the arrangements for confirming the amount were characterised, as the Report says, by a very strong fear that there would not be enough participants to make a viable auction to exert the appropriate market pressure, and we adopted a system, the so-called descending clock auction option, which essentially requires us to fix a budget after the first round had shown us whether or not we would get value for money, and then push down to see how much we could get at what price in order to exhaust that money.

Q8 Chairman: Alright. Let's look at the number of organisations you managed to attract to the scheme. We know the answer to that question by looking at paragraph 2.33 which we can find on page 21. You went ahead with substantially more than the target number of direct participants but in fact you only had 38 at the start of the auction. Is it true that your initial modelling shows that you may have attracted between 400 and 3,000 participants?
Mr Derwent: There was initial modelling carried out by consultants who came up with that number. We were never were convinced by it. We waited to see what we would get. We fixed in advance the number of 20 as being the number below which it would be unsafe to go and waited to see what the market would tell us.

Q9 Chairman: That is still a staggering difference from that initial model where up to 3,000 participants might be interested and in fact you ended up with 38.
Sir Brian Bender: It was still in excess of some expectations and it was in excess of the expert advice we had that we needed 20 for a successful auction.

Q10 Chairman: Alright. Can we now look please at page 23 and paragraph 2.39 and what this appears to be telling us is that you are paying these companies £18 a tonne for what they could have done for £1; is that right?
Mr Derwent: No, I do not think so.

Q11 Chairman: Explain it to us then.
Mr Derwent: We have paid them an amount of money fixed by a competitive auction to essentially contract with us to deliver a certain number of tonnes of carbon saving irrespective of business circumstances changing and any other vagary that they would normally expect to be able to cover. We have also paid them for the not inconsiderable costs that they occurred in getting involved in and trying to understand this very novel transaction, so we justify the difference between the strike price and the current market price, which is I think about £4, on the basis of those factors.

Q12 Chairman: Others can come in on that if they wish to. Can we look at the difference between this scheme and the European model. As I understand it, half the point of this was to try and encourage Europe to do a similar scheme but if we look at paragraphs 3.11 and 3.14 which we can find on pages 29 and 30 we find that in fact the European scheme is fundamentally different; is that right, Sir Brian?
Sir Brian Bender: There are very significant differences, as the Report says. The EU scheme is mandatory; ours is voluntary. Ours covers six greenhouse gases; theirs covers CO_2 emissions only. Ours covers indirect downstream emissions; theirs covers direct emissions only.

Q13 Chairman: Is London going to become an international centre for emissions trading when Europe has chosen not to follow our lead?
Sir Brian Bender: Can I give you a quotation? There is a man called James Cameron who appeared before a select committee in the House of Lords. He is Chairman of the Advisory Board on Climate Change at Capital, one of the merchant banks and he basically said that we have done ourselves a big favour by starting off on the UK scheme. "We have schooled a number of the essential advisory communities, law, insurance and banking to prepare us for these bigger markets . . ." The Report identifies a number of ways in which our own experience has been valuable in developing rules, monitoring, reporting, and verification of the European scheme. It has been an important learning experience. I guess the fundamental question we faced at the point of launch of our scheme was: should we forego these prospective benefits by not proceeding with the UK scheme because at that

stage there was a Commission proposal on the table which we were seeking to influence. The judgment call we made was, no, we should carry on, subject to the auction attracting a sufficient number of people. We believe there are significant benefits of the sort I have described in earlier questioning that made that the right judgment call.

Q14 Chairman: Okay lastly, as we said right at the beginning of this hearing, this is clearly an innovative use of market mechanisms as opposed to regulation. What have you learned from your experiences so far?
Sir Brian Bender: First of all, it is part of a panoply of measures to deal with climate change, not on its own, so it needs to be seen alongside Climate Change Agreements, the Fuel Poverty Programme that I know this Committee is interested in, the Carbon Trust and other things. It needs to be seen as part of that panoply. We have learned, and this related to one of your earlier questions, about the importance of incorporating future emissions projections into baseline setting. We have learned how to develop registries, verification, and so on, and we have developed an experience that we believe has actually helped companies in this country learn how to save emissions and helped the various advisers, the City and the rest, to be able to benefit as we hope is happening in terms of developing the registry at EU level.

Q15 Chairman: So your fundamental error was the way you set the baseline, with the benefit of hindsight?
Sir Brian Bender: We learned things from it. I still would argue there were things we achieved from the way we did it but there are things if we were going to do it again we would do differently. These are not irreversible because we are now in discussion with the four companies and we are going to intensify those discussions when we have had some advice on year two of the scheme to see whether we can make some changes to deal with their over-achievement.[1]
Chairman: That is one way of putting it! Gerry Steinberg?

Q16 Mr Steinberg: There is an old expression, is there not Sir Brian, you can baffle people with bullshit, and you have got me baffled, I will tell you! Since becoming a member of this Committee, it must be three or four years ago now, I have read hundreds of reports and I have got to say I could not understand this one. I could understand what it was getting at but I could not understand how you were getting there. I have not got a clue how it was supposed to work.
Sir Brian Bender: Is this a question?

Q17 Mr Steinberg: Frankly, I do not think you know either if the truth were known because you can justify anything. It does not look as though I was the only one who was baffled, does it, if you look at the Report, because on page 21, and the Chairman covered it but I think it is worth going back over again because I do not think you told us all you should have done, as I say, I do not think I am the only one who could not understand this scheme because if you look at page 21 and paragraphs 2.29 to 2.31 you were told there were between 420 companies and 3,100 companies that may take part in this scheme. The way I look at it that was because you were giving money away and they expected everybody to come and bite your hands off for the money that was being given away. I would say also I think it is a load of codswallop anyway, frankly because by the time this so-called thing in the sky disappears we will all be dead and so will our kids and our kids' kids, but that is another issue. Why were you only able to attract 34 companies at the end when you were told that there may be 3,100 and you were giving money away as it was? Come on, let's have the truth.
Sir Brian Bender: I am going to ask Mr Derwent to answer the direct question. Your view on climate change is certainly not one the Government shares nor indeed, judging by last night's premiere from Hollywood—

Q18 Mr Steinberg: Sorry?
Sir Brian Bender: There is a new film called *The Day After Tomorrow*.

Q19 Mr Steinberg: I have not got time to look at films. I was busy trying to read this bloody Report which I do not understand.
Sir Brian Bender: Do you want to deal with this point about the number of firms?
Mr Derwent: The paragraph in the Report says correctly that the financial benefit of the incentive ought to outweigh the costs of participating for between 420 and 3,100 firms. That is, if I may say so, the sort of judgment which comes from an economist's analysis on the basis—

Q20 Mr Steinberg: There is a hell of a difference, is there not? They are talking about anything between 420 companies and 3,100 and you are trying to justify the scheme was a success and you could not get 1% of that. That cannot be successful in any sort of situation?
Mr Derwent: Clearly the firms concerned—

Q21 Mr Steinberg:—And you were giving money away as well.
Mr Derwent:—looked at the opportunity, looked at the amount of money they thought would be given away, and decided they did not want to participate. In a way we were asking them to walk backwards in a looking glass world, that is to say you volunteer to limit emissions of something which previously had been regarded as undeniably linked to the productivity of firms and a lot people said, "Thanks very much, we will sit this one out." 38 did not; but the Report goes through the efforts we went to.

[1] See results of the 2003 Commitment period: http://www.defra.gov.uk/environment/climatechange/trading/uk/pdf/2003results.pdf

Q22 Mr Steinberg: You mailed 5,000 companies, did you not, which you thought might be interested, I think it says in the Report somewhere, and you still only got 30 responses and you were doling money out.
Sir Brian Bender: We were doling money out for companies to take a risk to commit themselves to something. The 30-odd did that and, as I said earlier in response to the Chairman, a lot of positive things have flowed from that in terms of the emissions reductions they were achieving and in terms of the experience—

Q23 Mr Steinberg: They would have done that anyway.
Sir Brian Bender: I repeat that the NAO Report says even for the four companies two-thirds of the reductions for those were as a result of the scheme.

Q24 Mr Steinberg: If I remember rightly as well in the Report—I cannot remember exactly where it is now—you had to postpone the auction twice. Were the bells not going? Come on, tell us the truth, what do you really think about it?
Sir Brian Bender: I think it is a pioneering initiative. The City thinks it was a good thing.

Q25 Mr Steinberg: You have got your knighthood!
Sir Brian Bender: Mr Steinberg, I am proud of my people for taking this innovative scheme forward and working in such a way with expert advisers, getting something going. It has got a lot of admiration internationally. It has enabled us to be a leader internationally.

Q26 Mr Steinberg: But if you could only get 30 companies in the whole country out of 5,000 mail shots, it is a mockery, is it not? How can you claim success for that?
Sir Brian Bender: Try again.

Q27 Mr Steinberg: Pass the buck, come on Henry!
Mr Derwent: Firstly, I do not think that that sort of response to a mail shot is one which would be regarded as a failure by many—

Q28 Mr Steinberg: If you put a mail shot round my constituency and said, "I'm going to give you 17 quid a shot for something," if you mailshotted one street I reckon I would get everybody coming.
Sir Brian Bender: And commit your people to a contracted risk and if they did not deliver it they would pay out?

Q29 Mr Steinberg: But they knew they were going to achieve it anyway because most of them were achieving it to begin with.
Mr Derwent: Not most of them.
Sir Brian Bender: Not most of them.
Mr Derwent: And the data that we had about what happened in the past is not the same as an accurate projection of what that company was going to plan to do in the future. The fact remains we made this as well-known as we possibly could and there were not many companies who were prepared to volunteer, and I think that has to be seen against the subsequent introduction of a mandatory European scheme which has effectively forced people to do this. We tried, to begin with, to see what happened if you asked people to volunteer.

Q30 Mr Steinberg: But the scheme was so daft that companies who could actually exceed what you were asking them to exceed were not allowed to.
Sir Brian Bender: Why do you say they were not allowed to?

Q31 Mr Steinberg: It says in the Report. The notes I wrote down when I was reading it actually said there was one company that wanted to exceed their target but they were not allowed to because the scheme prevented them from exceeding it.
Mr Derwent: I may need to go—
Sir Brian Bender: We will come back to you on that particular point.

Q32 Mr Steinberg: There we are, Ineos Fluor. Ineos Fluor wanted to bid more emissions reductions, something like 650,000 tonnes, and were not allowed to. You have not even read the Report.
Mr Derwent: The scheme's rules prevented any one company scooping the pool by more than 20%, and that was very deliberate because perhaps the most important thing we wanted to do was establish a market with a number of participants, and if there had only been two or three companies who together said, "Let's scoop the whole of this," we would have been unsatisfied and not taken it on.
Mr Steinberg: Ineos Fluor clicked, did they not, and thought, "We are on a winner here." They thought, "We are going to make a fortune out of this," and you thought to yourselves, "We have got to stop this to stop one company taking it all out." Another issue I would like to take up with you is the Treasury, who are well known for their generosity, gave you £215 million for the whole scheme. Presumably that £215 million was on the basis of possibly 5,000 firms because that is how many you asked and they had given you £215 million to do that but only 38 firms participated and yet you used the £215 million for the 34 firms. I come back to my first point, you were just doling money out. My money! My money!
Chairman: On that expansive note of doling the money out shall we stop for a moment and vote and you can think of a good answer to try and satisfy Mr Steinberg.

The Committee suspended from 3.53pm to 3.59pm for a division in the House.

Chairman: Do you wish to repeat your question?

Q33 Mr Steinberg: The question was that the scheme was allocated by the Treasury something like £215 million which could have been used by up to 5,000 firms and yet 34 firms participated and the whole of the £215 million was used for the scheme. That seems quite an outrageous waste of money. If you and the Treasury envisaged that the whole scheme would cost £215 million for 5,000 participants—

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Sir Brian Bender: Can I try and answer better than we have done so far. The first point is the aim of the scheme was not to secure X number of participants; the aim was to secure a significant reduction of greenhouse gas emissions and to give participants an advantage over international competitors because we were convinced that trading was going to be the way forward so there was an advantage by "learning through doing", and we also wanted to provide a benefit to the City in terms of the expertise. We believe that those aims have been achieved. The purpose of the incentive money was to create a market so I would suggest it is not right to focus on the 34 because what they were doing was creating a market in which, for example, 6,000 Climate Change Agreement holders can now meet the targets in their Climate Change Agreements by trading and the auction led to 3.96 million tonnes of CO_2 equivalent being saved. That seems to us to be what the scheme was about and why the focus on the 34 risks being misleading.

Q34 Mr Steinberg: The 34 might be misleading but at the end of the day I will ask the Treasury clearly you were very satisfied with them spending the whole of the amount of the money which you had put aside for, let's be generous, 3,000 firms rather than 5,000 firms. Why did you not just say to them spend 1% because only 1% of firms were participating?

Mr Molan: As Sir Brian said, when we considered the proposal from what was then DETR it was not predicated on participation by a particular number of companies. It was focusing on the level of reduction in emissions achieved and stimulating emissions trading; it was not focusing on how many companies would participate.

Q35 Mr Steinberg: I just do not understand that answer at all; I have got to be quite honest. You were just printing money, firms were just getting it. This is the final question. Look at figure 9 on page 24, that just proves my point, does it not?

Mr Derwent: Figure 9 shows the initial price.

Q36 Mr Steinberg: Exactly.

Mr Derwent: Which is somewhere below the auction price, as you might expect in many other releases of stocks to the market, which then climbed back up for a while and the market then decided that there was no reason to fear for the supply and came back down to a level which is probably a little bit above that now; but that is the way the market is identifying the cost.

Q37 Mr Steinberg: Exactly. All I can see—and I may be totally wrong—is that there was a killing made and now they are virtually worthless. If they were shares, they would have reached a peak, they would have been worth a fortune for those who first got in on it, and now they are virtually worthless.

Mr Derwent: I think price today is affected quite considerably by an uncertainty in the market given this detailed development of the EU Emissions Trading Scheme and given that the number of firms in the UK scheme that will be transferred into the European ETS is very unclear.

Mr Steinberg: That was the next point I was going to go on to but I am not.

Q38 Chairman: Before I ask the next questioner to come in I think I am going to ask the National Audit Office to try and explain this to us because I think we are getting answers which are somewhat elliptical. I want the National Audit Office to try and explain to the Committee what figure 6 on page 18, which is about the baseline targets, and what figure 8 on page 22, which is about the progress of auction, actually tell us and I want the National Audit Office to comment on what I think is the truth of this which is is this another way of putting it: that the companies would have received most if not all of this £111 million by doing nothing? In fact, they chose to do more but they could have received all of the money by doing nothing. Could the National Audit Office for the benefit of members of the Committee try and explain this in simple terms.

Mr Shapcott: If I can answer that last point first. The companies are incentivised to reduce emissions in two ways; one is by the incentive money from Defra which takes them up to their targets under the scheme; but they then have an incentive to go beyond that, which is the opportunity to sell the excess in the market at £2.50 a tonne, or whatever the market price is from time to time. In a sense that is illustrating how this economic system of regulation is encouraging them to go further than perhaps their strict obligations under environmental regulation. Turning to figure 6, if I could draw the Committee's attention to the two lines shown for the four companies. First of all, the higher one, the solid line in each case is the baseline the company has been allocated under the scheme, so they have an opportunity to bid into the scheme any reductions that they make compared to that baseline. The bids they actually made resulted in them acquiring targets that are shown by the dotted lines which are further down in every case. The actual performance they achieved is not shown on that figure. It is in fact aggregated in figure 4 on the previous page. The actual performance was below what they were required to do by their targets under the scheme and below their aggregate emissions in 2001. Finally, figure 8 illustrates the progress of the auction. Just to recap on the way in which the auction operated. It began with the auctioneer announcing a price of £100 a tonne and inviting the companies to say what quantity of reductions they would deliver at that price. When that quantity was multiplied by that price the result was compared with the budget available. It was way in excess of that budget, so they went on to the next round with a lower price and there were successive rounds in that way with lower and lower prices and at each round the company had an opportunity to review the quantity that they were bidding into the auction. Eventually, as you can see, they reached a price of just over £50 at which the

quantity bid by the companies at that price exactly spent the budget of £215 million and at that point the auction was terminated.
Chairman: Thank you. Richard Allan?

Q39 Mr Allan: Just to follow that up with a point of information. The companies that are over target, in other words which have surplus capacity they put that back onto the market at £2.50 a tonne is that only within this scheme or can they sell it outside this scheme?
Mr Shapcott: They can sell it outside as well. They can sell it to others of the 31 participants in this scheme but they can also sell it to companies that are involved in Climate Change Agreements.

Q40 Mr Allan: ICI who have got a huge surplus are laughing. Ineos Fluor/ICI are laughing, they have got an asset there that they can trade into the market.
Mr Shapcott: Potentially. We do have figures in the Report later on which give some information on how much has been traded in that way.

Q41 Mr Allan: What we are really trying to establish is whether the taxpayers' money has been spent effectively here or whether really we could have got more emissions reductions for our money by doing something else. In order to do that we need to go through these points again. Would you accept it would have been better value for money had we had 100/150 companies bidding in the auction, lots more tonnage and therefore the result of the auction would have been a lower price per tonne, say, £5 per tonne rather than £17?
Sir Brian Bender: Clearly had there been more companies participating then it would have been likely to have been better, almost by definition. The real risk we saw was having too few and therefore not having sufficient emissions reductions and therefore pulling the plug on the whole exercise because they were taking a big risk in a totally novel process and committing themselves to something no other company had committed themselves to previously.

Q42 Mr Allan: The key marker for the public purse would have been to close the auction at £5 per tonne rather than £17, that would have been more successful, would it, in our terms?
Mr Derwent: I do not think so. Firstly, could I just come back to the question of number of participants. I do not think that it is generally accepted that there is a direct relationship between the total number of bidders and the price achieved, beyond a certain number, which we were advised should be 20. Provided we were above that we were okay because there was enough competitive tension to have people bidding against each other down to the level at which the market clears and the market clears here at a level which is roughly £18 a tonne on the same basis as some of the other figures that we had looked at, and that was justified as well below the benchmark reserve figure that we had set. It was justified on the basis that it resulted in emissions reductions 40% above what we had expected and therefore from those perspectives the auction was a success.

Q43 Mr Allan: Was the benchmark reserve not £100?
Mr Derwent: It was.

Q44 Mr Allan: That was purely arbitrary. There was no market and to say that £17 is less than £100 or to say a real figure is less than an arbitrary one I would not use that as an indicator of success.
Mr Derwent: We were using this auction to try to discover what the market thought the price a tonne of carbon or CO_2 should actually be, something which had never been tested in the market before. We had to address the question of how would we know whether what the market said represented value for money for the economy. We therefore went to an economist's assessment of what is called the "social cost" of carbon, which is essentially the figure beyond which it would not make sense on conventional type economic analysis to pay for the benefits that were received, through some rather tortuous mathematics which I can take you through.

Q45 Chairman: Please do not, Mr Derwent!
Mr Derwent: That translates into £100 a tonne for this auction and that therefore was the reason we started there and when we got below that we were able to say by that measure of value for money we were achieving it.

Q46 Mr Allan: Can I go on to look at risk. We understand at paragraph 2.3 there were some dropouts from the scheme, two of the smaller direct participants withdrew in 2002 and another withdrew in 2003. What happens when a firm drops out? Where is the risk for the business? If there is a scheme they receive a benefit, if they drop out of the scheme what happens to them?
Mr Derwent: They pay back.

Q47 Mr Allan: They pay back any incentive but there is no loss to any business either for dropping out of the scheme or not making their targets. The only loss is they do not get a benefit. There is a carrot they can potentially get but there is no stick?
Sir Brian Bender: There are also the administrative costs that they have undertaken to get to that situation. At least three of the companies that dropped out felt it was not justifiable to have the cost of verifying their baseline. They thought it was going to be too expensive to operate this. The later they drop out the greater they have incurred that cost.

Q48 Mr Allan: The risk is they waste their staff time and some money doing all of this work but they do not have a cash penalty. The benefit is that they get a cash payment from the taxpayer.
Sir Brian Bender: Which then exposes this risk if they do not meet the commitment they have entered into.

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Q49 Mr Allan: But the only risk is paying it back.
Mr Derwent: No, the risk is finding that it is, after all, impossible to meet the contracts which the firm has made with the government to produce a certain number of emissions, and if they were to persist with that and stay with the scheme and just say, "There we are, we have not done it, what are you going to do about that?" there are penalties to deal with that. The most natural thing to do is what the scheme is all about, which is to go to the market and buy what is necessary from somebody else to achieve what you have been unable to achieve yourself. The cost of that purchase is effectively the cost they incur and therefore the risk they should have analysed earlier.

Q50 Mr Allan: And how big are the penalties, how serious is that?
Mr Derwent: No, I am not going to remember. They are large enough—we will provide you with the figures.[2]

Q51 Mr Allan: That would be helpful. Can we look at the baseline figures on table 4, page 16. This seems to be the root of the massive overshooting that has occurred. That table looks to me as if it was a stupid decision to include 1998 in setting the baseline figures. If you are doing this in 2001 there is a very obvious trend there, which even I can see. Why did you include 1998? Would you accept that that was an error?
Mr Derwent: We tried to give credit for early action. There are a number of companies which said, "But we have already taken the steps that you propose now to reward and it would be unfair for you to penalise us for what we have done voluntarily and pay those who have done nothing so far." We came to the conclusion that the three-year average was the best starting line, but we superimposed on top of that the rule that if there had been a regulatory limit in effect, which meant that the companies were forced to get their emissions down to that level, then that regulatory limit should be taken as the baseline and I think that applies in the case of all the companies that you are looking at now. There are lots of arguments about whether that regulatory element is a strong enough constraint to bear the weight that the scheme placed upon it, and I think that we have learned the lessons about trying to mix a regulatory scheme and a purely market scheme in this way which will be used by us if we find ourselves in a similar position in the future; however the future is dominated by the European scheme for which that is less relevant.
Sir Brian Bender: Can I also add, as I said earlier, we are in discussions with the four companies about what can be done about this, so the story has not ended. We are getting advice by the end of this month and we are trying to reach some sort of closure in what is a voluntary scheme with the four companies to deal with the fact that they are over-achieving. We are not simply letting matters rest and saying we will worry about it another time.

[2] Ev 11

Q52 Mr Allan: Can I ask a philosophical question here which is when we look at the success stories in here (quoted in paragraph 2.20) it seems to be, they are quoted in paragraph 2.20, what happened is the companies knew they were going to get a big slug of cash from the taxpayer so they installed emissions control equipment. Would it not have been smarter just to give people grants to install equipment instead of a huge bureaucratic system which cost everybody a huge amount of money. You talk about establishing a market in the City. That effectively means siphoning off a percentage of taxpayers' money to the brokers because they are not doing it for free. At the end of the day would it not have been better to use taxpayers' money to buy these people emissions control equipment?
Mr Derwent: The point of the scheme was to try to get companies considering what the relationship was between the cost of carbon, something which had previously not been regarded as having a cost but which we know is fundamentally linked to global warming, and the price that individual firms have for doing things which reduce their emissions of carbon. The economic efficiency of a trading scheme essentially allows the people with the lowest costs of producing those carbon savings the ability to say to the others, "Hey, we can do this cheaper than you, let's come to a deal." To find there are individual companies who actually have a comparatively cheap way of reducing carbon and therefore can make a profit out of it shows essentially that the objectives of the scheme were being achieved.
Mr Allan: I am mulling that one over, Chairman.
Chairman: Thank you. Jim Sheridan?

Q53 Jim Sheridan: On the front of the Report it says "a new way to combat climate change". Is it working?
Sir Brian Bender: Is it working? Well, as a result of the scheme over the first two years it has led to reductions in carbon emissions so that is a contribution to climate change control and is part of the panoply of measures I mentioned earlier.

Q54 Jim Sheridan: It has cost the taxpayer a great deal of money.
Sir Brian Bender: Then we come back to the question of what constitutes value for money. One of the points I did want to make is that there are a number of wider benefits that part of the Report identifies. What is the value of improving understanding of emissions trading? What is the value of industry understanding the issues? What is the value of having experience that is sought internationally? And when we work out the value for money of this whole scheme, which I think it is premature to do at the moment, we need to make serious attempts to calculate some of these wider benefits and not look simply at the cost of carbon and carbon emissions, important as that is.

Q55 Jim Sheridan: As I understand it, we are offering incentives to companies to reduce their emissions. Why do we not just set a target and then fine them? That is what we used to do.

Sir Brian Bender: The purpose of the exercise was to have a mixture of regulation and market incentive and see whether with this innovative use of taxpayers' money we could create a market that would have a positive incentive rather than simply the heavy-handed regulation, as the Chairman implied earlier.

Q56 Jim Sheridan: Why do we not offer car owners an incentive to reduce? Where does this end?
Mr Derwent: I was going to try to avoid using in this room the phrase "this must be a question for Ministers" but there is obviously a political background to this. At the time the scheme was put together a proposal was made by a mixed public/private group led by Lord Marshall and taken forward by the Emissions Trading Group (which is a combination of the Confederation of British Industry and a number of individual firms) it was absolutely clear that one thing the Government was not going to do was introduce a mandatory scheme or simply deal with carbon reduction by giving grants out on a straightforward basis. They were attracted to the recommendations of the Marshall Committee which was firstly to look at a tax approach, which turned into the Climate Change Levy, and secondly to look at a trading approach, which turned into the scheme of which this auction was a part. That was the brief, essentially.

Q57 Jim Sheridan: Can we draw any experience from European countries that have similar projects?
Mr Derwent: There was a small (in number although substantial in terms of proportion of the economy) trading scheme that was quite similar in some respects introduced in Denmark about a year before ours. You will perhaps have seen we say, and the NAO repeat, that ours is the first economy-wide scheme, which I think is correct. The Danes decided to concentrate purely on their electricity generation sector. Now of course in the European Emissions Trading Scheme the whole of Europe, accession countries and all, is doing this.

Q58 Jim Sheridan: The cost of these emission reductions through the scheme, how do they compare with other policy measures of reducing greenhouse gas emissions?
Mr Derwent: I am looking at a document published along with the Energy White Paper a year ago which provides an illustrative list of costs precisely in terms of the economy rather than direct cost to the taxpayer, which will differ depending on the measure concerned, but think of the support we give to renewables through the Renewables Obligation or think of the support that we give to new forms of transport, engines, in terms of costs to the economy. These range from things which actually should benefit individual firms and the economy, which of course are purely energy efficiency schemes, to very expensive per tonne saved schemes such as support for photovoltaic industries.
Sir Brian Bender: But if you take something like Climate Change Agreements my understanding is that the loss of revenue was originally estimated to be around £300 million a year for that. Here we are talking about a maximum £215 million over five years. That is setting two sets of instruments, one tax one market, and comparing those.

Q59 Jim Sheridan: Are UK companies are blazing the trail so to speak or are they being handicapped by the European scheme which is obviously somewhat different?
Sir Brian Bender: I would say they are blazing the trail in the sense they understand how to do it and what trading means better than their European competitors.

Q60 Jim Sheridan: They have been paid for it as well.
Sir Brian Bender: They then have a choice up to a point. 11 of the companies in the UK scheme have some emissions from installations that will also be covered by the EU scheme and they have applied for an exclusion from the EU scheme to stay in the UK scheme. That will be decided at European level. If the exclusion is accepted they will continue to get the UK incentive payments but they would get whichever was the lower allocation, UK or EU. If the application is turned down and they are therefore transferring to the EU scheme then they will have to return the incentive money and there are 11 of the companies that are in that situation at the moment.[3]

Q61 Jim Sheridan: Could I ask just finally, I do not want to labour the point, this £215 million for the pilot scheme, can you hand on heart say that is money well spent or could it have been used elsewhere?
Sir Brian Bender: My slightly flippant response is it can always be used elsewhere. In terms of whether it is money well spent on climate change issues, it is probably too early to give a definitive answer for the reason I mentioned earlier to Mr Allan about some of the wider potential benefits we need to try and capture, but our judgment is that it has been a success in terms of blazing a trail and preparing and creating market. It is too early for precise quantifications.
Jim Sheridan: Thank you, Chairman.
Chairman: Thank you very much. Brian Jenkins?

Q62 Mr Jenkins: Sir Brian, I have always said that if we have novel schemes come before us we are pleased and if they do not go right we do not mind as long as we are trying. I am surprised you have not said to us, "It is a scheme we ran out, it did not come out quite as we wanted it to. We have learned a lot of lessons. We have tried to adjust it. We would never do it the same again." Would that be right?
Sir Brian Bender: Largely. It is innovative. The issues in the Report, as I said earlier, arise from innovation. I still maintain that it has been successful in some of the examples I gave earlier and

[3] *Note by Witness:* Participants will lose future incentive payments on the element of emissions that transfer to the EU Scheme. They will not lose incentive payments received to date unless they chose to withdraw the emissions not covered by the EU Scheme from the UK ETS.

the quote by this man Cameron is an example of that. It has left the UK and the companies well placed but, yes, there are things we would do differently—and there are some lessons from it.

Q63 Mr Jenkins: I get the impression from the answers we are receiving that where we think reducing emissions is about stopping smoke and stuff coming out of factories and chimneys, here we have got a scheme which has a biased, very innovative, market-orientated purpose which is to create a market that will roll out and where we will see improving emissions reductions in years to come. So of the overall £215 million how do you break down what costs you allocated to each objective because I would say of this one I would have thought that the market establishment compared to emissions reductions was probably 50/50, or would you like to say 60/40 or 70/30? How would you break it down?
Mr Derwent: Sir Brian is looking at me but I am going to disappoint him because I find that almost impossible to answer. The £215 million was justified on the basis that I have attempted, perhaps rather haltingly, to explain to Mr Allan in particular. It relates to a reserve price below which we were convinced that we were getting value for money for the savings of emissions that we secured. Moreover, we would be fulfilling one of our principal objectives, one, which is massively difficulty to quantify, and that is an improvement in the position of the City of London and the UK economy in years to come when they face, as we firmly believe they will, an ever-tightening limit on emissions reductions throughout Europe and probably throughout the world when there will be a need to trade and understand trading in order to beat their neighbours.

Q64 Mr Jenkins: May I put to you that the real priority here was to create a market and not to reduce emissions?
Sir Brian Bender: It was both but creating a market centre in the City of London was a prize. Whether it is 50/50 or 60/40 I think is impossible to answer but it was part of the prize that the City would be the place, and we would look back to the early 2000 years as a time when the decision had taken place where this new commodity trading was centred in the City of London.

Q65 Mr Jenkins: One thing that springs to my mind, I know the question was asked, one participant exceeded their target by five-fold and I think in response to Mr Allan, Mr Derwent said we should not penalise companies for what they have done. That is brilliant but how do you know what they have done? Did you ask them what their emissions reductions were this year, last year, the year before? Did they quantify it? Did they have to give you plans for anything in the pipeline so if they were planning to reduce emissions dramatically in the next two years was that taken into consideration?
Mr Derwent: We started with the data which we collected on what they had done. We superimposed on the averaging which would otherwise have been the means of calculating their limit. We superimposed on that any regulatory obligations that they would have to fulfil; but as for the future we did not ask them what they were going to do because what they were going to do is essentially a matter for them to determine in the light of total costs and potential benefits to them. All we were trying to do was insert in their planning for the future the notion that carbon and the saving of carbon should be one of their objectives.

Q66 Mr Jenkins: I will give you an example and you can tell me if I am right or wrong on this one then. A company was producing HFC-23 and had a bit of a problem and it built an incinerator. That incinerator takes out 97% of HFCs. The incinerator cost them £1.5 million to build but they received off of you £23 million plus substantial income from the sale of their surplus allowances. Was that the plan they submitted to you they were going to build an incinerator for £1.25 million thereby dramatically reducing their emissions, and then we paid them £23 million to do it. Was that a good purchase?
Mr Derwent: If the company can come up with a way of reducing their emissions very dramatically—and HFC-23 is a very, very, very polluting gas—then the purpose of the trading scheme is essentially to reward them for that and to give them the opportunity of making money by it so that they in future and others who see how they benefit from it will be incentivised to do more of the same.

Q67 Mr Jenkins: If the company ends up with an obligation because it had to do it because of the legislation would they be paid enough to not only build the incinerator but be rewarded very handsomely for doing it?
Mr Derwent: No, not if they were under an obligation. The key is whether or not they had a regulatory obligation to do something. If they did, that essentially set the level of the baseline and we would only reward them for going below their regulatory obligation.

Q68 Mr Jenkins: Do you not see that as an example of the taxpayer thinking that is a waste of their money?
Mr Derwent: I find it difficult to respond because it is the business of this Committee to come to that conclusion.

Q69 Mr Jenkins: The answer is yes! When Mr Steinberg asked you on figure 9 on page 24 with regard to price, looking at the market price, I do not want to misquote you so I will give you a chance of clarifying the statement you made. Sir Brian, when we started off at this price you said the price was set high because of the commitment the company would have to make to this and uncertainty in the market. Am I right?
Sir Brian Bender: Largely, yes, they are taking a risk.

Q70 Mr Jenkins: Mr Derwent, when Mr Steinberg asked you why was the price so low you said the price was so low because of uncertainty in the market. Which is right?

Sir Brian Bender: I was talking about the price at the beginning when there was no market established, people were taking a risk, and therefore we got to the starting figure. I do not know whether, Henry, you can say more about what you feel about the current market price.

Mr Derwent: The concern which companies had which prevented them driving the auction price down, below the level at which it was fixed, was that they were clearly unhappy about taking the risk of committing themselves to emissions reductions for a smaller reward than the auction price would give them. The uncertainty in the market, which is currently responsible for keeping the price low, is an entirely different uncertainty, it is uncertainty about how many suppliers and demanders there are going to be in the EU Emissions Trading Scheme and the UK Emissions Trading Scheme when the two come together, as they have to before the start of the EU scheme in January next year.

Q71 Mr Jenkins: But does a low price not show that the market is actually flooded with surplus allowances by these companies who increase their reductions by five times what was predicted?

Sir Brian Bender: That is a fair understanding of what is happening in the market, that the price would be low if there is excess supply.

Q72 Mr Jenkins: Yes?

Sir Brian Bender: And that is one of the reasons why we are in discussion with the four particular companies to see whether there is any action we can take with them in relation to their overhang of the market.

Q73 Mr Jenkins: There are 6,000 companies at present in this country which could use the emissions market but only 866 did so in the first year. Is there any underlying reason why that is the case?

Mr Derwent: I think it is just because they do not understand the notion that you can buy or sell emissions. It is astonishing how long it has taken us and how much effort we have had to put into trying to explain that this is a commodity market like any other commodity markets. On the whole, based on a regulatory obligation, clearly firms felt happier working out how they could meet that regulation, how they could reduce these emissions by their own actions on their own sites rather than looking round the market to see whether they can at a cheaper cost buy from someone else, or indeed whether they can reduce their emissions so much as to have something to sell to somebody else.

Q74 Mr Jenkins: If I quote from the Report on page 32, 3.28 it says: "It was rare for companies to contact brokers themselves, and when brokers made calls"—cold calling of 6,000 companies—"they often encountered resistance and even hostility," so the market is not working well, people do not understand it, and in fact the low price is resulting in a minimal level of market activity at the present time, with the typical volume being 500,000 tonnes and commission paid as low as 2%. In fact, for all the effort and all the work put into this, do you think that some of it may have been spent on publicity for this scheme to make sure it was better received by the people out there we were aiming it at?

Mr Derwent: The Report documents what we did in order to try and get more companies interested. I have said before that value for money does not relate to the number of companies who have participated but we wanted everybody to know what was going on and we had a genuinely sympathetic reaction. However, a lot of companies said, "Why should we volunteer to reduce our emissions? We do not know how much that will cost. It is a strange idea, we will see how it develops, we will not commit ourselves," but I do not think the market has been as thin, Mr Jenkins, as you suggest. We had over 2,000 transactions—seven million tonnes of CO_2—in the first year and 325 in the second, a much lower number but that is because of the way that accounts have to be settled in the Climate Change Agreement market—for a brand new market—and if I think of the way the Americans started off their sulphur dioxide and nitrogen oxide market—that is not bad.

Mr Jenkins: I think we differ on that.

Chairman: I think Mr Allan had a supplementary.

Q75 Mr Allan: I wanted to pick up another point which is almost the reverse of that, a concern that the market might take off. To go back to Sir Brian's point about the relationship between this and other schemes, is it likely that we might see firms like the Corus Group or BG Group buying in cheap tonnage from the Ineos Fluors and Invista UKs to meet their Climate Change Agreements and making a profit from the taxpayer purely on paper without doing any savings at all in terms of preventing gases getting into the atmosphere. Is that an economic possibility that we should be worried about?

Mr Derwent: The answer to that is yes, and that is why we accept that the methodology we have used has led to an oversupply in the UK market. It is difficult to be absolutely firm about that because some people are buying in order to bank in order to perhaps to cover emissions they know they are going to produce in the future, but this is the reason for the discussions with the firms concerned that Sir Brian has mentioned already. I would point out that all the emission reductions are valuable from the point of view of the atmosphere and global warming, and from the point of view of the achievement of the UK's domestic and international targets.

Q76 Mr Allan: If the surplus bit which it says in the Report would have been achieved anyway, all we have got effectively is one strand of government policy potentially undermining another strand of government policy in the Climate Change Agreements.

Sir Brian Bender: The risk is that it is being weakened which is why we are in discussion with the four companies to try and deal with that economic possibility.

Q77 Mr Allan: That would effectively be a share buy back, would it not? Presumably you are going to buy them off them, are you not?
Sir Brian Bender: Well, it is a voluntary scheme so we are going to try and persuade them but exactly what we will persuade them of we will have to wait and see what happens in the weeks ahead.

Q78 Mr Allan: If we look at some of the companies—Ineos Fluor £43 million, Invista UK £26.7 million, Shell UK £23.4 million (they probably need the money) BP £18.9 million—the question does remain that we have been giving large sums of public money to the biggest companies in the country which surely anyway would have done these emissions reductions anyway. These are the companies that can raise the money on the market to buy the upgraded equipment they need. You have not demonstrated at all, have you, that we are hitting the companies which we really need to be hitting, the small and medium enterprises, which are the ones who cannot afford to invest in cleaner technology?
Mr Derwent: Firstly, I hope we made the point that the companies involved in the auction were no more than a small segment of the total trading constituency, if you like. The Climate Change Agreement holders were by far the largest number of firms who were eligible to trade and should be regarded as "the market". However, I would not contest the notion that even Climate Change Agreement holders, all 6,000 of them, do not include small and medium sized enterprises; and one of the gimmicks of the auction was that in order to demonstrate that we wanted to go economy-wide in saving carbon we opened up the field to absolutely anybody, so the Natural History Museum came in and a few very small companies came into the auction. They liked the idea of it, it looked good in their annual reports, and it demonstrated to a much wider audience that there was something going on here which was interesting. There is a long way to go under the European scheme before it extends to small and medium companies. I hope personally that we will be able to push trading that far down before much longer.
Chairman: Mr Derwent and Sir Brian, that concludes our hearing. Clearly this was an innovative solution and I am quite anxious that Whitehall should not be deterred from uptaking innovative solutions by an initial glitch—because clearly there has been a glitch here in the way the baseline was set and auction was carried out. Full marks to you, Mr Derwent and Sir Brian, for trying!

Supplementary memorandum submitted by the Department for Environment, Food and Rural Affairs

Question 50 (Mr Allan): Penalties for non-compliance in UK Emissions Trading Scheme

1. If a Direct Participant fails to submit a proper verification opinion for a particular year, then the participant's emissions for the year in question are taken to be his baseline, and he does not receive any allowances for the following commitment year.

2. Where there is a failure to comply with the UK Scheme rules in any other way (for example, by failing to comply with the monitoring, reporting and verification requirements), then the Secretary of State may impose a range of penalties, depending upon the seriousness of the breach. The penalties include the power to declare the statement of emissions to be invalid, to refuse to pay the incentive payment for the year in questions, and to refuse to allocate any allowances for the following year.

3. Further, if any Direct Participant fully withdraws all sources from the UK Scheme before the end of 2006, they must repay *all* incentive money received since the beginning of the Scheme.

4. Rules G(2)-(11) of the UK Emissions Trading Scheme Rules for publicising non compliance, provide that if, in any one commitment year, a Direct Participant failed to have sufficient allowances to cover its annual emissions, then the Secretary of State would be under an obligation to publish that fact, along with the extent to which the Direct Participant has failed to comply.

5. Until the end of 2004, failure to have sufficient allowances at reconciliation in any year to cover emissions, could result in a loss of incentive payment for that year whilst the allocation for the following year would be reduced by 1.3 allowances for every tonne of emissions in excess of allowances held.

6. From 2005 onwards, any Direct Participant who fails to retire a number of allowances equal to or greater than his verified emissions will be subject to the following penalties. The Participant will be required to pay a financial penalty of £30 (approximately €45 equivalent) for each tonne of CO2e in excess emissions. This is greater than the penalty of €40 per tonne payable under the EU ETS.

7. In addition, Direct Participants will not receive any incentive payment for the year in question (which is a considerable financial incentive to comply) and the number of allowances allocated for the following year is reduced by the amount of excess emissions.

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