Global warming: policy responses

Research Paper 95/86

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In March 1995, the first Conference of the Parties to the Climate Change Convention was held in Berlin. This paper describes the outcome of the meeting together with recent policy initiatives in the EU and UK.

This paper accompanies Library Research Paper 95/85 on *Global warming: environmental and economic effects* and POST Briefing Note 61 on *Global Warming - the State of the Science*.

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CONTENTS

A. Introduction

In June 1992, following international concern about global warming, the Climate Change Convention was adopted at the Earth Summit in Rio de Janeiro. The Convention has since been ratified by 137 states[1]. This required developed countries to adopt polices aimed at returning carbon dioxide and other greenhouse gas emission to their 1990 levels by the end of the century.

The Convention came into force on 21 March 1994, 90 days after it had been ratified by the fiftieth state, and the first meeting of the parties to the Convention was held in Berlin at the end of March and beginning of April 1995. The Berlin Conference was held to review the adequacy of the commitments contained within the Convention in the light of "best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic information". Section B of the paper reviews the terms of the Convention, describing the policy responses of the international community and the results of the Berlin Conference. In short, the Conference could not reach an agreement on stabilisation or reductions in future emissions, and instead it decided that an agreement would be made by 1997 on the need for further action

The European Union has ratified the Convention as whole as have all the individual Member States apart from Belgium. In order to meet the terms of the Convention there has been some joint action in areas such as energy efficiency, but Member States have failed to reach agreement on an EU-wide carbon-energy tax. Further information on this is provided in Section C of the paper.

The UK first set out its views on the national programme required to reduce carbon dioxide emissions in a consultation paper in December 1992. Following an Addendum in April 1993, the UK published its national programme, as required by the Climate Change Convention, in January 1994. Details of this can be found in section D.

This paper accompanies Library Research Paper 95/85 on *Global Warming: Environmental and Economic Effects* and POST Briefing Note 61 on *Global Warming - the State of the Science*.

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[1] *Source:* UNEP World Wide Web Server @ http://www.unep.ch

B. The Climate Change Convention

1. Introduction

The United National Framework Convention on Climate Change was agreed at the Rio Earth Summit in May 1992[2]. Article 2 states that:

> "The ultimate objective of this Convention...is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic [man made] interference with the climate system. Such a level should be reached within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner."

Amongst other objectives, the Convention requires all parties, both developed and developing countries, to:

> "Formulate, implement, publish and regularly update and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases...and measures to facilitate adequate adaption to climate change;
>
> "Take climate change considerations into account, to the extent feasible, in their relevant, social, economic and environmental polices and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change."

For developed countries, the Convention contains the target of returning carbon dioxide emissions to 1990 levels by the year 2000. The precise text specifies that developed countries:

> "4.2a ...shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases... These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing that the return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases...would contribute to such modification...
>
> "4.2b In order to promote progress to this end, each of these Parties shall communicate...detailed information on its policies and measures...for the period referred to [above]... with the aim of returning individually or jointly to their 1990 levels these anthropogenic emissions of carbon dioxide and other greenhouse gases..."

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[2] *United National Convention on Climate Change* 9 May 1992 Treaty Series No. 28 (1995) Cm 2833 April 1995

Environmental groups have criticised the Convention because it does not contain a legally binding requirement for countries to stabilise carbon dioxide emissions at 1990 levels by the year 2000. Instead, the Convention commits developed countries to adopting national policies and measures aimed at returning anthropogenic emissions of carbon dioxide and other greenhouse gases to their 1990 levels by the end of the century. The draft version of the Convention did originally contain a legally binding commitment, but this was removed at the insistence of the USA[3].

As far as developing countries are concerned, the Convention states that:

> "The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.
>
> "The Parties shall...take into consideration in the implementation of the commitments of the Convention the situation of Parties, particularly developing country Parties, with economies that are vulnerable to the adverse effects of the implementation of measures to respond to climate change. This applies notably to Parties with economies that are highly dependent on income generated from the production, processing and export, and/or consumption of fossil fuels and associated energy-intensive products and/or the use of fossil fuels for which such Parties have serious difficulties in switching to alternatives."

The Convention closed for signature on 19 June 1993, by which time 166 countries had signed it. Since then 137 states have ratified it. As required by the Convention, the first Conference of the Parties took place in Berlin from 27 March to 7 April 1995, one year after the Convention came into force on 31 March 1994. The purpose of the Conference, as set out in the Convention was to "review the adequacy" of the commitments contained within the Convention in the light of "best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic information"[4].

2. The Berlin Conference

Prior to the Berlin Conference, a number of preparatory meetings were held by the Intergovernmental Negotiating Committee (INC). The Committee was established under the Convention to undertake the work necessary for the Conference. At their last meeting before the Conference, in February 1994 at New York, the INC failed to reach agreement on measures to be adopted at Berlin.

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[3] See Library Reference Sheet 92/6 on *The Earth Summit* 12 May 1992

[4] Article 4.2(d)

The environmental journal *ENDS Report* commented that[5]:

> "... negotiators failed even to set a timetable or terms of reference for discussing commitments to reduce greenhouse gas emissions beyond 2000. This was despite a consensus that the present commitments are inadequate to meet the Convention's ultimate objective: 'to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'."

The debate at the meeting focused on the proposals from the Association of Small Island States (AoSIS) that CO_2 emissions should be cut by at least 20% by 2005. It would appear that this proposal divided both developed and developing countries. *ENDS Report* commented [ibid]:

> "... the EC failed at the INC meeting to persuade other parties to the Convention to reach a decision on negotiating further commitments. OECD countries are divided about the AoSIS proposal to cut CO_2 emissions by at least 20% by 2005. None wants to go any further than a 20% reduction, but many do not want to go as far.
>
> "The AoSIS proposal has also divided developing countries. Many are sensitive to any suggestion of introducing further commitments under the Convention. At the moment this only requires developed nations to aim to stabilise emissions on the grounds that they contribute the lion's share of emissions. But they are aware that the OECD has its eyes on the rapidly growing emissions from developing countries undergoing industrialisation."

At the Berlin Conference itself, Parties were unable to reach agreement on where further targets should be set, let alone on what targets might be suitable. Instead, the conference decided that an agreement would be made by 1997 on the need for further action to reduce emissions of greenhouse gases after 2000[6].

Extracts from the formal agreement reached at the Conference, known as the Berlin Mandate, are set out below[7]:

> The Conference of the Parties, at its first session, having reviewed Article 4, paragraph 2 (a) and (b) and concluded that these are not adequate, agrees to begin a process to enable it to take appropriate action for the period beyond 2000, including the strengthening of the commitments of Annex I [developed country] Parties in Article 4, paragraph 2 (a) and (b), through the adoption of a protocol or another legal instrument.

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[5] "Climate Change talks gridlocked" *ENDS Report* February 1995 p.41
[6] "First Climate conference agrees further talks on emission cuts" *ENDS Report* April 1995 pp 43-44
[7] FCCC/CP/1995/L.14, *Conclusions of outstanding issues and adoption of decisions* 7 April 1995

I

1 . The process shall be guided, inter alia, by the following:

(a) The provisions of the Convention...that..."The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof";

(b) The specific needs and concerns of developing country Parties...; the specific needs and special situations of least developed countries...

(c) The legitimate needs of the developing countries for the achievement of sustained economic growth and the eradication of poverty, recognizing also that all Parties have a right to, and should, promote sustainable development;

(d) The fact that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that the per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs;

(e) The fact that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions;...

II

2. The process will, inter alia:

(a) Aim, as the priority in the process of strengthening the commitments in Article 4.2 (a) and (b) of the Convention, for developed country...Parties..., both

- to elaborate policies and measures, as well as
- to set qualified limitation and reduction objectives within specified time-frames, such as 2005, 2010 and 2020, for their anthropogenic emissions by sources and removals by sinks of greenhouse gases...

taking into account the differences in starting points and approaches,, economic structures and resource bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances, as well as the need for equitable and appropriate contributions by each of these Parties to the global effort...

(b) Not introduce any new commitments for Parties not included in Annex I, but reaffirm existing commitments in Article 4.1...

III

3. The process will be carried out in the light of the best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic information, including, inter alia, IPCC reports[8]. It will also make use of other available expertise.

4. The process will include in its early stages an analysis and assessment, to identify possible policies and measures for Annex I Parties which could contribute to limiting and reducing emissions by sources and protecting and enhancing sinks and reservoirs of greenhouse gases. This process could identify environmental and economic impacts and the results that could be achieved with regard to time horizons such as 2005, 2010, and 2020.

5. The protocol proposal of the Alliance of Small Island States (AOSIS), which contains specific reduction targets and was formally submitted in accordance with Article 17 of the Convention, along with other proposals and pertinent documents, should be included for consideration in the process.

6. The process should begin without delay and be conducted as a matter of urgency, in an open ended ad hoc group of Parties hereby established, which will report to the second session of the Conference of the Parties on the status of this process. The sessions of this group should be scheduled to ensure completion of the work as early as possible in 1997 with a view to adopting the results at the third session of the Conference of the Parties [later that year].

Although the Conference did not come to firm decisions on future reductions some commentators have seen it as a success given that an agreement was reached despite the disparate views of the contracting parties. These differences were considerable, and were concisely summarised in an article in *The Independent*[9]:

The USA, Canada, Australia - The foot draggers. Unlikely to meet the target of holding annual emissions at the 1990 level by 2000. They say the Third World must limit its rising emissions as part of any deal.

The European Union - It wanted the developed countries to agree to cut emissions between the years 2000 and 2010 [for further details see Section B.1].

The Group of 77 - Third World Countries. They wanted the rich world to promise to curb 'greenhouse gas' emissions while making no commitment to limit their own rapidly rising pollution. So far, they point out, the great majority of the emissions have come from developed countries.

Organisation [sic] **of Small Island States** - They fear more violent tropical storms. Some may disappear under rising sea levels. They wanted developed countries to cut their emissions of carbon dioxide, the most important greenhouse gas, by 20 per cent by 2005.

The Leading Oil Exporting States - Hawks in the greenhouse who see any action to curb emissions as a threat to their economic lifeblood: oil exports. Came to Berlin keen to frustrate any new commitments.

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[8] Details of the scientific assessments of global warming published by the Inter-governmental Panel on Climate Change (IPCC) can be found in the accompanying Library Research Paper 95/85.

[9] "Way cleared towards greenhouse gas targets" *The Independent* 8 April 1995 p.8

In the end the decision was accepted unanimously[10] although Kuwait, Saudi Arabia and Venezuela placed formal reservations on the decision and several other states expressed antagonism towards it[11].

In the UK, the Secretary of State for the Environment, John Gummer, welcomed the agreement[12]:

> "The Berlin mandate was achieved on the European Union terms brokered by the United Kingdom. Britain set the scene by announcing that it believed reductions in greenhouse gases of between five and ten percent were achievable and credible...
>
> "Now Germany, Holland and Denmark have also signed up to specific reductions beyond 2000 and now that the United States and Canada, as well as other major players have signed up to the need for reductions, it will be for Britain and the European Union to make them deliver.
>
> "For the first time significant developing countries have recognised that they need to play an increasing part in solving what is a world problem."

The Berlin Conference also came to a decision on 'joint implementation' programmes. The journal *Nature* reported[13]:

> "The conference also became polarized over the issue of 'joint implementation', a reference to projects designed to reduce global levels of greenhouse gases which are financed by one country but carried out in another.
>
> "The United States wants a credit system under which such an investment by an industrial country in a developing country - for example, by providing clean energy technology or planting forests to act as carbon sinks - would count towards the former's efforts at reducing emissions.
>
> "But many developing counties see this as a way by which industrial countries could avoid domestic responsibility. They also argue that their own rate of development would be hindered by having to use fuel sources that are less efficient than the fossil fuel sources that the United States would be free to continue burning. As the major polluters, these countries argued, industrial countries should bear the full cost of lowering greenhouse emissions."

In the end, delegates did agree on a pilot phase for joint implementation projects. However, the countries which provide investment to developing countries will not be able to count any consequent reductions in emissions against their own domestic emissions during the pilot phase.

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[10] "Don't stop talking about tomorrow..." *New Scientist* 15 April 1995 p.4
[11] "First climate conference agrees further talks on emission cuts" *ENDS Report* April 1995 pp 43-44
[12] "World Climate Summit in Berlin" *DOE News Release 95/194* 7 April 1995
[13] "Meeting agrees on need for new targets..." *Nature*

A second Conference of the Parties is currently scheduled for July 1996[14], with the third Conference to be held the following year in 1997.

[14] "Ministers Adopt 'Berlin Mandate' Launching New Climate Change Talks" *UN Climate Change Press Release* 7 April 1995

C. European Union policy

The EU's policy on global warming had focused on three main issues: the Climate Change Convention; a carbon/energy tax; and an overall climate change strategy.

1. Climate Change Convention

The EU has ratified the Climate Change Convention in addition to the individual Member States (apart from Belgium), and originally agreed to stabilise carbon dioxide emissions in the Union as a whole at 1990 levels by the year 2000 provided that non-EU developed countries made similar commitments. The commitment to stabilise emissions by 2000, ie not to exceed 1990 levels after 2000, obviously goes further than the Climate Change Convention which merely refers to returning emissions to 1990 levels by 2000 rather than stabilising them at 1990 levels. This policy dates back to an agreement reached at an Environment Council meeting on 29 October 1990[15].

> 6. EC Member States and other industrialized countries should take urgent action to stabilize or reduce their CO_2 and other GHG emissions. Stabilization of CO_2 emissions should be in general achieved by the year 2000 at 1990 level, although the Council notes that some Member countries according to their programmes are not in a position to commit themselves to this objective. In this context countries with, as yet, relatively low energy requirements, which can be expected to grow in step with their development, may need targets and strategies which can accommodate that development, while improving the energy efficiency of their economic activities.
>
> 7. The European Community and Member States assume that other leading countries undertake commitments along the lines mentioned above and, acknowledging the targets identified by a number of Member States for stabilizing or reducing emissions by different dates, are willing to take actions aiming at reaching stabilization of the total CO_2 emissions by 2000 at 1990 level in the Community as a whole. Member States which start from relatively low levels of energy consumption and therefore low emissions measured on a per capita or other appropriate basis, are entitled to have CO_2 targets and/or strategies corresponding to their economic and social development, while improving the energy efficiency of their economic activities.
>
> 8. With the aim of achieving this, the Council notes that...the Commission intends to propose by the end of 1990 appropriate options and measures based on equitable burden sharing taking into account the potential and constraints for CO_2 reductions as well as present situation of emissions in Member States in order to facilitate a coordinated participation of Member States.

In preparation for the Berlin conference, the Environment Council discussed the Climate Change Convention at the end of December 1994. The Council concluded that "the stabilization of CO_2 emissions as set out in its conclusions of 29 October 1990 as a necessary

[15] Energy/Environment Council meeting Press Release 9482/90 29 October 1990.

step towards effective climate protection"[16]. It called on the Commission to submit "a set of options in terms of polices and measures to be taken at Community level and by Member States and the resulting emissions for the European Union as a whole, aimed at progressive limitations and reductions of CO_2 and other greenhouse gases by 2005 and 2010". As far as the Berlin Conference was concerned the Council agreed the following negotiating position:

> "The Council stresses the need to review the commitments contained in Article 4.2.a and b of the Framework Convention on Climate Change (FCCC). It considers these commitments aimed at returning greenhouse gas emissions to their 1990 levels by the year 2000 to be inadequate to achieve the ultimate objective set out in Article 2 of the Convention to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The Council takes the view that these commitments must be strengthened and extended in order to combat adverse effects on the climate...
>
> "The Council notes that the Framework Convention on Climate Change does not contain a commitment on stabilization but only to adopt policies and take measures with the aim of returning individually or jointly greenhouse gas emissions to their 1990 levels by the year 2000. The Council calls upon the other Annex I Parties [developed countries] also to commit themselves at the Conference of the Parties in Berlin to stabilizing their CO_2 emissions individually or jointly at 1990 level by the year 2000, i.e. at least not to exceed this level after 2000."

The Council discussed the conference again at a meeting on 9 March 1995. It confirmed the conclusions it reached at the last meeting in December 1994[17]:

> "It [the Council] reiterates its view that commitments to reduce greenhouse gases to their 1990 level by the year 2000 are insufficient to achieve the ultimate objective laid down in Article 2 of the Convention . It therefore considers Article 4(2)(a) and (b) of the Convention to be inadequate."
>
> "The Council reaffirms the European Union's determination to meet its existing commitments and to take such additional measures as may be necessary to achieve this, and urges all other Annex I Parties to do the same.
>
> "The Council, confirming its conclusions of 29 October 1990 inter alia to stabilize CO_2 emissions in the Community as a whole at 1990 levels by the year 2000, calls upon the other Annex I Parties also to commit themselves to stabilizing their CO_2 emissions individually or jointly at 1990 level by the year 2000, i.e. at least not to exceed this level by 2000.
>
> "INC11[18] acknowledged the commitments in Article 4(2)(a) and (b) to be only a first step on the way to the Convention's ultimate objective and the need of their review at the first Conference of the Parties. The Council would emphasize that the second stage begins as of the year 2000, since the present commitments make no provision for the period after that date."

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[16] Environment Council Press Release 11870/94 15 and 16 December 1994
[17] EU Environment Council of 9 March 1995 *Europe Environment* 4 April 1995 pp 5-8
[18] See p.6 above.

2. Original carbon tax proposals

At its meeting in December 1994 the Environment Council discussed the issue of a Community-wide carbon/energy tax. The proposal for such a tax dates back to 1991 and it had been the most controversial element of the EU's climate change strategy. The original proposal was for a mixed energy and carbon tax, with 50% being levied on the level of CO_2 emissions produced by the fuel (ie. its carbon content) and 50% on the energy (calorific) value of the fuel[19]. Large scale exemptions were proposed for energy intensive industries, and it was proposed that the EU would only go ahead with the tax if other industrialised countries adopted similar measures. The tax was very strongly opposed by the UK, while the Southern European states of Greece, Ireland, Portugal and Spain were only in favour if burden sharing mechanisms were introduced so that they, as less developed countries, could still increase their CO_2 emissions. Such proposals were introduced on the basis that countries with lower than average emissions per head of population would be exempted from the tax. However, the proposal being of a fiscal nature required unanimity within the European Council, and so could not proceed without the UK's consent. In a recent report on *Climate Change and Energy Use* the European Parliaments technology assessment body, STOA, commented:

> "The European Parliament and the Economic and Social Committee have both supported the tax proposal. Nonetheless, the prospects for the tax have not been bright, since the governments of only six countries (Germany, Denmark, Belgium, Netherlands, Luxembourg, Italy) have pronounced themselves clearly in favour of introducing it. These six countries consider the tax necessary to achieve the joint stabilisation target, and in some cases to reach their own national target. The Netherlands and Belgium have recently announced that unless there is progress on the CO_2/energy tax proposal at the Community level, they will introduce unilateral taxes. They hope that their main trading partners, Germany, Luxembourg and France, will join them. France supports the principle of the tax, but at the same time continues to question the need for an energy component.
>
> "The United Kingdom, however, has fundamentally opposed the tax on the ground of the principle of subsidiarity in matters of taxation. The UK objects to the introduction of any tax measure through the European Community and its Commission, maintaining that fiscal instruments are not appropriate on an EU-wide basis. Popular and political opposition to an extension of VAT on domestic fuels in Britain, and the British Parliament's rejection of increasing such taxes illustrate how difficult it would be for a British government to push through a rise of energy taxation--especially one initiated by the European Community. Remaining Member States did not explicitly profess their unwillingness to introduce a tax, but let the UK take the lead in opposing the tax."

At the December meeting the Environment Council agreed that "an increase in energy prices by applying fiscal instruments will as a rule make an efficient contribution to improving energy efficiency and to limiting and reducing CO_2 emissions". It went on to note the

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[19] *Proposal for a Council directive introducing a tax on carbon dioxide emissions and energy* EC draft 7018/92 30 June 1992

Presidency's conclusion of the European Council summit in Essen, held earlier that month[20], which stated:

> "The European Council has taken note of the Commission's intention of submitting guidelines to enable every Member State to apply a CO_2/energy tax on the basis of common parameters if it so decides".

In other words the Commission abandoned proposals to introduce a European wide carbon tax. Instead the Council proposed that further discussions on the issues should take place, taking into account:

- the use of existing excise tax structures and possibilities for including other energy sources in taxation;
- possibilities for gradual entering into force of such taxation for private households, small-scale consumers, transport as well as for the industrial sector, with the objective to avoid possible impacts on competitiveness with other OECD countries;
- dynamization of tax from the outset to create anticipatory effects (pre-determined gradual increase of tax rates);
- options for specific provisions (e.g. crediting and offsetting schemes) for cases of efficient investment projects to reduce CO_2 emissions and to improve efficiency;
- possibility for addressing the issue of different fiscal aspects as well as economic and environmental situations in Member States on the basis of objective criteria by a framework for arrangements for certain Member States covering all or specific sectors taking into account the conclusions of the Council of 29 October 1990.

3. EU's future climate change strategy

The December 1995 Environment Council called for the Commission to produce a paper on the EU's future climate change strategy. Ministers asked for this strategy in order "to assess whether progress in the European Union is sufficient to ensure fulfilment of the Community commitment" and to make, "if necessary, appropriate proposals ... to achieve stabilisation of CO_2 emissions in the European Union as a whole". It underlined the fact that the target of stabilization could only be achieved "by a coordinated package of measures to improve energy efficiency and the rational use of energy which are based on supply and demand at all levels of energy production, conversion, transport and consumption and to exploit renewable energies". In particular the Council took note of existing energy efficiency schemes such as SAVE, THERMIE, JOULE and ALTNER. Further details of these can be found in Library Research Paper 95/5 on *The Home Energy Conservation Bill.*

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[20] 9-10 December 1995

The Commission's *Working Paper on the EU Climate Change Strategy* was submitted to the Council on 1 March 1995[21]. It outlined a set of options for limiting Co_2 emissions beyond the year 2000 to 2005 or 2010. In a preface to the Paper the Commission commented:

> "Currently analyses indicate that with prevailing expectations concerning energy prices and economic growth, the EU could fall short of its stabilisation commitment by 5% to 8%. The Commission underlines, therefore, the very importance of reaching this objective. It will requires a more vigorous implementation of current Community and Member State programmes."

The paper concentrated on strategies for after 2000, but the Commission underlined the importance of reaching the 2000 objective of stabilisation commenting:

> "New measures taken at the Community level, because of the time required for the proposals to be elaborated, agreed by the Council and implemented by the Member States, will only have a limited impact on the year 2000 emissions. Therefore, at this stage, **assurance for achieving the Community stabilisation objective, rests with the implementation of current national and Community programmes**."

The paper then went on to outline the six main policy options:

1. Changing market structures: completing the internal market of energy.
2. Removing barriers to energy efficiency improvements and to penetration of renewables.
3. Transport: changing market structures, improving vehicle efficiency and fostering behavioural change.
4. Fiscal instruments: integrating environmental concerns in the fiscal system
5. New technologies and RTD [Research and Technological Development]
6. External relations [including co-operation with non-union countries]

The paper reached the conclusion that 5 to 10% reductions of CO_2 emissions might be possible by 2005-2010:

> 1. There is a window of opportunity to reduce CO_2 and other greenhouse gas emissions. *Technical Options* are available which could in principle achieve the stabilisation of CO_2 emissions in a cost-effective way throughout the period 2000-2010. Beyond the stabilisation, a technical potential exists to reduce CO_2 emissions by up to 10% in 2010. It could prove to be cost-effective, provided secondary benefits are taken into account, in terms of energy security, reduction of air pollution, sustainable mobility as well as competitiveness and employment. in line with recommendations of the Commission White Paper.

[21] *Working Paper on the EU Climate Change Strategy* SEC(95)288

2. *Policy Options* proposed in this document should, therefore, be developed, with a view to allow achievement, beyond the CO_2 stabilisation of 2000, of reductions of 5 to 10% in the time frame of 2005-2010. These figures cannot, however, be considered as targets or commitments, because such reductions can only be achieved if there is a political will to adopt a wide-ranging package of complementary measures, for which a detailed economic evaluation, including cost-effectiveness analysis, still needs to be undertaken.

3. The main elements for a coherent strategy are largely known - innovation (RTD), energy efficiency, more sustainable transport system, taxation reform and cooperation with third countries. The goal of integrating CO_2 abatement options into sectoral policies at Member State and Community level needs, therefore, to be pursued. Required is an involvement of - and cooperation between - different actors, Community institutions, Member State authorities (national, regional and urban), the international community and the economic actors in view of implementing an efficient strategy.

On publication of this working paper, the journal *Europe Environment* commented that[22]:

> "The European Union's contribution to the Berlin Conference on climate change...looks like being pretty meagre. On March 1, the European Commission - impeded by the Member States' repeated refusal to move towards its proposal for a common CO_2 tax - was restricted to presenting a working paper, setting out a 'series of options', including fiscal instruments, on the EU's climate change strategy. The Commission will not now be in a position to present the now notorious 'common framework' intended to enable Member States that so wish, to introduce an energy/CO_2 tax unilaterally until after the Berlin Conference...
>
> "...The working paper...represents a preliminary analysis of the strategic options that should be considered for the limitation of CO_2 emissions in the perspective of 2005-2010. The paper...will be discussed by Ministers when they next meet on March 9. However, one Commission official predicted, '*the Environment Council will do precisely nothing, since the Heads of State and Government gave their instructions at the Essen Summit'* at the highest political level and the consensus was largely a national solution."

4. New Commission proposal on carbon tax

On 10 May 1995, the Commission finally adopted a new proposal on an EU carbon tax[23,24]. The new proposal gives Member States the flexibility to decide for themselves whether they should implement a carbon/energy tax within a harmonised fiscal framework. This framework is based on the harmonised system for excise duties introduced across the EU on 1 January 1993. Member States will be free to decide what rate of duty to apply but it will have to be based on a 50:50 carbon/energy content split as before. The draft directive does put forward a set of target rates towards which Member States should endeavour to make their rates converge. The intention is that Member States should be free to set out their own rates

[22] "Climate Change: Commission tables 'working paper' on CO_2" *Europe Environment* 7 March 1995 pp 4-5
[23] "Energy/CO_2 Tax Commission amends its 1992 proposal" *Europe Environment* 23 May 1995
[24] Agence Europe 11 May 1995 pp 6-7

during a transitional period from 1 January 1996 to 31 December 1999. Thereafter the Commission proposes a harmonised tax should be introduced across the EU.

The draft directive requires the Commission to prepare a report by 31 December 1998 on the implementation of the directive accompanied by "appropriate proposals on the rules for the application of harmonised rates of tax on carbon dioxide and energy". It states that such proposals:

> "...shall in particular take account of the need to safeguard the competitiveness of Community industries and ensure that the tax does not reflect an increase in the overall tax burden. Before 1 January 2000, the Council, acting unanimously on a proposal from the Commission, shall, after examining the Commission report and consulting the European Parliament, adopt the measures necessary for the introduction of harmonised rates of tax in the Community"

The new proposal was briefly discussed at the EU Finance Ministers Council (ECOFIN) on 22 May. The journal *Europe Environment* reported that "a measure of scepticism was expressed over the new proposal's capacity to resolve the question of stabilising CO_2 emissions in the European Union[25]:

> "EU Finance Minsters agreed to entrust detailed examination of the new proposal to 'competent working parties', Ministers gave a mixed reception to the statement by Mario Monti, the European Internal Market Commissioner, outlining the Commission's newly-amended proposal put forward on May 10. The most supportive Ministers were those from Denmark, Italy and Germany, who went out of their way to congratulate the Commission, while the UK, and to a lesser extent France, expressed reservations, once again highlighting the potential damage the introduction of such a tax may do to the competitiveness of European industry. The debate has been relaunched but looks likely to spend a considerable time on the Council table. But some movement can be expected at the Environment Council on June 22 and 23, which will also tackle the new proposal".

The Environment Council did discuss Climate Change at its meeting on 22-23 June 1995. Agence Europe reported[26]:

> "Minster adopted conclusions on the Community strategy for Climate Change, which follows on the United Nations Conference in Berlin 28 March - 7 April and the document on the strategic options presented by the Commission on the eve of this conference. The Council recalls the decision to bolster European commitments beyond the year 2000 by preparing (before January 1997) a protocol or other legal instrument setting target figures for the

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[25] "Energy/CO_2 Tax: Reserved welcome from EU Fiance Minsters" *Europe Environment* 13 June 1995 pp 22-23
[26] *Europe* NO 6508 24 June 1995 p.7

reduction of greenhouse gas emissions; recalls its conclusions of 9 March (concerning the stabilization of CO_2 emissions by the year 2000 at their 1990 level throughout the Community); invites the Commission to convey to it as soon as possible the projection of greenhouse gas emissions by the year 2000; invites the Commission to specify its proposals and invites Member States to report on the measures and objectives which they are planning to adopt for the period 2005-2010.

D. The UK's Climate Change Programme

1. Introduction

In December 1992 the Government published a consultation paper on a national plan for reducing carbon dioxide emissions (as required by the Climate Change Convention)[27]. Further details of this and the measures the Government initially proposed as part of the plans can be found in Library Research Paper 93/106 on *Carbon Taxes and Global Warming*.

The consultation document stated that the UK needed to reduce its CO_2 emissions by 10 million tons of carbon (MtC) per annum to meet its target of stabilising emissions at their 1990 level by the year 2000. This figure was based on predictions of future CO_2 emissions made by the DTI in its *Energy Paper 59*[28]. This paper made a number of different predictions for future CO_2 emissions depending on the rate of future economic growth and future fuel prices[29]:

Future UK CO_2 emission scenarios					
Growth	**Prices**	**1990**	**2000**	**2005**	**2020**
Low	Low		165	178	202
Low	High		157	166	188
Central	Low	160	170	183	221
Central	High		162	170	208
High	Low		179	201	285
High	High		169	189	267

The figure of 10 MtC for the required savings was therefore based on the central growth, low fuel prices emission scenario which predicted 170 MtC of emissions in 2000 as opposed to 160 MtC in 1990.

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[27] DOE *Climate Change: Our National Programme for CO_2* December 1992
[28] DTI *Energy Paper 59: Energy related Carbon Emissions in Possible Future Scenarios for the United Kingdom* 1992
[29] Cm 2427

2. The original Climate Change Programme

Following the consultation paper, the Government published its report on *Climate Change: The UK Programme* as required under the Climate Change Convention in January 1994[30]. This described Government policy initiatives not just for reducing carbon dioxide but other greenhouse gases: methane, nitrous oxide, tropospheric ozone (not the stratospheric ozone layer), nitrogen oxides, volatile organic compounds (VOCs), carbon monoxide, halocarbons, perfluorocarbons. As far as carbon dioxide is concerned, the report identified 10 MtC of savings in four sectors: home energy consumption; business energy consumption; public sector energy consumption; and transport. The different measures within these sectors were set out in Figure 3e of the report and is reproduced on the opposite page.

Although the table does not describe the savings brought about by individual measures within a sector, some further information is contained within the text of the report itself. For instance, VAT on domestic fuel (at 17.5%) was expected to save 1.5 MtC, and the Energy Saving Trust was expected to save 2.5 MtC in total.

Since the report was published a number of the measures have run into difficulty. For instance, the second rise in VAT on fuel from 8% to 17.5% due in April 1995 was defeated by a vote in the House on 6 December 1994[31]. In addition, the Energy Saving Trust has ran into financing difficulties following the refusal of the Gas Regulator, Clare Spottiswoode to allow a levy on gas bills to provide funds for the Trust. This issue is examined in greater depth below.

3. *Energy Paper 65* and new projections for carbon dioxide emissions

As a result of these charges, in March 1995 the Government announced further details of the savings to be expected from the National Programme[32]. In particular, this included new estimates from the DTI on future carbon dioxide emissions. The revised emission figures were published in *Energy Paper 65: Energy Projections for the UK*[33]. These showed that even without a climate change programme CO_2 emissions are expected to fall by the year 2000 when compared to their 1990 levels (under the central growth, low fuel prices scenario). Details are shown in the table overleaf.

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[30] Cm 2427
[31] HC Deb 6 December 1994 cc 159-247
[32] HC Deb 6 March 1995 cc 191-4W and cc 245-7W

[33] Sub-titled: Energy Use and Energy-Related Emissions of Carbon Dioxide in the UK, 1995-2020

Summary of CO_2 savings	
Sector	**Expected reduction in emissions by 2000, MtC**
Energy consumption in the home	**4**
- introduction of VAT on domestic fuel use [at 17.5%]	
- new Energy Saving Trust	
- energy efficiency advice/information including Helping the Earth Begins at Home publicity	
- eco-labelling	
- EC SAVE programme (standards for household appliances)	
- revision of Building Regulations to strengthen energy efficiency requirements	
Energy consumption by business	**2.5**
- energy efficiency advice/information: Making a Corporate Commitment Campaign; Best Practice Programme; Regional Energy Efficiency Offices; Energy Management Assistance Scheme	
- Energy Saving Trust schemes for small businesses	
- Energy Design Advice Scheme	
- possible EC SAVE programme (standards for office machinery)	
- revision of Building Regulations to strengthen energy efficiency requirements	
Energy consumption in the public sector	**1**
- targets for central and local government and public sector bodies	
Transport	**2.5**
- increases in road fuel duties and commitment to real increases of at least 5% on average in future Budgets	
Total	**10**

* Savings in the electricity generating sector have been allocated to final users (including encouragement of renewables and CHP [Combined Heat and Power]).

This table is intended as a summary of key measures. Allowance has been made for overlap between some of the individual programmes.

Source: Climate Change: The UK Programme, Cm 2427

Energy Paper 65: Future UK CO_2 emission scenarios					
Growth	**Prices**	**1990**	**2000**	**2005**	**2020**
Low	Low		147	157	171
Low	High		144	154	173
Central	Low	158	150	162	184
Central	High		148	159	188
High	Low		152	165	193
High	High		151	163	197
Energy Paper 59 ranges		158*	156-178	172-227	186-283

* *Energy Paper 59* actually used the figure of 160 MtC for emissions in 1990, but this has now been adjusted to 158 MtC for technical reasons.

The paper stated that CO_2 emissions have been falling in recent years, giving the following reasons:

> "The relatively warm winters of 1992-1994 have contributed to lowering the level of emissions in these years. The effect of the economic recession has also reduced energy demand, which in 1994 was only marginally above its 1990 level. The gradual increase in energy demand in 1993 and 1994 has been mainly based on fuels with zero, low or medium carbon contents, ie. gas, oil and nuclear, with coal demand down by around 25% since 1990, mainly due to lower use of coal in the ESI [Electricity Supply Industry]."

The paper also gave reasons for the reduction in the projected emissions as compared with the earlier *Energy Paper 59*:

> "7.24 Primary energy demand increases gradually in all scenarios. As has been pointed out in earlier sections of this report, the growth in demand for energy is now expected to be rather less then in EP59, particularly in the high economic growth cases. The reduction in energy demand cuts projected emissions directly. In the high economic growth cases, it is the reduction in energy demand projections compared with EP59 which is the main cause of the reduction in projected carbon emissions. In the central and low growth cases, the reasons for the reduction in estimated emissions varies according to price scenario. In low price scenarios, there is less carbon intensive fuel mix, due to gas displacing oil and coal. In the high price scenarios, the fuel mix is not dissimilar from those in EP59, but there is rather less energy demand in total.
>
> "7.25 Lower ESI emissions account for the bulk of the overall change. ESI emissions are lower due to increased gas penetration in the short term (to 2000) and in the longer term, to lower electricity demand in total and also the impact of a growing amount of own-generation within industry and, to a degree, services..."

The paper contained revised estimates of the savings that could be achieved by the Climate Change Programme. Under the central growth, low fuel prices scenario, the paper estimates the Programme would save 8.1 MtC if the Energy Saving Trust (EST) achieved its original target in full (1.6 MtC) or 6.8 MtC if the Trust only achieved savings from the schemes it currently has funding for (0.3 MtC).

Energy Paper 65: Future UK CO_2 emission scenarios

Growth	Prices	Climate Change programme included ?	1990	2000	Savings from Programme
Central	Low	No	158.3	157.8	8.1
Central	Low	Yes	158.3	149.7	
Central	High	No	158.3	157.2	8.8
Central	High	Yes	158.3	148.4	

The paper makes the following comments on the reduction in the savings which the Programme is expected to achieve:

> "This means that in the projections the carbon saving attributable to the CCP [Climate Change Programme] are 1-2 MtC lower than those originally anticipated when the CCP was published [assuming the EST still saves 1.6 MtC rather than the 0.3 MtC expected on current finding levels]. This is because some of the measurers have been changed (eg. VAT on domestic energy at 8%) and because the properties of the current projection models (fuel mix, underlying fuel prices, price elasticities etc.) are not identical to those assumed when the impact of the measures was initially calculated. The Department of the Environment is now reviewing the implications of the projections for the achievement of the UK's CO_2 target in the year 2000."

The paper did outline the changes in detail:

- CCGT [Combined Cycle Gas Turbine] build in the ESI has been greater than expected in EP59. Measures aimed at saving electricity are therefore more likely to result in lower gas burn than in lower coal burn. Because gas has a lower carbon content than coal and can be burned with higher efficiency, this effectively reduces the carbon savings associated with any given fall in electricity demand. The results...are calculated on the basis that mainly gas-fired generation is displaced by the CCP; if instead coal-fired generation were displaced, the "with CCP" CO_2 projections, ... would be further reduced.

- expectations of further pre-tax fossil fuel prices have fallen. The transport fuel duty increases in the CCP therefore represent a larger percentage increase in final price than previously. This tends to increase the estimated CO_2 savings in the transport sector.

The introduction of more CCGT (Combined Cycle Gas Turbine) plant, the "dash for gas" has not been as a result of Government policy to encourage the electricity supply industry to reduce CO_2 emissions, rather it has occurred as a result of the introduction of competition into the market. *Energy Paper 59* noted that[34]:

> "...The predominant feature of the first half of the 1990s has been the surge in interest in CCGTs. From zero capacity in 1990, existing and committed CCGT capacity (plant already operating or under construction) in the ESI is now around 15 gigawatts (GW). In addition, there are many projects with consent to proceed. It is likely, therefore, that actual CCGT capacity in 2000 will exceed the current committed capacity...
>
> "At least some of the build of CCGTs has been due to a desire on the part of regional electricity companies (RECs) to diversify their sources of electricity, or in some cases, to establish a foothold in the electricity generation market..."

As far as transport is concerned, *Energy Paper 59* stated that[35]:

> "Transport emissions rise steadily in all scenarios. In the low price scenarios, transport sector emissions are around the same size as those from the ESI. These two sectors combined account for the majority of emissions growth in the very long term."

In fact, in terms of end users of fuel, the road transport sector shows by far the highest rise in carbon dioxide emissions. Under the central growth, low fuel prices scenario such emissions are expected to rise by 57% from 33.2 MtC in 1990 to 52.2 MtC in 2020[36]. Even under the central growth, high fuel prices scenario, emissions are expected to rise by 42% to 47.4 MtC by the year 2020.

A summary of the savings from the elements of the climate change programme which have been specifically quantified are shown in the table below. It should be noted that the figures in the table are subject to revision as circumstances change. In an adjournment debate in February 1995, the Parliamentary Under-Secretary of State for the Environment, Sir Paul Beresford, commented[37]:

> "It is inevitable that some elements of the programme will save more CO_2 than expected, and others will save less. Continuous monitoring is, and will continue to be, an essential part of the process of developing a response within the flexible programme that the Government have laid out...
>
> "Some items in the programme are more experimental than others and further adjustments must be made..."

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[34] At p.82
[35] At p.101
[36] Table E.6 pp 145-6
[37] HC Deb 17 February 1995 c.1314

Reduction measure		Saving MtC
5% real rise in transport fuel duties		2.5
Energy Saving Trust	- under original funding plans	1.6
	(- under current funding	0.3)
Combined Heat and Power (CHP) schemes		1.0
Public sector energy consumption		0.8
VAT on domestic fuel		0.4
New renewable energy capacity		0.4
New building regulations		0.25

*Source:*HC Deb 30 March 1995 c.730W, Cm 2427

The Government is currently updating the carbon dioxide chapter of their climate change programme and is expected to be published later this year[38].

Following publication of *Energy Paper 65*, the Secretary of State for the Environment, John Gummer, commented[39]:

> "The new projections...show that we can be confident of meeting our commitment under the Climate Change Convention and that we now expect to exceed it, with emissions of carbon dioxide, by the year 2000, significantly below 1990 levels...
>
> "Some parts of the Programme are not now expected to deliver as much as originally envisaged...
>
> "...the Energy Saving Trust is currently reviewing its plans. It estimates that the programme of activities already established and financed will save about 0.3MtC... The Trust's further schemes will make additional contributions to the programme but are not yet established.
>
> "Overall, it would be reasonable to adjust the projections by about 1 MtC to reflect these changes in the Trust's plans, suggesting that carbon dioxide emissions will be 6 - 13 MtC below 1990 levels by 2000. This represents savings of 16 - 24 MtC against the projections on which the Climate Change Programme was based."

[38] HC Deb 5 April 1995 c.1285W, PQ from Robert Ainsworth MP
[39] HC Deb 8 March 1995 cc 191-4W

The environmental journal *ENDS Report* has suggested that the DTI "has taken an optimistic view of the effectiveness of the climate change strategy" in calculating future CO_2 emissions[40]. On the issue of VAT on domestic fuel, the journal reported:

> "The shortfall [in savings from the original 10 MtC] is ascribed mainly to the Government is failure to increase VAT on domestic fuel to the full rate of 17.5% which was due to deliver CO_2 savings of 1.5 MtC. The 8% VAT rate is now expected to save just 0.4 MtC. Even this may well be an overestimate, particularly in the light of recent actions by the electricity and gas regulators to reduce domestic energy prices. Eoin Lees, Chief Executive of the Energy Saving Trust (EST) is 'deeply sceptical that VAT will save anything. Because of price reductions, the end consumer won't notice or remember VAT in a few years'".

On the issue of transport fuel duty, the *ENDS Report* commented:

> "Higher duties on road fuel were predicted by the strategy to yield 2.5 MtC savings by 2000. However, a Treasury official told a House of Lords inquiry in March that savings of 3 MtC are now expected following the upward adjustment of duty increase after last year's VAT debacle.
>
> "Unfortunately, EP 65 contains a remarkable twist of logic. The DTI accepts that oil prices are likely to be considerably lower than previously expected. Its forecasts now show fuel prices in 2000 rising to 130-135% of the 1990 level - still cheaper than in the early 1980s. In contrast, the climate change strategy expected the road fuel duty increases to produce a 50-60% price hike. EP 65 goes on to reason that the increases in fuel duty 'therefore represent a larger percentage increase in final price than previously. This tends to increase the estimated CO_2 savings in the transport sector' - or to paraphrase, customers are expected to buy less fuel on the grounds that it is cheaper."

4. The Energy Saving Trust

One of the main elements of the original Climate Change Programme was the Energy Saving Trust. It was established in November 1992 by the Government, British Gas, the Regional Electricity Companies (RECs) in England and Wales, Scottish Power and Scottish Hydro Electric "to propose, develop and manage new programmes to promote energy efficiency". The Trust was to be funded by levies on consumers' electricity and gas bills. In evidence to the House of Commons Environment Committee in May 1993 the Trust stated that it required £1.5 billion by 2000 to achieve its targets[41]. The Trust's chairman, Lord Moore, told the Committee that he envisaged that this total would be met 50/50 between the gas and electricity industries, and that if this funding was not secured, "there is no prospect of achieving the levels of spend that we think are necessary to achieve the objectives that we think are right to try to obtain".

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[40] "Government forecasts take the heat off CO_2" *ENDS Report* March 1995 pp 23-26

[41] Environment Committee *Energy Efficiency in Buildings* HC 648-I 1992/93 3 November 1993

The Committee, however, received evidence from the utilities and their regulators that "revealed a huge discrepancy between what the EST considers it needs and what it is likely to receive in current circumstances". The Office of Electricity Regulation (OFFER) told the Committee that the electricity supply price review would produce only £25 million per annum from 1994/95 which amounts to nearly £100 million over the four years to 1998 when competition is introduced into the sector. British Gas told the Committee that although it agreed that the EST would need about £1.5 billion to achieve its targets, "it is not our understanding that half of the Trust's funding for the programme would be met by the gas sector and half by the electricity sector, although we accept that a large proportion, will come from these areas". The company said provided suitable schemes were found, around £100 million per annum could be reached by 1996 and remain around that level for the rest of the decade.

Since the Committee's report was published, funding from the electricity industry has matched the expectations of around £25 million/year. However, contributions from British Gas have run into severe difficulties following opposition from the Director General of Ofgas, Clare Spottiswoode. She replaced James McKinon as Director General in November 1993.

The Director General has opposed the introduction of an 'E-factor' levy on gas bills on the grounds that such a levy would be a tax and that the role of the regulator was not to raise taxes. In a memorandum to the Environment Select Committee, the Director General commented[42]:

> "All regulators work under the authorisation of Acts of Parliament. In my case this is the Gas Act of 1986. In the Act there is a clear duty to 'promote efficiency and economy' by British Gas, and to promote 'the efficient use of gas'.
>
> "In line with this duty, Ofgas has introduced an 'E' factor into the tariff formula (used to cap tariff revenue) in order to ensure that the Regulatory system itself does not hinder efficiency. Ofgas also oversees the 'efficient use of gas' condition in the authorisation granted by the Secretary of State to British Gas, and the efficiency related performance standards imposed by me on British Gas under the Gas Act. These take effect through a number of measures relating to energy advice given to consumers.
>
> "There appears to be a view however that this gives to the Director General of Gas Supply (DGGS) what is, in effect, a tax raising authority to promote schemes that have a financial cost, and that this would be borne by consumers. I have come to the conclusion that to take such action would be going beyond the powers I have been given under the Gas Act.
>
> "I believe it would be unprecedented for an organisation such as Ofgas to have tax raising powers of such a general nature. If Parliament had intended to give Ofgas such powers one might have expected this to be made clear in the Act. I understand it to be basic constitutional law that taxation cannot be levied without the express authority of Parliament.

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[42] Environment Committee *Energy Efficiency: The Role of Ofgas* Minutes of evidence 30 March 1994 HC 328-i 1993/94

> "I have therefore taken the view that my powers do not extend to any action that would constitute raising a tax from consumers of gas, unless this is clearly justified by the Gas Act. To take one such example, when the DGGS authorises an increase in prices in order to ensure that the supply of gas is viable. Such action is not taxation, but necessary to keep gas supplies flowing over the years."

In her oral evidence to the Committee, when pressed about why the previous regulator had taken such a different view towards the E-factor she commented that she could not answer for him but that "he did not take as much legal advice" as her, that her advice had been very clear and that she was "not a tax-raising authority". She went on to tell the Committee that the E factor must not result in any significant increase in gas prices and that her definition of significant was "zero" because "Ofgas is not a tax-raising authority and the only way in which 'significant' can be anything other than zero is if you give in on that principle".

Subsequently in May 1994 Sir James McKinnon gave evidence to the Committee during which he stated that he had "never transgressed the law in any sense" and that Ofgas had been "100 per cent satisfied that we were not about to exceed our powers or break the law"[43]. He commented that he did not see the E-factor as a "tax-gathering expedition".

Following her first appearance before the Committee, the Director General submitted a letter to the Committee in which she said that her "apprehension that Sir James McKinnon...had exceeded his legal powers in relation to application of the 'E-factor' was unfounded"[44]. She said that he had "acted entirely legally" and she apologised "unreservedly for having suggested otherwise".

In oral evidence to the Committee she said that she "fully accepted" legal advice that the E-factor was not to be considered a tax. She went on to say, that she had "a very wide degree of discretion" over the size of any E-factor levy and that new legal advice supported that fact that she could start at zero if she wanted. When asked about her policy on future schemes the Director-General commented:

> "I will look at every scheme that comes in front of me, I will consider whether this is the most cost-effective way of achieving that particular objective, whatever the objective is. But, clearly, as a matter of policy, this particular Regulator, in balancing her duties under that Gas Act, is going to take very seriously the fact that raising money through the E factor, if it increases prices to any substantial degree, has most of the characteristics of a tax; and that, quite legally and quite properly, I am allowed to take into account in making any determination."

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[43] Environment Committee *Energy Efficiency: The Rule of Ofgas* Minutes of Evidence 25 May 1994 HC 328-iii 1993/94

[44] ibid. at p.49

In November 1994, the Director-General published a paper on *The Efficient Use of Gas: The Role of OFGAS*. This concluded that the Director General would consider E-Factor proposals "scheme by scheme, each on it merits, in full accord with her statutory powers and duties". However, such schemes should "promote the efficient use of gas by encouraging a new focus on energy efficiency consistent with a fully competitive gas supply market in the late 1990s" and that "the aim would be to develop schemes which would be voluntarily purchased by gas consumers and where the beneficiaries paid the cost, removing any need for subsidy". The paper also stated that "schemes should not rely on E factor funding beyond March 1997" since"this date sees the end of the present price control period and is close to the time when full competition is due to be introduced into gas supply".

Ofgas announced its decision on funding for seven proposed energy efficiency schemes in February 1995[45]. These schemes had been drawn up by the EST, and were formally submitted to Ofgas by British Gas. Funding for four schemes, worth £47 million, was refused because they did not meet the criteria set out in *The Efficient Use of Gas: The Role of Ofgas*. The Director-General said that two more, worth £4 million, should qualify for funds when resubmitted, and that a third, worth £5 million, would be examined again when its pilot phase was over.

Neither of the two schemes which the Director-General said should qualify have yet been resubmitted to the EST, and the third is unlikely to be resubmitted when its pilot phase is over[46].

Consequently, the only funding that Ofgas has approved for the EST is about £0.7 million for the funding of the Trust, £2.0 million on a pilot energy efficient condensing boilers scheme and £1.1 million on a residential Combined Heat and Power (CHP) Programme.

In March 1995, the Government published its response to the Trade and Industry Committee's report on the domestic gas market[47]. The Committee embarked on the report prior to the introduction of the *Gas Bill* aimed at introducing competition into the domestic gas market[48]. The section of the Government's response dealing with the E-factor is reproduced below:

> **9. The Government, not the regulator, should take responsibility for any decision to impose an energy efficiency levy on gas consumers, and provision should be made in the Gas Bill for the Government to impose such a levy if it should prove necessary to achieve the Government's targets for reducing carbon dioxide emissions. The Government should also seek to ensure that the prospects for an increased use of combined heat and power are not damaged in the transition to a competitive market.**

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[45] "Ofgas announces energy efficiency decisions" *Ofgas Press Information 2/95* 9 February 1995
[46] Source: Ofgas
[47] HC 291 1994/95 8 March 1995
[48] For further details see Library Research Paper 95/30, *Gas Bill [Bill 60 1994/95]* 6 March 1995

> The Government is determined to achieve its targets for reducing carbon dioxide emissions. It is not clear at this stage that these targets require a new energy efficiency levies in addition to the mechanisms that already exist. In the longer term, the Government believes that the liberalisation of energy markets will create the opportunity for commercially driven energy efficiency packages to deliver growing benefits. In a competitive market, it is possible for a supplier to promote energy efficiency and increase gas sales, by using energy efficiency as a means of taking business from others. This is not a possible in a monopoly.
>
> For these reasons, while carefully noting the Committee's view , the Government has decided no to include in the Gas Bill any provision to impose a new levy on gas consumers to finance energy efficiency programmes.
>
> We do not consider the prospects for increased use of combined heat and power (CHP) will be damaged in the transition to a competitive market. We believe the liberalisation of the domestic market should increase the scope for competition in the interruptible gas market and thereby support the development of CHP. As independent suppliers gain market share in the domestic market, they are also likely to need greater flexibility in their supply portfolio and the interruptible gas market will provide an important additional source of such flexibility.

The Government view on amending the Gas Bill to provide for the promotion of energy efficiency to become one of the regulators duties was also set out in response to a PQ from Cynog Dafis MP[49]:

> "The Gas Bill will provide new opportunities for companies to market energy efficiency services and packages. In a competitive market, this strategy can allow a supplier to gain business from other firms, while saving energy.
>
> "The Bill provides that the Secretary of State and the director shall each have a duty to exercise his functions in the manner he considers best calculated to promote the efficient use if gas conveyed through pipes. No amendment to clause 1 is therefore needed to enable energy efficiency to be one of the regulator's duties."

Following the uncertainty over its funding, the Government announced in February 1995 that it was to take powers to enable it to contribute to the running costs of the Trust. In answer to a written Parliamentary Question from Barry Field, MP, the Parliamentary Under-Secretary of State, Robert Jones, said[50]:

> "My Rt. Hon. Friend the Secretary of State proposes to lay before Parliament an Order designating the Energy Saving Trust under Section 153 of the Environmental Protection Act 1990. This will provide a statutory basis, subject to Parliamentary approval of an appropriate Estimate, for the Government to contribute to the running costs of the Trust.
>
> "In the Government's view the Trust has a key role in future as an effective catalyst for change in a policy area which is important for progress on our economic, climate change and sustainable development objectives. The Trust has had a difficult and uncertain year. It now needs to review its plans.

[49] HC Deb 31 March 1995 cc 881-2W
[50] HC Deb 13 February 1995 cc 514-5W

> "It can only do that with a measure of certainty over funding. The Trust must maintain its independence, but it is important that it is able to develop new and innovative ideas at a time of major change in the gas and electricity industries.
>
> "I envisage contributing to the Trust's administrative and salary costs if the Trust can put forward satisfactory and cost-effective proposals to develop new initiatives to promote energy efficiency in the rapidly changing energy markets.
>
> "Once the Trust has drawn up proposals, my officials will discuss the plans with the Trust and its other members. This will provide a basis for deciding on an appropriate contribution from Government, taking into account other contributions."

In April 1995, when asked about the savings in emissions the Trust would achieve, the Parliamentary Under-Secretary of State, Robert Jones, commented that the Trust "was currently reviewing its plans"[51]. He said that "the Government will continue to reflect the key role of the trust, and the targets it sets itself, in the [climate change] programme; but they will not set targets for the trust".

In May 1995 the Government announced that it was to provide funds of £25 million a year to the Trust following the announcement that the part of the fossil fuel levy on electricity users attributable to nuclear energy (over 90%) was to end ahead of schedule. The Secretary of State for the Environment, John Gummer, said[52]:

> "My Rt Hon Friend the President of the Board of Trade has announced that he proposes to privatise parts of Nuclear Electric during 1996, and at the same time to end payments from the fossil fuel levy to the company, ahead of the original schedule. Our climate change programme and recently published forecasts assumed the original schedule for the termination of these payments.
>
> "Early termination will mean that electricity prices will fall sooner than anticipated, which may result in some corresponding increase in the output of carbon dioxide in the short-term. I am determined to ensure that we sustain momentum for increased energy efficiency, and continue to give the strong lead we have established internationally on climate change, most recently at the first conference of the parties to the Climate Change Convention in Berlin.
>
> "I am therefore pleased to announce that I shall make available to the Energy Saving Trust an additional £25 million a year to promote energy efficiency measures, from 1996 until the gas and electricity markets are fully liberalised.
>
> "Following my earlier announcement of support for its running costs, the Energy Saving Trust is currently drawing up new plans. I intend to invite the Trust to use the coming year to prepare a number of cost effective proposals for my consideration. I will make money available for the best ones within the £25 million ceiling.
>
> "I shall be looking for innovative pump-priming schemes involving all fuels, which require funding to get started and which are designed to take advantage of and enhance the effectiveness of the developing competitive markets for energy and energy services. I shall be looking for a positive emphasis on demand-side management measures and on the development of energy services companies."

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[51] HC Deb 5 April 1995 c.1285W, PQ from Robert Ainsworth MP
[52] HC Deb 11 May 1995 cc 564-5W, PQ from David Congdon MP

The environmental journal *ENDS Report* made the following comments about the future plans of the Trust after the recent funding announcement[53]:

> "The Trust is now working on a revised business plan to reflect the radical change in circumstances over the past year. The pruning of its forecast income spells an end to its more ambitious social housing projects. The emphasis is now likely to turn to the development of energy services such as loan finance schemes, improved independent advice on energy efficiency measures, and endorsement of energy saving products, perhaps through a certification system."

5. Public sector efficiency savings

The Government has set a savings target of 0.8 MtC of emissions from the public sector. The Government Estate accounts for approximately one-sixth of the public sector's emissions and is the subject of a separate energy efficiency campaign. In July 1989 the then Secretary of State for Energy, Cecil Parkinson, announced the launch of a campaign to improve energy efficiency within the public sector. He said that "the aim for Government Departments is to achieve savings rising to £45 million per annum - 15 per cent of the current total bill - over five years"[54].

The *First Annual Report of Campaign on the Government Estate* was published in October 1990. The report did not provide any figures on savings from the campaign but commented that "all departments have prepared new or revised strategies" and that "the first 12 months have seen the establishment of a sound framework within which progress with energy efficiency can be promoted and monitored over the next four years". The report also highlighted the basis on which any savings would be measured:

> "16. The target 15% savings over the 5 year campaign will be based on each department's total estate energy bill (at constant 1989-90 prices) divided by the total estate floor area (net). The energy bill has the space heating component adjusted for winter variations, using standard degree-day factors, and is normalised to floor area to remove fluctuations resulting from changing estate size.
>
> "17. Progress will be measured by comparison with a linear progression towards the target 15%. In each year the estate will be expected to save a further 3% of the base year figure so that with the base year defined to be 100, target levels for total estate bill per square metre of floor area for successive years are 97, 94, 91, and 88 and 85.

[53] "Energy Saving Trust bailed out with crumbs from nuclear table" *ENDS Report* May 1995 pp 12-13
[54] HC Deb 20 July 1989 c.249W

The latest figures for the campaign were published in May 1995[55], quoting an end date of March 1996. Given that the first annual report of the campaign was published in October 1990, it might have ben expected that the five year campaign should have ended in 1994. However, it would appear that time was required to established the methodology for measuring savings and another year (the base year) to collect data to act as benchmark for future savings[56].

The figures published in May showed that energy cost per square metre savings in the civil estate in 1993/94 amounted to 0.3% over the 1990/91 base year. However, when savings of 9% form the defence estate (MOD, Navy, Army, RAF etc.) are taken into account then the total energy cost savings for 1993/94 were 6%. This compares with a Government target of 9%. The defence estate has a large effect on the total figures as it accounts for 70% of the total energy consumed. The figures for CO_2 emissions per square metre were slightly better with 8% savings in the civil estate, 13% on the defence estate giving a total savings of 11%.

There was wide variation in the performance of individual civil departments. The worst was the Department of Health with a 98% increase in its energy costs per square metre, and the best were National Savings and the Department of Transport with 12% savings.

The latest performance figures for 1994/95 are due to be published shortly[57].

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[55] HC Deb 17 May 1995 cc 260-2W, PQ from Peter Ainsworth MP
[56] Source: DOE
[57] Source: DOE

Appendix 1

Countries which have ratified the Convention
(as at 23 June 1995)

	Country Name	Date of Signature	Date of Ratification	Entry into Force
1.	Mauritius	10 Jun 92	04 Sep 92	21 Mar 94
2.	Seychelles	10 Jun 92	22 Sep 92	21 Mar 94
3.	Marshall Islands	12 Jun 92	08 Oct 92	21 Mar 94
4.	United States of America	12 Jun 92	15 Oct 92	21 Mar 94
5.	Zimbabwe	12 Jun 92	03 Nov 92	21 Mar 94
6.	Maldives	12 Jun 92	09 Nov 92	21 Mar 94
7.	Monaco	11 Jun 92	24 Nov 92	21 Mar 94
8.	Canada	12 Jun 92	04 Dec 92	21 Mar 94
9.	Australia	04 Jun 92	30 Dec 92	21 Mar 94
10.	China	11 Jun 92	05 Jan 93	21 Mar 94
11.	Saint Kitts and Nevis	12 Jun 92	07 Jan 93	21 Mar 94
12.	Antigua and Barbuda	04 Jun 92	02 Feb 93	21 Mar 94
13.	Ecuador	09 Jun 92	23 Feb 93	21 Mar 94
14.	Fiji	09 Oct 92	25 Feb 93	21 Mar 94
15.	Mexico	13 Jun 92	11 Mar 93	21 Mar 94
16.	Papua New Guinea	13 Jun 92	16 Mar 93	21 Mar 94
17.	Vanuatu	09 Jun 92	25 Mar 93	21 Mar 94
18.	Cook Islands	12 Jun 92	20 Apr 93	21 Mar 94
19.	Guinea	12 Jun 92	07 May 93	21 Mar 94
20.	Armenia	13 Jun 92	14 May 93	21 Mar 94
21.	Japan	13 Jun 92	28 May 93	21 Mar 94
22.	Zambia	11 Jun 92	28 May 93	21 Mar 94
23.	Peru	12 Jun 92	07 Jun 93	21 Mar 94
24.	Algeria	13 Jun 92	09 Jun 93	21 Mar 94
25.	Saint Lucia	14 Jun 93	14 Jun 93	21 Mar 94
26.	Iceland	04 Jun 92	16 Jun 93	21 Mar 94
27.	Uzbekistan		20 Jun 93	21 Mar 94
28.	Dominica		21 Jun 93	21 Mar 94
29.	Sweden	08 Jun 92	23 Jun 93	21 Mar 94
30.	Norway	04 Jun 92	09 Jul 93	21 Mar 94
31.	Tunisia	13 Jun 92	15 Jul 93	21 Mar 94
32.	Burkina Faso	12 Jun 92	02 Sep 93	21 Mar 94
33.	Uganda	13 Jun 92	08 Sep 93	21 Mar 94
34.	New Zealand	04 Jun 92	16 Sep 93	21 Mar 94
35.	Mongolia	12 Jun 92	30 Sep 93	21 Mar 94
36.	Czech Republic	18 Jun 93	07 Oct 93	21 Mar 94
37.	Tuvalu	08 Jun 92	26 Oct 93	21 Mar 94
38.	India	10 Jun 92	01 Nov 93	21 Mar 94
39.	Nauru	08 Jun 92	11 Nov 93	21 Mar 94
40.	Jordan	11 Jun 92	12 Nov 93	21 Mar 94

	Country Name	Date of Signature	Date of Ratification	Entry into Force
41.	Micronesia	12 Jun 92	18 Nov 93	21 Mar 94
42.	Sudan	09 Jun 92	19 Nov 93	21 Mar 94
43.	Sri Lanka	10 Jun 92	23 Nov 93	21 Mar 94
44.	United Kingdom	12 Jun 92	08 Dec 93	21 Mar 94
45.	Germany	12 Jun 92	09 Dec 93	21 Mar 94
46.	Switzerland	12 Jun 92	10 Dec 93	21 Mar 94
47.	Republic of Korea	13 Jun 92	14 Dec 93	21 Mar 94
48.	Netherlands	04 Jun 92	20 Dec 93	21 Mar 94
49.	Denmark	09 Jun 92	21 Dec 93	21 Mar 94
50.	Portugal	13 Jun 92	21 Dec 93	21 Mar 94
51.	Spain	13 Jun 92	21 Dec 93	21 Mar 94
52.	European Community	13 Jun 92	21 Dec 93	21 Mar 94
53.	Cuba	13 Jun 92	05 Jan 94	05 Apr 94
54.	Mauritania	12 Jun 92	20 Jan 94	20 Apr 94
55.	Botswana	12 Jun 92	27 Jan 94	27 Apr 94
56.	Hungary	13 Jun 92	24 Feb 94	25 May 94
57.	Paraguay	12 Jun 92	24 Feb 94	25 May 94
58.	Austria	08 Jun 92	28 Feb 94	29 May 94
59.	Brazil	04 Jun 92	28 Feb 94	29 May 94
60.	Argentina	12 Jun 92	11 Mar 94	09 Jun 94
61.	Malta	12 Jun 92	17 Mar 94	15 Jun 94
62.	Barbados	12 Jun 92	23 Mar 94	21 Jun 94
63.	France	13 Jun 92	25 Mar 94	23 Jun 94
64.	Bahamas	12 Jun 92	29 Mar 94	27 Jun 94
65.	Ethiopia	10 Jun 92	05 Apr 94	04 Jul 94
66.	Italy	05 Jun 92	15 Apr 94	14 Jul 94
67.	Bangladesh	09 Jun 92	15 Apr 94	14 Jul 94
68.	Ireland	13 Jun 92	20 Apr 94	19 Jul 94
69.	Malawi	10 Jun 92	21 Apr 94	20 Jul 94
70.	Nepal	12 Jun 92	02 May 94	31 Jul 94
71.	Finland	04 Jun 92	03 May 94	01 Aug 94
72.	Luxembourg	09 Jun 92	09 May 94	07 Aug 94
73.	Pakistan	13 Jun 92	01 Jun 94	30 Aug 94
74.	Chad	12 Jun 92	07 Jun 94	05 Sep 94
75.	Romania	05 Jun 92	08 Jun 94	06 Sep 94
76.	Gambia	12 Jun 92	10 Jun 94	08 Sep 94
77.	Liechtenstein	04 Jun 92	22 Jun 94	20 Sep 94
78.	Trinidad and Tobago	11 Jun 92	24 Jun 94	22 Sep 94
79.	Benin	13 Jun 92	30 Jun 94	28 Sep 94
80.	Malaysia	09 Jun 93	13 Jul 94	11 Oct 94

	Country Name	Date of Signature	Date of Ratification	Entry into Force
81.	Estonia	12 Jun 92	27 Jul 94	25 Oct 94
82.	Poland	05 Jun 92	28 Jul 94	26 Oct 94
83.	Georgia		29 Jul 94	27 Oct 94
84.	Philippines	12 Jun 92	02 Aug 94	31 Oct 94
85.	Greece	12 Jun 92	04 Aug 94	02 Nov 94
86.	Grenada	03 Dec 92	11 Aug 94	09 Nov 94
87.	Uruguay	04 Jun 92	18 Aug 94	16 Nov 94
88.	Indonesia	05 Jun 92	23 Aug 94	21 Nov 94
89.	Slovak Republic	19 May 93	25 Aug 94	23 Nov 94
90.	Costa Rica	13 Jun 92	26 Aug 94	24 Nov 94
91.	Nigeria	13 Jun 92	29 Aug 94	27 Nov 94
92.	Guyana	13 Jun 92	29 Aug 94	27 Nov 94
93.	Kenya	12 Jun 92	30 Aug 94	28 Nov 94
94.	Bolivia	10 Jun 92	03 Oct 94	01 Jan 95
95.	Albania		03 Oct 94	01 Jan 95
96.	Senegal	13 Jun 92	17 Oct 94	15 Jan 95
97.	Cameroon	14 Jun 92	19 Oct 94	17 Jan 95
98.	San Marino	10 Jun 92	28 Oct 94	26 Jan 95
99.	Belize	13 Jun 92	31 Oct 94	29 Jan 95
100.	Comoros	11 Jun 92	31 Oct 94	29 Jan 95
101.	Viet Nam	11 Jun 92	16 Nov 94	14 Feb 95
102.	Myanmar	11 Jun 92	25 Nov 94	23 Feb 95
103.	Cote d'Ivoire	10 Jun 92	29 Nov 94	27 Feb 94
104.	Samoa	12 Jun 92	29 Nov 94	27 Feb 95
105.	DPR of Korea	11 Jun 92	05 Dec 94	05 Mar 95
106.	Egypt	09 Jun 92	05 Dec 94	05 Mar 95
107.	Lebanon	12 Jun 92	15 Dec 94	15 Mar 95
108.	Chile	13 Jun 92	22 Dec 94	22 Mar 95
109.	Bahrain	08 Jun 92	28 Dec 94	28 Mar 95
110.	Kuwait		28 Dec 94	28 Mar 95
111.	Mali	22 Sep 92	28 Dec 94	28 Mar 95
112.	Russian Federation	13 Jun 92	28 Dec 94	28 Mar 95
113.	Saudi Arabia		28 Dec 94	28 Mar 95
114.	Solomon Islands	13 Jun 92	28 Dec 94	28 Mar 95
115.	Thailand	12 Jun 92	28 Dec 94	28 Mar 95
116.	Venezuela	12 Jun 92	28 Dec 94	28 Mar 95
117.	Lao People's DR		04 Jan 95	04 Apr 95
118.	Jamaica	12 Jun 92	06 Jan 95	06 Apr 95
119.	Zaire	11 Jun 92	09 Jan 95	09 Apr 95
120.	Kiribati	13 Jun 92	07 Feb 95	08 May 95

	Country Name	Date of Signature	Date of Ratification	Entry into Force
121.	Lesotho	11 Jun 92	07 Feb 95	08 May 95
122.	Oman	11 Jun 92	08 Feb 95	09 May 95
123.	Togo	12 Jun 92	08 Mar 95	06 Jun 95
124.	Central African Republic	13 Jun 92	10 Mar 95	08 Jun 95
125.	Colombia	13 Jun 92	22 Mar 95	20 Jun 95
126.	Latvia	11 Jun 92	23 Mar 95	21 Jun 95
127.	Lithuania	11 Jun 92	24 Mar 95	22 Jun 95
128.	Cape Verde	12 Jun 92	29 Mar 95	27 Jun 95
129.	Eritrea		24 Apr 95	23 Jul 95
130.	Bulgaria	05 Jun 92	12 May 95	10 Aug 95
131.	Azerbaijan	12 Jun 92	16 May 95	14 Aug 95
132.	Namibia	12 Jun 92	16 May 95	14 Aug 95
133.	Kazakhstan	08 Jun 92	17 May 95	15 Aug 95
134.	Panama	18 Mar 93	23 May 95	24 Aug 95
135.	Turkmenistan		05 Jun 95	03 Sep 95
136.	Republic of Moldova	12 Jun 92	09 Jun 95	07 Sep 95
137.	Sierra Leone	11 Feb 93	22 Jun 95	20 Sep 95

Source: UNEP World Wide Web Server @ http://www.unep.ch