



Climate change levy

Standard Note: SN/BT/235

Last updated: 20 November 2009

Author: Antony Seely

Section: Business & Transport Section

In his 1999 Budget the then Chancellor Gordon Brown announced a new climate change levy on the business use of energy, with offsetting cuts in employers' National Insurance contributions (NICs).¹ The proposal for this type of levy had been made in a report commissioned by the Government from Lord Marshall, then chairman of British Airways, published the year before. The levy came into force from 1 April 2001, charged on electricity, gas, liquefied petroleum gas and solid fuels, when supplied to business.² At this time, the rate of NICs paid by employers on employee earnings (known as secondary Class 1 NICs) was cut from 12.2% to 11.9%, although NIC rates for both employees and employers have risen since then. Energy used by the domestic sector and public transport is exempt from the levy. In addition, under a system of Climate Change Agreements (CCAs), energy intensive firms are allowed an 80 per cent reduction in the levy provided they agree to increase energy efficiency and reduce emissions.³

In 2005 the Government published an assessment of the levy which projected that by 2010 it would have reduced energy demand in the commerce and public sector by around 15%, saving around 12.8 million tonnes of carbon dioxide (MtCO₂) a year.⁴ The Government estimates that the levy, along with the system of CCAs, will be responsible for around a third of all the carbon savings achieved by UK policy by 2010: around 20 MtCO₂ a year. By comparison the EU's Emissions Trading Scheme is anticipated to be reducing the UK's emissions by around 29 MtCO₂ a year by this stage.⁵

In the 2006 Budget the Government announced that from 1 April 2007 the rates of the levy would be increased in line with inflation each year;⁶ as a result, duty rates have been increased three times since then. The levy rose £716m in 2008/09.⁷ This note gives a short history of the levy, and the assessments that have been made of its effectiveness in reducing greenhouse gas emissions.

¹ HC Deb 9 March 1999 c181

² *Budget 2001* HC 279 March 2001 paras 6.19-22

³ Details on the scope of the levy are given in, HM Revenue & Customs, [A general guide to Climate Change Levy: Notice CCL1](#), July 2009

⁴ *Budget 2005* HC 372 March 2005 p159

⁵ Environmental Audit Committee, *Reducing Carbon Emissions from UK Business: The role of the Climate Change Levy and Agreements*, 10 March 2008 HC 354 2007-08 pp7-8

⁶ HC 968 March 2006 para 7.33

⁷ HM Revenue & Customs, [Climate Change Levy Bulletin](#), August 2009 (table 1)

This information is provided to Members of Parliament in support of their parliamentary duties and is not intended to address the specific circumstances of any particular individual. It should not be relied upon as being up to date; the law or policies may have changed since it was last updated; and it should not be relied upon as legal or professional advice or as a substitute for it. A suitably qualified professional should be consulted if specific advice or information is required.

This information is provided subject to our general terms and conditions which are available online or may be provided on request in hard copy. Authors are available to discuss the content of this briefing with Members and their staff, but not with the general public.

Contents

1	The Marshall report on the business use of energy	2
2	The decision to introduce a levy : Budget 1999	4
3	Changes to the design of the levy (1999 – 2000)	7
4	The first years of the levy (2001 – 2005)	10
	4.1 Estimating the impact of the levy	10
	4.2 Criticisms of the levy	14
5	Recent developments	18

1 The Marshall report on the business use of energy

In his 1998 Budget the then Chancellor, Gordon Brown, announced a new review into the possibility of a tax on the industrial and commercial use of energy:

The Kyoto summit was a landmark for international agreements on the environment ... Having signed up to an 8 per cent. reduction in European Union carbon emissions, we are determined to play our part--nationally and internationally--in meeting those targets ... There has been increasing pressure, not least from businesses, for measures that encourage greater energy efficiency in industry. I am grateful to Sir Colin Marshall, the chairman of British Airways and, until July, president of the CBI, for agreeing to head a Government review into economic instruments to improve the industrial and commercial use of energy. It will include a study of whether new economic instruments, such as an industrial energy tax and/or other market mechanisms, should be introduced to help to curb industrial emissions, and, if so, how that will be done.⁸

In a press notice issued at the time, Mr Brown noted that the appointment “follows the successful model established by Martin Taylor and the task force on tax and benefits. It shows that Government and the private sector can achieve more by working together, harnessing the expertise of both.”⁹ Following the Labour party’s victory in the 1997 General Election the Chancellor had commissioned Martin Taylor, then chief executive of Barclays Bank, to produce a report on work incentives. His report was published alongside the 1998 Budget, and many of his recommendations were implemented as part of the Government’s welfare to work strategy, including the introduction of tax credits.

In June 1998 the review published a consultation paper which sought “views on the practicality and potential cost effectiveness of different economic instruments. The two leading options considered are a tax on the use of energy by the industrial and commercial sector, or a trading scheme in energy or carbon emissions.”¹⁰ In November that year Lord Marshall published his report, alongside the *Pre-Budget Report*, arguing for a “mixed approach” to include economic instruments to help “improve business use of energy and

⁸ HC Deb 17 March 1998 cc 1108-1109

⁹ HM Treasury Budget press notice HMT 14, 17 March 1998

¹⁰ HM Treasury press notice 91/98, 5 June 1998. Responses were invited up to 31 July.

reducing greenhouse gas emissions as part of a package of measures, alongside existing regulations, voluntary and negotiated agreements, and other measures, and appropriate action on the part of other sectors.” Lord Marshall argued that new taxes had to be part of a solution, as any future international agreement to allow companies to trade emissions permits was very unlikely to include all businesses:

Even when the international trading scheme is fully developed, it is unlikely that all businesses will be involved. Indeed, I doubt whether it will ever be practical for the majority of small and medium sized enterprises (SMEs) and less intensive users in industrial and commercial sectors to participate in the international trading scheme. Taken together, these firms account for around 60 per cent of total carbon dioxide emissions from business, and may offer scope for significant improvements in energy efficiency and reductions in emissions. Hence, my conclusion is that there probably is a role for a tax if businesses of all sizes and from all sectors are to contribute to improved energy efficiency and help meet the UK's emissions targets. In order to help businesses plan for future investment and maximise the environmental impact of a tax, a clear signal should be given of the long-term direction of policy, with changes in the rates of tax made in a gradual and predictable way.

Any tax must be designed in a way that protects the competitive position of British industry. To this end, I recommend that:

- the revenues are recycled in full to business, with at least some of the revenues channelled into schemes aimed directly at promoting energy efficiency and reducing greenhouse gas emissions - perhaps through 'carbon trust' type schemes to promote low carbon technologies, and/or energy audits/advice for SMEs.
- consideration be given to the treatment of energy intensive industries, with the aim of reducing the overall impact on the heaviest users, whilst retaining some incentive for all users to save energy at the margin; a system of rebates, perhaps with the relief targeted at plant level, seems the leading option here.
- any measures are subject to detailed consultation about their design.

Given current policy objectives for the domestic sector, the leading option for a tax would, in my view, appear to be a 'downstream' tax on the final use of energy by industrial/commercial consumers, with the tax rates reflecting (at least in broad terms) the carbon content of different fuels. The design of any tax should ensure that Combined Heat and Power (CHP) is not disadvantaged. It should also aim, where possible, to increase incentives for the take-up of renewable sources of energy.¹¹

Initially the Government was non-committal, simply stating that it would consider the review's recommendations “very carefully.”¹²

In February 1999 the Environmental Audit Committee published a report on the Pre-Budget Report, in which it argued that the Government should make its intentions known as quickly as possible:

34. We asked the Economic Secretary why the Government in this Pre-Budget Report had not followed the practice, used by the last Government for the landfill tax and by her own Government for the minimum wage, of announcing the intention to introduce a tax on business use and then following this with further consultation on its precise

¹¹ HM Treasury, *Economic instruments and the business use of energy: a report by Lord Marshall*, November 1998 pp1-3. Available at: <http://www.hm-treasury.gov.uk/d/EconomicInstruments.pdf>

¹² Cm 4076 November 1998 p76

nature and scope. The Economic Secretary told us the energy tax was different from the minimum wage, on which the Government had spent years considering the case and the form of it in opposition. She said the Government had very much welcomed Lord Marshall's report and considered it moved the debate very substantially forward. However, she considered it was impossible, for this tax, to separate the decision in principle from the practical questions of precisely what kind of tax it would be. The Government was now looking at the complex issues raised by the report, so that when it took the decision on whether to proceed with a tax, it would be on the basis of a specific set of features for it ...

36. We consider the time is now ripe for confirming the Government's intentions regarding a tax on business use of energy: the groundwork has been done and opportunities for consultation have been exploited to the full. One of the most important aspects, when considering taxes affecting the business sector, is that there should be clarity over the Government's long-term strategy to aid in business planning. **We look forward to the announcement of a decision, to give a clear signal on the long-term direction of policy, in line with Lord Marshall's conclusions.**¹³

2 The decision to introduce a levy : Budget 1999

In his 1999 Budget speech the Chancellor announced that the Government had decided to introduce a climate change levy, on the lines proposed by Lord Marshall:

My first proposal alone will reduce carbon pollution by 1.5 million tonnes. The Government have received Lord Marshall's report, for which I thank him, on the role of economic instruments and the business use of energy. We will now implement Lord Marshall's recommendations and we will introduce a levy on business use of energy from April 2001. And it will be brought in, after further consultation with the industry, on a revenue-neutral basis, with no overall increase in the burden of taxation on business. Because we intend at the same time to cut the main rate of employers' national insurance contributions from 12.2 per cent. to 11.7 per cent.¹⁴

The Government anticipated that the new levy would raise £1.75 billion (before revenue recycling) in its first full year (2001/02).¹⁵ Further details of the way receipts would be recycled back to business, and the way the levy would be applied to energy intensive sectors, were given in a Budget press notice:

The Government agrees with Lord Marshall's recommendation that the levy must be designed in a way that protects the competitiveness of UK firms. The Government therefore intends to recycle the revenues to business, and intends to cut the main rate of employer NICs by 0.5 percentage points. Businesses will also benefit from schemes aimed at promoting energy efficiency directly and stimulating the take-up of renewables sources of energy, like solar and wind power. The introduction of the climate change levy will therefore entail no increase in the burden of taxation on business.

¹³ HC 93 1998-99 pxviii. The Committee had been established in November 1997, "to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development" (Environmental Audit Committee press notice no.1, 25 November 1997).

¹⁴ HC Deb 9 March 1999 c81

¹⁵ *Budget 1999* HC 298 March 1999 para 5.64

The Government also recognises the need for special consideration to be given to the position of energy intensive industries given their energy usage, the separate Integrated Pollution Prevention and Control regulation and their exposure to international competition. In line with the recommendations made by the CBI, the Government will not be taking a blanket 'across the board' approach to setting the appropriate level of the new levy. Subject to any legal and practical constraints, the Government intends to set significantly lower rates for those energy intensive sites that agree targets for improving their energy efficiency which meet the Government's criteria. The Deputy Prime Minister has written to the trade associations of the main energy intensive sectors on Budget day, and will begin negotiations with energy intensive sectors shortly.¹⁶

At this time, the Government published a consultation paper on the design of the levy. To ensure that domestic consumption of energy was not caught by the levy and to keep compliance costs to a minimum, the levy would be imposed at the time of supply to industrial and commercial consumers rather than at the time of consumption by end-users. As a consequence, suppliers of taxable commodities would be required to register and to pay the tax authorities the levy that was due. Though the Marshall report had suggested the levy might be based on the carbon content of fuels, the consultation paper proposed using their energy content instead:

5.2 The Government is aware of the attractions, in principle, for structuring the levy so that it reflects the *carbon content* of different fuels. However, as recognised in Lord Marshall's report, given the current structure of the electricity and distribution industries, it is only possible to determine the carbon content of electricity as a broad average. On that basis, the additional fuel switching that would be induced by such an approach is likely to be limited.

5.3 Structuring the levy with regard to the *energy content* of different fuels has the advantage of simplicity. It would also be consistent with the 1998 Review of Energy Sources for Power Generation. This identified distortions in the generation market as a potential threat to the security and diversity of energy supplies and announced a programme of reform to ensure fair competition between fuels. In light of these considerations, the Government therefore intends to use the *energy content* of fuels as the basis of the levy.¹⁷

On the assumption that the new charge should raise around £1.75bn a year, the paper suggested that the levy might be charged at 0.21p/kWh on coal and gas, and 0.60/kWh on electricity. The rate of electricity would be set higher than other fuels because "a considerable proportion of the energy content of fossil fuels used in electricity generation is lost in combustion, transmission and distribution." As a consequence the rate would "be set such that it is equal to the amount of the levy which would have been charged had the inputs to generation been taxed on the basis of the energy content."¹⁸

Several industrial sectors raised concerns that the levy would substantially affect their ability to compete internationally – notably, the steel sector¹⁹ – and the Confederation of British

¹⁶ HM Treasury Budget press notice HMT6, 9 March 1999. Discussions with trade associations about the treatment of energy intensive sectors were formally launched a few days later (Department of the Environment, Transport and Regional Affairs press notice 316, 29 March 1999).

¹⁷ HM Customs & Excise, *A Climate Change Levy – A Consultation Document*, March 1999 p5

¹⁸ *op.cit.* p6

¹⁹ UK Steel Association press notice, *Concern that tax remains major drain on manufacturing's ability to invest*, 29 March 1999

Industry suggested that manufacturing stood to lose out, given that some big energy users, such as cement producers, were relatively capital-intensive, and would gain little from a cut in employer NICs.²⁰ The potential impact of the levy on business was raised quite often in the House at this time, both in PQs²¹ and at Treasury Questions.²² In July 1999 the Trade & Industry Committee published a report on the issue, critical of the impact the levy as proposed would have on manufacturing. Many witnesses to the Committee took issue with the Government's decision not to introduce a carbon tax:

A common refrain from witnesses was that the Climate Change Levy did not focus strongly enough on the need to reduce carbon dioxide emissions, because it failed to discriminate between energy sources according to their carbon content. As presently proposed, electricity generated from renewables, nuclear fuel, coal and gas would all attract the same rate of Levy. A carbon tax, which would hit carbon-rich fuels such as coal more heavily than fuels which emit little or no carbon dioxide such as renewables, might be preferable to an energy tax because of the incentives it would give energy users to switch their fuel use from fuels with high to low carbon content.

The Minister for the Environment acknowledged the "theoretical attraction" of a carbon tax but told us that its potential advantages over an energy tax had been blunted by the decision to apply the Levy to downstream energy consumption, to avoid the taxation of domestic fuel use, rather than at the source of the fuel. He also argued that, with a tax applied on energy consumption rather than production, it would be difficult to determine the carbon content of electricity, except as a broad average, and that this would reduce the extent to which fuel switching would be likely to occur ...

Although there might be practical difficulties associated with the design of a carbon tax, there is also a political consideration — the position of the coal industry ... [The Minister for the Environment] acknowledged that a carbon tax would have "a very disproportionate impact" on coal use ... There is a tension between the Government's desire to protect the coal industry and the need to cut back carbon dioxide emissions which, at least partly, explains the reluctance to link the taxation of energy use to the carbon content of fuels.

For its part the Committee argued for "a more subtle approach" from the Government to the problem of industry emissions:

[The levy as proposed] treats all fuel types equally, regardless of their carbon content. A crude method of recycling revenues has been chosen, which essentially effects a transfer of resources from manufacturing industry to the service and public sectors. It places undue reliance on untested, unproven energy efficiency agreements between Government and industry. A more subtle approach is required from Government, for instance making use of more imaginative means of recycling the revenues raised by the Levy, including tax incentives for energy efficient investments, and drawing on the experiences of other countries which have established energy or carbon taxes. The Government is right to make a bold commitment to meeting its Kyoto target, but that target must not be met at the expense of British manufacturing industry.²³

²⁰ CBI press notice, *Energy tax details must reflect dangers to manufacturing - CBI Chief*, 22 April 1999

²¹ For example: HC Deb 30 March 1999 c665W; HC Deb 12 May 1999 cc153-154W; HC Deb 8 July 1999 cc606-608W

²² HC Deb 13 May 1999 cc 410-412

²³ Trade & Industry Committee, *Impact on Industry of the Climate Change Levy*, 19 July 1999 HC 678 1998-99 paras 33-4, para 51

The House debated the proposed levy on the publication of the Committee's report. Speaking for the Conservatives, David Heathcoat-Amory argued that "the proposed tax represents a massive transfer of cash from the manufacturing and energy-using sectors of the economy to the service sector, and to the public sector in particular." Mr Heathcoat-Amory went on to support the use of emissions trading as a means to deal with global warming while doing "as little damage as possible to our competitive position."²⁴ By contrast, speaking for the Liberal Democrats, Andrew Stunnell, stated that the party "welcome the levy in principle" but raised a series of reservations, principally that the levy "does not discriminate between carbon-based and non-carbon based fuels."²⁵

In response the then Economic Secretary, Patricia Hewitt, reiterated the point that the levy had to be "primarily based on energy because ... this is a downstream, not an upstream, tax. Given the electricity pool arrangements, it is not possible for any business user to tell how much of his electricity comes from a particular source – whether it be coal, gas or a renewable source." Ms Hewitt went on to reject the argument that emissions trading alone would be a sufficient response to the problem: "as Lord Marshall pointed out, emissions trading is unlikely ever to cover the majority of SMEs in the UK ... emissions trading and the climate change levy are complementary measures, and the Select Committee ... specifically endorsed that conclusion."²⁶

3 Changes to the design of the levy (1999 – 2000)

In his Pre-Budget statement on 9 November, the then Chancellor, Gordon Brown, announced a series of changes to the levy, in the light of the responses the department had received to its consultation paper:

Our original proposal was to cut environmental pollution by 1.5 million tonnes a year by 2010. Our consultation has shown that we can cut environmental pollution even further by 2010--by more than 2 million tonnes a year--and at the same time cut the levy from £1.75 billion to £1 billion. I have decided that renewable energy sources and combined heat and power will be exempt from the levy. The main rate per kW hour will be cut from 0.21p to 0.15p, and there will be an 80 per cent. discount to energy-intensive sectors signing energy efficiency agreements. Taken together, those changes approach a 90 per cent. discount on the levy published at Budget time in return for agreed industry action to cut emissions.

All the revenues raised will be recycled to business. I can confirm that every business will receive a tax cut of 0.3 percentage points in employer national insurance contributions. I have ensured not only that that package is revenue neutral for business and revenue neutral between manufacturing and services, but that even after the national insurance change there will be no gain to the public purse.²⁷

Further details were given in the *Pre-Budget Report*.

²⁴ HC Deb 20 July 1999 c1034, c1039

²⁵ HC Deb 20 July 1999 c1050

²⁶ HC Deb 20 July 1999 c1044, 1047

²⁷ HC Deb 9 November 1999 c889

In light of the responses to the consultation exercise, and other representations made, the Government intends to increase the environmental effectiveness of the levy by:

- exempting from the levy electricity generated from 'new' renewable sources of energy and in 'good quality' combined heat and power plant; and
- trebling the support for energy efficiency measures arising from the levy package to around £150m in 2001-02, to allow for the introduction of a system of enhanced capital allowances for energy saving investments;

and protect competitiveness by:

- reducing the overall size of the levy to £1.0 billion in 2001-02, with a commensurate reduction in the main levy rates;
- offering an 80 per cent discount for those energy intensive sectors that sign energy efficiency agreements that meet the Government's criteria; and
- recycling all the revenues raised back to business as a whole through a 0.3 percentage point cut in employers' National Insurance Contributions and the additional support for energy efficiency measures.

The levy package as a whole is therefore expected to be revenue neutral for the private sector. Its introduction will entail no net financial gain for the public finances. Furthermore, the levy package as a whole is expected to be broadly neutral between the manufacturing and service sectors.²⁸

The report went on to note that "as with excise duties, the Government expects that the rates of the levy will at least keep pace with inflation over time." In addition to the 80% discount for sectors signing up to energy efficient agreements, a number of exemptions were also announced, including electricity generated from 'new' renewable sources of energy (other than large scale hydro plant), and electricity generated in 'good quality' combined heat and power (CHP) plants.²⁹

At the time the *Financial Times* reported that environmental groups "expressed disappointment at what they saw as the Chancellor's climb-down" though industry had given "a cautious welcome to the proposed tax change." Adair Turner, then CBI director-general, was quoted as saying the modifications to the scope of the levy would "lessen the impact of the tax on competitiveness, without sacrificing the aim of improving the environment and increasing energy efficiency."³⁰

Similarly the Environment Audit Committee expressed the view that the new exemptions for CHP and renewables had "significantly improved the environmental effectiveness of the levy as well as reducing its potential impact on international competitiveness." However the Committee expressed serious concern over "the evident and significant difficulties ... which have largely resulted from the early and fundamental decision to implement the tax as a downstream measure in order to exempt the domestic sector":

[Several witnesses] ... questioned whether a decision to exempt permanently the entire domestic sector from the environmental costs of its energy consumption was tenable or indeed equitable given the large variations in consumption between different income households. The Energy Intensive Users Group (EIUG) pointed out that the UK's domestic sector holds enormous potential for cost-efficient energy savings, and that exempting it does not address the Government's concerns about fuel poverty

²⁸ Cm 4479 November 1999 para 6.32

²⁹ Cm 4479 November 1999 para 6.45

³⁰ "Brown looks less green after easing environment taxes", *Financial Times*, 10 November 1999

which should undoubtedly be tackled. Similarly, the Institute of Directors pointed to the administrative complexity and risks of this approach, and considered that households were as capable of having their energy-consumption decisions altered by a Levy as businesses. It went on to state that fuel poverty could be better addressed by the independent policy instrument of social security benefits and that there would be no reason to offer special help to all households when the majority of them could afford the Levy and could afford to improve the energy efficiency of their homes.³¹

A number of further refinements to the design of the levy were announced in the 2000 Budget, including a transitional 50% discount for horticulture firms, and a lower duty rate on liquefied petroleum gas (LPG) – set at 0.07p/kWh. The second of these changes was, as a press notice stated, “in recognition of [this fuel’s] use in rural areas, and to discourage fuel switching from LPG to more environmentally damaging fuels.”³²

Legislation to introduce the levy is set out in section 30 & Schedule 6 of the *Finance Act 2000*. The first of these provisions was selected for debate by the Committee of the Whole House on 2 May;³³ on this occasion, speaking for the Conservatives, David Heathcoat-Amory argued that the new levy was “thoroughly bad”:

It gives a further twist to the regulatory spiral; it damages British competitiveness and deters inward investment. It has perverse and arbitrary effects on industry; some processes, businesses and industries qualify for exemptions or rebates while others do not. Furthermore--perhaps the most spectacular point--the tax is unnecessary on environmental grounds. That is why we oppose it.³⁴

Speaking for the Liberal Democrats, Andrew Stunnell approved of the aims of the new levy, but argued that the details were not satisfactory: in particular, the levy was “on the wrong thing at the wrong point ... if the levy is designed to cut greenhouse gases, especially carbon dioxide, it would be better applied upstream, where the oil, coal and gas are first burned.” Mr Stunnell went on to suggest that the levy “is too rough and ready, when it should be smooth and progressive ... we would prefer a climate change levy to be introduced at a lower rate but with a clear built-in escalator, so that progressively tougher targets are set during the period up to 2010.”³⁵

Responding to the debate the then Financial Secretary, Stephen Timms reiterated the Government’s reasons for imposing the tax on industrial use of energy:

For social policy reasons, the levy will not be charged on the domestic use of energy, because of our concern at the current high rate of fuel poverty. The existing rules used to establish which supplies of fuel and power are charged at the lower rate of 5 per cent. value added tax will be used to determine domestic consumption. As a consequence, the non-business use of energy by charities will also not be subject to the levy.³⁶

³¹ *Fourth Report : The Pre-Budget Report 1999: Pesticides, Aggregates and the Climate Change Levy* , 29 February 2000 HC 76-I 1999-00 para 67

³² *Budget 2000* HC 346 March 2000 paras 6.15-6.40; Inland Revenue/HM Customs & Excise Budget press notice REV/C&E4, 21 March 2000

³³ HC Deb 2 May 2000 cc 86-119. The remaining provisions in the Finance Bill dealing with the levy were debated in Committee: SC Deb (H) 16-18 May 2000 cc 184-304

³⁴ HC Deb 2 May 2000 cc 86-91

³⁵ HC Deb 2 May 2000 cc 93-94

³⁶ HC Deb 2 May 2000 c113

He went on to suggest that the long lead-time between the Marshall report, and the introduction of the new tax, had allowed a successful consultation exercise, and given business ample time to change their energy consumption, to mitigate the impact of the charge:

All the proceeds of the levy will be recycled to business, but beyond that, the levy will indeed be broadly neutral between the manufacturing and services sectors. That means that the impact of the combination of payments under the levy, the reduction in employer's national insurance contributions and the additional support for energy-saving measures in the £150 million fund on the manufacturing sector or on the services sector will broadly balance each other out ... By the time the levy comes into effect next year, it will have been two years since it was announced, and longer still since Lord Marshall's report. That long period of preparation was adopted to ensure that we could get the details right and to enable everybody involved to prepare adequately for the change. That has been achieved.³⁷

4 The first years of the levy (2001 – 2005)

4.1 Estimating the impact of the levy

The 2001 Budget confirmed the introduction of the levy from 1 April 2001, and the number of sectors to benefit from the 80% discount:

The climate change levy will come into effect on 1 April 2001 and will apply to non-domestic use of energy ... The products subject to the levy are electricity, gas, liquefied petroleum gas (LPG) and solid fuels, at the following rates:

Electricity	0.43 pence per kWh
Gas	0.15 pence per kWh
LPG	0.96 pence per kg (equivalent to 0.07 pence per kWh)
Solid fuels	1.17 pence per kg (equivalent to 0.15 pence per kWh)

To avoid increasing fuel poverty and to encourage a more sustainable transport system the levy will not apply to energy used by the domestic sector and public transport. There will also be an exemption from the levy for energy generated from 'new' forms of renewable sources such as wind and solar power, and electricity produced in 'good quality' combined heat and power (CHP) plants.

To protect the competitiveness of UK industry, the Government has recognised the need for special consideration of energy-intensive industries exposed to international competition. An 80 per cent discount on the rate of the levy is available to energy-intensive sectors that agree challenging targets with Government to increase energy-efficiency and reduce emissions.

Targets have now been agreed with 44 sectors eligible for CCL negotiated agreements. These challenging targets will deliver reductions in emissions of at least 2.5 MtC a year by 2010 - equivalent to about 50 per cent of all emissions reductions resulting from the levy package. Sector level agreements have been signed with 29 sectors including steel, chemicals, paper and cement, and are rapidly being concluded

³⁷ HC Deb 2 May 2000 c115

with the others. Applications from over 7,000 prospective participant companies or sites have already been received and these are being processed so that applicants will benefit from the lower rates when the levy is introduced.³⁸

At this time the rate of NICs paid by employers on employee earnings was cut from 12.2% to 11.9%. In the *Pre-Budget Report* in December 2005, the Government noted that this tax cut had been worth £1.2 billion in 2004/05, "compared with £0.8 billion from the levy in the same year."³⁹ (It should be noted that the rates of NICs for both employees and employers have been increased since the introduction of the levy: in April 2003 the rate of secondary Class 1 NICs was set at 12.8%, which is the current rate.)

The impact of the levy on business remained a controversial issue in the tax's first year, and was quite often raised in PQs; an example is given below:

Mr. Hammond: To ask the Secretary of State for Trade and Industry if she will make a statement on the impact of the climate change levy on British industry. [10990]

Mr. Wilson: The climate change levy only became operational in April this year and the first payments are still being received by Customs and Excise. It is too early to assess its impact, but the levy is operating in the planned revenue neutral manner.

The impact on any specific sector will depend on a number of factors including;

- The future energy consumption of firms in the sector and the use they make of levy funded energy efficiency support.
- Employment levels in those sectors and the benefits received from the levy funded reduction of national insurance contributions.
- The number of energy intensive firms in that sector that are eligible to receive a discount on the main rates of the levy by signing up to an energy efficiency agreement.
- What use firms in that sector make of electricity generated from levy exempt 'new' renewable sources of energy and combined heat and power.⁴⁰

In the 2002 Budget the Government announced that the rates of the levy would be frozen, and two types of energy generation would be made exempt: specifically, electricity from CHP plants sold and electricity from coal mine methane (CMM), sold via licensed electricity suppliers.⁴¹ The following year the Government proposed to extend the eligibility criteria for climate change agreements;⁴² additional criteria were published in July 2004, to extend the scheme to businesses which met an energy intensive threshold.⁴³ State aids approval was granted in autumn 2005, and agreements to cover four sectors were completed in January 2006. The UK also obtained approval to include horticulture in this scheme, so that the temporary 50% discount was withdrawn from the sector from 1 April 2006.⁴⁴

³⁸ HC 279 March 2001 paras 6.20-23

³⁹ Cm 6701 December 2005 p 155

⁴⁰ HC Deb 30 October 2001 c584W

⁴¹ *Budget 2002* HC 592 April 2002 para 7.12

⁴² *Budget 2003* HC 500 April 2003 paras 7.11-2

⁴³ HM Customs & Excise Business Brief, 23 July 2004

⁴⁴ *Budget 2006* March 2006 HC 968 pars 7.36-7

At the time of the 2005 Budget, the Government published research it had commissioned on the initial impact of the levy on emissions: its conclusions were summarised in the following written answer:

Dr. Cable: To ask the Chancellor of the Exchequer what the Government's assessment is of the impact of the climate change levy on carbon emissions; and how much of this impact it estimates is attributable to (a) the price effect and (b) other effects consequent upon its introduction.

John Healey: The Government commissioned Cambridge Econometrics to carry out an independent evaluation of the Climate Change Levy (CCL). This evaluation, "Modelling the initial effects of the climate change levy", concluded that the levy is effective and should save over 3.5 million tonnes of carbon per annum by 2010. In particular, Cambridge Econometrics concluded that the announcement effect of CCL in Budget 1999 will, in combination with the price effect, have reduced energy demand in the commerce and public sector by 14.6 per cent. by 2010. Cambridge Econometrics attribute most of the emissions savings to the announcement effect. However, because these two effects interact in CE's model, it is not possible to apportion precise carbon savings to either effect in isolation.⁴⁵

The review was over 100 pages long and is available from the department's site,⁴⁶ though the Budget report gives a more detailed summary, reproduced overleaf.⁴⁷

The review was also discussed in a paper published alongside the 2006 Budget, which drew together the different threads to the Government's approach to reducing business emissions: that is the levy and climate change agreements, along with enhanced capital allowances for energy-saving technologies, and funding for the Carbon Trust.⁴⁸ The paper projected that taken together, these measures would cut emissions by 6 MtC a year, "accounting by 2010 for 40 per cent of the UK's total carbon reductions."⁴⁹

⁴⁵ HC Deb 8 February 2006 cc 1248-9W

⁴⁶ http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageOnlineServices_ShowContent&propertyType=document&columns=1&id=HMCE_PROD1_023971

⁴⁷ HC 372 March 2005 p159

⁴⁸ HM Treasury, *The climate change levy package*, March 2006. This is available on the department's site at: http://www.hm-treasury.gov.uk/climate_change_levy_package.htm

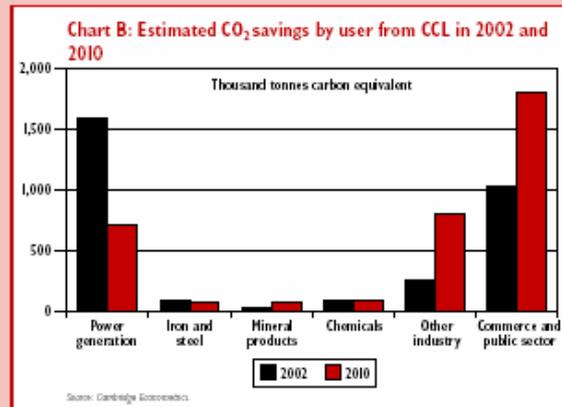
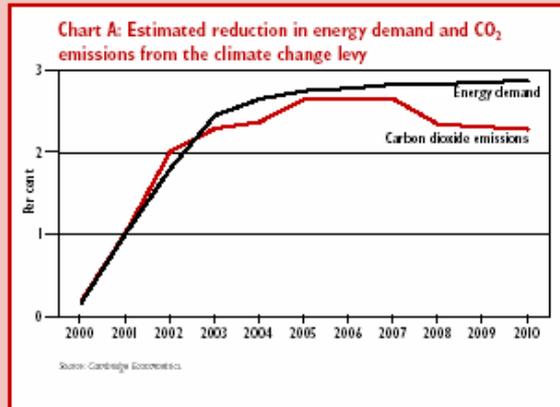
⁴⁹ *Budget 2006* HC 968 March 2006 pp159-160

Box 7.2: Assessment of the climate change levy package

The climate change levy (CCL) is part of a package of measures to tackle climate change, including climate change agreements (CCAs), enhanced capital allowances for energy-saving technologies, and support for business energy efficiency and renewable energy technology through the Carbon Trust. An independent evaluation by Cambridge Econometrics has examined the effect of the levy since its announcement in Budget 1999 and introduction in April 2001. The main conclusions are that:

- CCL should deliver estimated annual carbon dioxide savings of over 3.5 million tonnes of carbon (MtC) in 2010 – well above the 2 MtC figure forecast at the time of its introduction;
- the announcement of CCL in Budget 1999 is estimated to have reduced energy demand by 1.2 per cent in 2000 in the commerce and public sector. This reduction in energy demand is estimated to grow to 13.8 per cent in 2003 and 14.6 per cent in 2010 in combination with price effects; and
- CCL is estimated to increase good quality combined heat and power capacity by 1.2 gigawatts of electricity by 2010, and to encourage renewable energy sources, because generation from these sources is exempt from the levy.

Chart A illustrates how modelled energy demand and carbon dioxide emissions are reduced through to 2010. Chart B shows carbon dioxide savings from the CCL by fuel user. The biggest saving is in the commerce and public sector. Savings from CCL are lower in the industrial sectors, which generally benefit from the discounts from CCAs.



Introduced as part of the CCL package, CCAs allow 80 per cent discounts on the CCL for energy-intensive sectors that agree to make energy saving improvements. Cambridge Econometrics estimates that a further 0.5 MtC per year would be saved in 2010 if the levy were applied at the full rate across all business sectors. In contrast, audited findings from the sectors that signed CCAs suggest that the absolute saving against baselines was 4.5 MtC for the first target period of 2001 to 2002.^a This shows that CCAs have been effective, yielding greater savings than through simply applying the full rate CCL to all business sectors.

^a Climate change agreements results of the first period assessment, Future Energy Solutions, April 2003 (revised July 2004). Available at www.defra.gov.uk

4.2 Criticisms of the levy

Over its first years of life, there have been two major criticisms made of the levy – first, that the levy itself is misconceived, and should be replaced by a carbon tax, and second, even if the levy is a sensible approach to cutting emissions, it has had a disproportionate impact on the manufacturing sector. These criticisms tend not to overlap, though the Liberal Democrats Treasury spokesman, Vincent Cable, linked the two, when provisions to extend the scope of the climate change agreements, initially announced in Budget 2004, were introduced in January 2006:

My party shares the Government's concern for measures that reduce carbon emissions and that take a firm position on climate change—that is agreed. We agree that the best way of tackling the problem is through market instruments such as environmental taxes and traded permits rather than through complex controls, and we agree that the measures should be tax neutral. Broadly, the climate change levy is tax neutral, as the revenue goes back through national insurance rebates.

The point of disagreement is that we take the view that a proper carbon tax would be a much better way of dealing with the situation ... A carbon tax would be applied upstream—at the wellhead and coal pit—and the tax would then flow down through costs. There would be a clear incentive to economise on energy use and to choose the least carbon intensive fuel throughout the system. There would be no need for further Government intervention. Instead, the Government have gone for a much more discriminatory system that is targeted on the manufacturing industry. The difficulty is that manufacturing industry is also the part of the economy that is involved in international trade and, therefore, competitiveness is affected. To accommodate that problem, the Government have decided to give the industry extensive rebates, and that in turn drives a large hole through their carbon objectives so that they then have to have complicated climate change agreements. That is an elaborate structure to achieve objectives that could be achieved in a much simpler, more direct and less complex way through a carbon tax.⁵⁰

At another point in the debate Nick Hurd MP referred to “constructive criticisms of the levy” made by “sources of comment as diverse as the House of Lords Select Committee on Economic Affairs and the Institute for Public Policy Research.”⁵¹ In their report on climate change, the Committee made the case for a carbon tax to replace the levy as follows:

International carbon taxes

138. One approach not based on setting further emissions targets would be an internationally harmonised carbon tax. The advantages of such a tax are:

- it raises the price of emissions;
- it could be introduced only after a per capita income threshold has been reached, avoiding any initial rejection of the measure by developing countries but gradually bringing them into the agreement as their development proceeds;
- it could be based on consumption;
- it avoids tariffs in relation to trade between parties to the agreement, but with border tax adjustments for trade between participating and non-participating countries; and

⁵⁰ Fourth Standing Committee on Delegated Legislation, *Draft Climate Change Agreements (Energy-intensive Installations) Regulations 2006*, 11 January 2006 cc 12-13

⁵¹ *op.cit.* c 10

- it avoids potential large changes in permit prices which can have a detrimental effect on investment decisions. The tax remains constant, or rises steadily over time, and emissions adjust.

139. The arguments against international carbon taxes are well known. For example, taxes may fail to achieve quantitative goals if governments fail to estimate accurately the response of emitters. Varying the tax as information about such responses evolve is one option, but this may only reinforce the uncertainty that emitters face. However, the political prospects of a harmonised international tax may be remote. For example, the European Union was singularly unsuccessful in introducing an EU-wide energy/carbon tax. But this should not prevent unilateral action by individual nations or groups of nations.

140. We share the criticisms expressed by some of our witnesses that the UK's current "climate tax", the Climate Change Levy, is anything but a carbon tax. It is an energy tax and the tax rate does not vary directly with the carbon content of fuels. It is not applicable to transport or households, and it offers electricity generators no incentives to switch between low and high carbon fuels. Further, it is associated with numerous exemptions and links to Climate Change Agreements which themselves may have secured illusory emission reductions due to "hot air" trading. **We therefore urge a thorough review of the Climate Change Levy regime, with the aim of moving as fast as possible to replacing it by a carbon tax.**⁵²

In its response, the Government reiterated its argument that the levy had been designed as a "downstream" energy tax "levied by utilities at a relatively late stage in the distribution chain, in order to avoid taxing the domestic sector".⁵³ Similarly, when the then Chancellor, Gordon Brown, was asked about this issue, when he appeared before the Treasury Select Committee in July 2005, Mr Brown said, "this was, if I may say so, the debate that took place at the time of the introduction of the Climate Change Levy as to what we actually did and what some people wanted, which was simply a carbon tax", going on to flag the Government's support for the Carbon Trust, and its interest in the potential for carbon capture and storage.⁵⁴

In October 2005 the Institute for Public Policy Research (IPPR) published a report on the UK's target for CO₂ emissions for 2010, arguing that "there is a strong case for restructuring and increasing the rates of [the levy], which have not been changed since [it] was introduced ... On the basis of CO₂ emissions, the CCL rate for gas is higher than for LPG and nearly double that for coal ... It does not provide an incentive to switch to lower carbon fossil fuels, which is part of the reason that coal use increased after its introduction."⁵⁵ The authors proposed two changes to CCL rates:

The first step is that the rates for coal and LPG should be increased to match the rate for gas on the basis of CO₂ emissions. This would provide an incentive to switch to lower carbon fuels. In the case of electricity, the rate should vary according to the fuel mix of the supplier, based on CO₂ emissions. This would favour investment in new cleaner coal technologies that produce more electricity per tonne of coal burned, as well as renewable electricity and efficient gas powered stations.

⁵² *Second report: the economics of climate change*, 6 July 2005 HL 12 2005-06 pp 67-68

⁵³ *Third Report* 28 November 2005 HL 71 2005-06 p 24

⁵⁴ *Oral evidence: G8 and other international issues - 19 July 2005*, 28 September 2005 HC 399-i 2005-06.

⁵⁵ Tony Grayling et al., *Climate commitment: meeting the UK's 2010 CO₂ emissions target*, IPPR October 2005 p16. The report can be downloaded in full from:
<http://www.ippr.org.uk/publicationsandreports/publication.asp?id=318>

The second step is that the rates should be further increased towards the estimated social costs of emissions at £70/tCe (DEFRA 2002).⁵⁶ This would be consistent with the polluter pays principle. Together, these reforms would be likely to at least double the revenue from CCL. The extra revenue should be earmarked for publicly funded climate mitigation measures, including business energy efficiency programmes, [elsewhere in this report].⁵⁷

The report opposed the idea of replacing the levy with a domestic energy tax: “analysis by the Policy Studies Institute suggests that a domestic energy tax would be likely to exacerbate fuel poverty, even with full recycling of the revenue to increase welfare benefits.”⁵⁸ The authors conceded that critics had argued that the levy was not “a true carbon tax”, mentioning work by Professor David Pearce at University College, London. In this, Professor Pearce makes some interesting comments on the way in which the levy was introduced, and an extract is reproduced below:

How far is the climate change levy effective? The issue really reduces to asking how effective it is relative to what the alternative measure might have been. Different commentators use different counterfactuals, with most believing that a ‘pure’ carbon tax would have been better. In contrast, the levy is perversely related to the carbon content of fuels – gas being taxed more heavily in terms of carbon content, than coal. The electricity generators have no incentive to switch between fuels by carbon content because the tax is levied downstream rather than upstream. Coverage is limited because of the exemption of households, who must nonetheless bear some incidence of the tax, and transport which is subject to other tax measures.

The climate change agreements appear to have been very successful with over-compliance with targets even in the first year or so of operation. Others believe this reflects the ‘soft’ nature of the targets from the outset, with the system being largely ‘captured’ by industry. What is clear is that the levy’s design very much reflects the political economy considerations of government. A pure tax would have come into conflict with government goals concerning household vulnerability, competitiveness concerns and the sensitivity of some sectoral interests.

Is it a good tax? It has made a contribution to the UK climate change targets, but this measure of effectiveness assumes that the alternative was doing nothing. It may well have fared better than some outright regulation measures, but whether it has done better than a pure carbon tax is very much open to debate. The problem, then, is one of the counterfactual against which the levy is compared.⁵⁹

Other critics of the levy have focused on its impact on industry, and in particular, manufacturing. Nigel Evans raised the issue at Treasury Questions in May 2005, noting that the “Trade and Industry Committee has asked the Government to review the workings of the climate change levy to help manufacturing industry in this country during its difficulties ... [a] plea ... backed by the Engineering Employers Federation. How many more manufacturing jobs will be lost in this country before the Government do something about the climate change levy?”⁶⁰ In their report on fuel prices published in July, the Committee argued that the

⁵⁶ DEFRA (2002) *Estimating the social cost of carbon emissions*, by Richard Clarkson and Kathryn Deyes

⁵⁷ *Climate commitment*, IPPR October 2005 pp 16-17

⁵⁸ *op.cit.* p17. The work cited here was, Ekins, PI and Dresner S (2004) *Green taxes and charges: Reducing their impact on low-income households*, Joseph Rowntree Foundation

⁵⁹ *The United Kingdom Climate Change Levy: a study in political economy*, OECD February 2005 p 5

⁶⁰ HC Deb 26 May 2005 cc 862-3

Government should consider reducing the scope of the levy, “to help UK industry during its present difficulties”:

107. More generally, several witnesses warned that the price of electricity in the UK was likely to increase further because of the various environmental measures due to come into force shortly, particularly the Large Combustion Plant Directive and the EU Emissions Trading Scheme.⁶¹

108. Although some individuals who wrote to us felt that the electricity price rises for consumers were unjustified, the vast majority of our witnesses accepted that they were a direct result of the increase in the cost of the main generating fuels, coal and—especially—gas. We, too, believe that electricity producers have not been profiteering. The variations in price rises from company to company can be explained in part by the differences in their portfolios of generating plant and the degree to which they have been able to offset the gas price rises by changing to cheaper fuels; and in part by the different commercial approaches they have adopted (whether they have chosen to increase prices across the board or to shelter some customers from the full effects of the price rises, for example).

109. However, the effect of the price increases on customers has been significant, and further increases are inevitable, given that the cost of environmental legislation has yet to be passed through to customers. We note that the cost of the Large Combustion Plant Directive and the EU Emissions Trading Scheme will add to the existing cost of the Renewables Obligation and the Climate Change Levy. When our predecessors first considered the Climate Change Levy, they reported industry's fears that they would be subject to both the Levy and, shortly afterwards, an emissions trading scheme.⁶² We noted that even Greenpeace considered that the Levy should be used to ensure a continuous, planned, gradual rise in electricity prices and should not impose additional costs when electricity prices had risen for other reasons.⁶³

Electricity prices have now risen in response to increases in fuel costs, and will rise further when the costs of other environmental legislation are passed through. Although fluctuations in fuel costs will occur, over the medium to long-term electricity is unlikely to be as cheap in real terms as it has been over the last six years. I&C customers have considerable incentives to reduce their energy use. As a result, we think that it is now time for the Government to re-examine the operation of the Climate Change Levy, and in particular to consider the scope for reducing it to help UK industry during its present difficulties.⁶⁴

In their Budget 2005 submission the Engineering Employers Federation (EEF) had argued that the future role of the levy should be “examined urgently ... with rising energy prices forcing companies to put an increased focus on energy efficiency, and the EU Emissions Trading Scheme provoking a shift towards less carbon-intensive forms of energy generation.”⁶⁵ In September 2005 the EEF published a paper on the tax burden on UK

⁶¹ Qq 84-85, 283-284 (EEF), App 2 (Centrica), para 4.2 The EEF, on the basis of a report it commissioned from the consultants Global Insight on What determines power prices in key European markets? (September 2004), believes that it is already possible to detect some impact of the EU ETS in the UK, as generating companies are beginning to include in their pricing the 'opportunity costs' of the carbon permits issued under the scheme - in other words, they are adding to the cost of gas the value of the tradeable permits.

⁶² Trade and Industry Committee, *Ninth report: Impact on industry of the Climate Change Levy*, 19 July 1999 HC 678 1998-99

⁶³ *Second report: Security of Energy Supply*, 7 February 2002 HC 364 2001-02 para 117

⁶⁴ *Twelfth report: fuel prices*, 1 June 2005 HC 279 2004-05 pp 44-45. The Government's response to the report was published July (*Second Special Report*, 21 July 2005 HC 363 2005-06).

⁶⁵ EEF, *Maintaining our competitiveness: Budget 2005 representations to HM Treasury*, February 2005 p 23

manufacturing, which acknowledged the research published by the Government on the levy's impact on emissions, but went on to suggest that the levy "has led to competitive disadvantages for manufacturing with no significant impact on emissions"; an extract is given below:

A government-commissioned evaluation by Cambridge Econometrics of the levy estimates it will result in a 2.3 % cut in carbon dioxide emissions by 2010, compared with 2002 levels. The bulk of this comes, not from manufacturing, but from the commercial and public sectors where initial energy savings have been easier to make without major restructuring. Industry sectors, excluding the basic metals and chemicals sectors, are expected by 2010 to have made only a 0.51 % cut in carbon dioxide emissions against 2002 levels according to Cambridge Econometrics.

The fact that energy prices have also been rising recently, independently of the levy, without a corresponding fall in emissions demonstrates that competitiveness and other structural barriers may be preventing the price effect of higher energy costs translating into emission reductions. In fact, the government's environment accounts show that greenhouse gas emissions from manufacturing (particularly metal industries) have actually risen by 3% since 2003. In previous periods of restructuring and reducing energy-intensiveness, industry actually made more progress in reducing emissions, including in the period 1990 to 2002 when they fell by 28.5%.

The climate change agreements appear to have been more successful. Companies with agreements have often significantly overachieved their energy reduction targets, although some of this improvement may also have been driven by structural changes within industries. Evaluations by the Tyndall Centre on climate change show that the incentive provided to reduce emissions by the combination of the levy and agreements may have outperformed the levy on its own in economic terms (by avoiding additional cost pressure from the tax on margins) and in environmental terms (greater emission reductions and potentially earlier investment in energy-saving technology). However, the exclusion of many manufacturers from the agreements is hindering their ability to make meaningful energy sectors.

The use of reduced NICs to make the levy revenue-neutral has also caused problems for manufacturers as it is unlikely to balance out the rise in energy costs caused by the levy for firms in energy-intensive, but not labour-intensive, sectors. The investment cost of introducing new energy-efficient capital equipment and processes is also higher for more energy-intensive sectors and is not addressed through the NIC cut. The energy efficiency programmes run through the Carbon Trust are meant to help before the programmes are integrated into the mainstream of address this. However, there is still some way to go before the programmes are integrated into the mainstream of UK manufacturing and it is unlikely that many will recoup the cost of the levy through this channel.⁶⁶

5 Recent developments

In the 2006 Budget the Government announced that from 1 April 2007 the rates of the levy would be increased in line with inflation each year. The announcement received relatively little comment in the House, or the press, although the director general of the Engineering Employers Federation, Martin Temple, was quoted by the *Financial Times* as saying, "There

⁶⁶ *Our tax challenge: how to address the tax burden on UK manufacturing*, September 2005 pp 24-25

is a massive anomaly in continuing to penalise manufacturers with planned increases in the climate change levy ... while petrol duties continue to be frozen. While some potentially useful measures were announced, we need more focus on measures that are effective rather than politically attractive.”⁶⁷ The rise in rates was the subject of a short debate at the Committee stage of the Finance Bill that year: on this occasion, Sir George Young, speaking for the Conservatives, said that he had “no difficulty with the principle” behind the increase. In response the then Financial Secretary, John Healey, said, “having seen a period of bedding in of the new levy since its introduction, the Chancellor’s decision and judgment is that now is the time to seek to revalorise the climate change levy. Given the pressure on fuel costs and energy prices, it is important both to signal that intention so that businesses can recognise that that is coming and take any steps that they might wish to improve their own business efficiency, and to delay changes until 1 April 2007.”⁶⁸

Duty rates have been increased twice since then, to keep in line with inflation: on 1 April 2008, and on 1 April 2009.⁶⁹ As a consequence of these increases, the current rates are:

Taxable commodity	Rates
Electricity	£0.00470
Gas supplied by a gas utility or any gas supplied in a gaseous state that is of a kind supplied by a gas utility	£0.00164
Any petroleum gas, or other gaseous hydrocarbon, supplied in a liquid state	£0.01050
Any other taxable commodity	£0.01281

When the first of these increases was debated in Committee, Paul Goodman, speaking for the Conservatives, suggested that in the longer-term, the levy should be reformed:

The CCL undoubtedly has a blunt effect; it is essentially an energy tax, levied on the supply of energy to business, paid downstream by energy consumers. It has been frequently argued, by us and others, that a structure that first establishes an energy tax, then pays out a series of rebates to businesses and then introduces a set of climate change agreements that enables firms to escape from the structure of the taxation of rebates that the Treasury has established in the first place is not especially transparent. We want to see the CCL reformed into, or replaced by, a carbon levy that is more closely linked to carbon emissions. To borrow a phrase that I think was once used by Rab Butler, the climate change levy is the best climate change levy that we have at the moment and therefore we do not intend to oppose the clause.⁷⁰

In response, the then Financial Secretary, Mr Healey, said, “the levy itself was designed less to have an impact on generators and more to encourage greater energy efficiency among energy users, particularly business users. To that extent, it is succeeding in the specific aims that we set for it.”⁷¹

The following year both Jeremy Browne, for the Liberal Democrats, and David Gauke, for the Conservatives, argued for changing the levy from an energy tax to a carbon tax; in response

⁶⁷ “Greenhouse gas levy rises for first time since launch”, *Financial Times*, 23 March 2006

⁶⁸ SC Deb (A) 20 June 2006 cc 759-60

⁶⁹ HM Revenue & Customs Budget Notes BN68, 21 March 2007 & BN84, 12 March 2008

⁷⁰ Public Bill Committee (Finance Bill) 10 May 2007 cc103-4

⁷¹ *op.cit.* cc104-5

the then Economic Secretary, Kitty Ussher, argued that the levy “has been incredibly successful as devised.”⁷²

The Minister’s assessment was challenged by a report on the levy and climate change agreements, published by the Environmental Audit Committee in March 2008.⁷³ The Committee acknowledged the relative importance of these measures to the Government’s approach to cutting emissions:

At the time the revised UK Climate Change Programme was published, in March 2006, the climate change levy (CCL) and climate change agreements (CCAs) were projected to be two of the three most important contributions towards the Government’s 2010 target of a 20% reduction in UK CO2 from 1990 levels. Since then, projections of their impacts have been reduced slightly, but the CCL still features as the second biggest measure on its own, with a projected annual saving of 12.8MtCO2⁷⁴ (million tonnes of carbon dioxide) in 2010 ... Between its announcement in 1999 and the end of 2005, the Levy alone is estimated to have saved a cumulative total of some 60.5MtCO2.⁷⁵ The Government projects that the Levy and Agreements together will be responsible for around a third of all the carbon savings achieved by UK policy by 2010.⁷⁶ ...

Table 1 The CCL and CCA were two of the top three policies in the 2006 Climate Change Programme

2006 CCP measure (Top five in order of size of reductions in 2010)	Estimated annual reduction in 2010 (MtCO ₂) ¹
Phase II of the EU ETS	29.3
Climate Change Levy	13.6 (since reduced to 12.8) ²
Climate Change Agreements	10.6 (since reduced to 7) ³
Renewables Obligation	9.2
Voluntary Agreement package (including reform of company car tax and graduated Vehicle Excise Duty)	8.4

Notes:

¹ All figures originally expressed in million tonnes carbon. Here converted into million tonnes carbon dioxide by multiplying by 44, and dividing by 12.

² The estimated savings from the CCL are taken from a 2005 evaluation by Cambridge Econometrics. The report assumed the Levy would rise with inflation from 2005, rather than 2007 as has happened; thus this estimate was slightly overstated. The Government now uses a revised savings estimate of 3.5 MtC (12.8MtCO₂) in 2010.

³ The estimated contribution of the Agreements has been reduced because of rising market energy prices: this suggests the Agreements’ energy efficiency targets would have had less impact in themselves, given that higher energy prices could be assumed to drive energy efficiencies and carbon savings in any case.

Sources: *Climate Change: The UK Programme 2006*, Defra, March 2006; NAO, *The Climate Change Levy and Climate Change Agreements*, August 2007

⁷² Public Bill Committee (Finance Bill) 15 May 2008 c258

⁷³ *Second report: Reducing carbon emissions from UK business: the role of the climate change levy and agreements*, 10 March 2008 HC 354 2007-08

⁷⁴ To be precise, the figure originally published by the Government was 3.5MtC (million tonnes of carbon). Recently, the Government has begun expressing all carbon emission figures in terms of carbon dioxide; this report follows suit, converting original Government figures from carbon into CO2 where necessary. One tonne of carbon is contained in approximately 3.67 tonnes of carbon dioxide; 3.67 (or more precisely, 44/12) is the ratio of the molecular weight of carbon dioxide to the atomic weight of carbon. To convert an original savings figure of 3.5MtC into CO2, one multiplies by 44 and divides by 12, yielding 12.83 MtCO2.

⁷⁵ HC Deb, 24 July 2007, col 1000W

⁷⁶ “Speech by the Rt Hon Gordon Brown MP, Chancellor of the Exchequer, to United Nations Ambassadors, New York”, HM Treasury press release 31/06, 20th April 2006

However, it went on to note that most of the emissions savings from the levy had come “from the effect its announcement had on raising awareness of the potential for energy savings”:

Before the Levy came into effect, the Treasury estimated in 2000 that it would reduce annual emissions by some 7.3 MtCO₂ by 2010, based on projections of its effects on energy prices and hence demand. The most important attempt so far, however, to tease out the effects of the Levy from other factors and estimate its impacts on carbon emissions was carried out in 2005 by Cambridge Econometrics (CE) ... This study drew on actual energy and emissions data in the period since the Levy had been announced, comparing this with projections of what business as usual (BAU) energy use would have been if the Levy had not existed ...

The study's conclusions were that the Levy itself (i.e., independent of other factors, including the impacts of the CCAs) led to a reduction in annual emissions of 11.4 MtCO₂ in 2002 from business as usual projections; and that by 2010 these annual savings would increase to 13.6 MtCO₂. In reaching this latter conclusion the study assumed that the Levy would be raised in line with inflation from 2005, rather than from 2007 as has actually happened: accordingly, this estimate has since been revised downwards to an annual saving from BAU of 12.8 MtCO₂ in 2010. This is the savings estimate endorsed and relied on by the Government.

These estimated carbon savings were attributed by Cambridge Econometrics to two separate factors: the ‘announcement effect’ and the ‘price effect’. The second of these is straightforward; as the NAO paraphrases,⁷⁷ the price effect “recognises that from 2001 the Levy made energy more expensive and should therefore have reduced demand. Higher prices affect decisions regarding output and investment.” The announcement effect is more interesting; this “assumes that simply the announcement of the Levy in 1999 focused the attention of businesses on achieving energy efficiencies. The result was a reduction in energy demand even before the Levy raised energy prices in 2001.”

On this, Professor Paul Ekins, one of the lead authors of the Cambridge Econometrics study, told us:

“From looking at both the negotiation process for the Climate Change Agreements and the very long lead-time that went into the actual implementation of the Climate Change Levy—a full two years between the report of the Marshall Commission and when the tax was actually levied (during which time the CBI waged an absolutely relentless campaign against the Climate Change Levy, which I remember very well)—there was an enormous information effect, such that with this issue of energy prices, [...] we found boards taking an interest in this issue for practically the first time in their lives. It was no surprise to me to find that, in the event, they discovered they could actually save quite a lot of energy in a cost-effective way, and they then went about and did that.”

The NAO explained that the carbon savings estimated by Cambridge Econometrics are different to those in the Treasury's 2000 study for essentially two reasons. First, the Treasury only took the price effect of the Levy into account, whereas CE in addition estimated the impacts of the announcement effect. Second, CE gave a different weight to the price effect than the Treasury. Most interestingly, Cambridge Econometrics attributed most of the impact of the Levy to the announcement effect rather than the

⁷⁷ [In July 2006 the Committee asked the National Audit Office (NAO) to carry out a study into the effectiveness of the CCL and CCAs, which it published in August 2007, following publication of the third set of biennial results from the CCAs. The results are discussed on p9 of the report.]

price effect. In other words, according to the evaluation of the Levy relied on by the Government, most of the impacts of the CCL were already established before the policy actually came into effect in 2001, and have only marginally increased since then.⁷⁸

In its response the Government refuted the implicit argument that the levy now contributes little to its ambitions for emission reductions:

As the independent report by CE concluded, the CCL is estimated to deliver annual savings of about 12.8 million tonnes of carbon dioxide (MtCO₂) by 2010. While the announcement effect itself has led to carbon savings, having the Levy in place provides Government with the capacity and flexibility to make further use of the price effect through variations in rates. Budget 2006 announced that Levy rates would rise with inflation in the following year, and this policy has been extended in subsequent Budgets. The Government will continue to assess the best way to encourage business energy efficiency and to ensure that the environmental effects of the Levy are maintained.⁷⁹

⁷⁸ HC 354 2007-08 para 6, 13-16

⁷⁹ Environmental Audit Committee, *Third special report*, 22 May 2008 HC 590 2007-08 p2