7 PROTECTING THE ENVIRONMENT

The Government is committed to delivering sustainable growth and a better environment. It is using a range of economic instruments to address the challenges posed by sustainable development, to tackle local environmental threats and to control and reduce emissions of the gases responsible for climate change and poor air quality. Budget 2004 describes the next steps in the Government's strategy, including:

- **new eligibility criteria for climate change agreements,** which will increase the number of businesses that can participate in the scheme, and **a freeze in the rates of the climate change levy;**
- **a package of measures to promote household energy efficiency** including a reduced rate of VAT for ground source heat pumps, and possibly for micro-combined heat and power units from 2005, and incentives for the private rented sector to invest in energy efficiency;
- **duty rates for sulphur-free fuels raised in line with inflation from 1 September 2004, the duty for ultra-low sulphur fuels set at 0.5 pence per litre above this level from the same date, an increase in rebated fuels rates, and three-year certainty for duty rates on biofuels and road fuel gases;**
- **reforms to the tax treatment of company vans and emergency vehicles,** taking 85 per cent of drivers of company vans out of the system altogether;
- **publication of the third progress report on the lorry road-user charging scheme,** which now moves the scheme into the procurement phase, and sets out decisions on key aspects of the scheme's design; and
- **reform of the aggregates levy relief scheme in Northern Ireland.**

INTRODUCTION

7.1 The Government is committed to promoting sustainable development, which is vital to ensure a better quality of life for everyone, today and for generations to come. To achieve sustainable development, strong and stable economic growth and social progress must be balanced with action to protect and improve the environment. The Government believes that economic instruments, alongside other policy levers, have an important role to play in securing this objective.

7.2 This approach is consistent with the Government's goal of promoting a productive, flexible economy. Individuals and businesses are able to choose how they respond to the incentives created by environmental taxes and economic instruments. This approach is also in accordance with the polluter pays principle, under which those that pollute more, pay more. As with all policy instruments, environmental economic instruments must be well designed to protect the international competitiveness of UK industry and take account of social objectives.

A strategy for environmental taxes

7.3 The Treasury's approach to environmental taxation was set out in the Statement of Intent on Environmental Taxation in 1997, and developed further in *Tax and the Environment: using economic instruments,* published alongside the 2002 Pre-Budget Report.[1] Sustainable development is now embodied in HM Treasury's aims and objectives, highlighting the greater weight being attached to quality of life and sustainable growth when developing policies.

7.4 The Government has made considerable progress against its environmental objectives, through the introduction of measures such as the climate change levy (CCL), the UK emissions trading scheme, and the aggregates levy, but recognises that there are more opportunities and challenges ahead. This chapter sets out the action the Government is taking to meet these challenges, by tackling climate change and improving air quality, encouraging a clean and efficient transport system, improving waste management and protecting the UK's countryside and natural resources.

TACKLING CLIMATE CHANGE AND IMPROVING AIR QUALITY

Climate change

7.5 There is strong evidence that global temperatures are rising. Average global temperatures have increased by 0.6°C over the twentieth century and nine of the ten hottest years on record occurred between 1990 and 2003. Studies of temperature trends show that these increases are unlikely to be entirely natural in origin. Temperatures in the UK followed the twentieth century global trend, with annual average temperatures warming by about 1.0°C. By the end of this century, models predict that average global temperatures will rise by a further 1.4°C to 5.8°C and UK temperatures by 2°C to 3.5°C. Sea levels are predicted to rise by between 9 and 88 centimetres.

7.6 The impacts of climate change could be wide-ranging and affect many parts of society. Some of the possible impacts of climate change in the UK include: increased weather variability causing damage to infrastructure and leading to transport disruption; reduced reliability of the energy supply; higher costs for building repairs and refurbishment; and increased flooding in many lowland areas due to more frequent river flooding and more severe storm surges.[2]

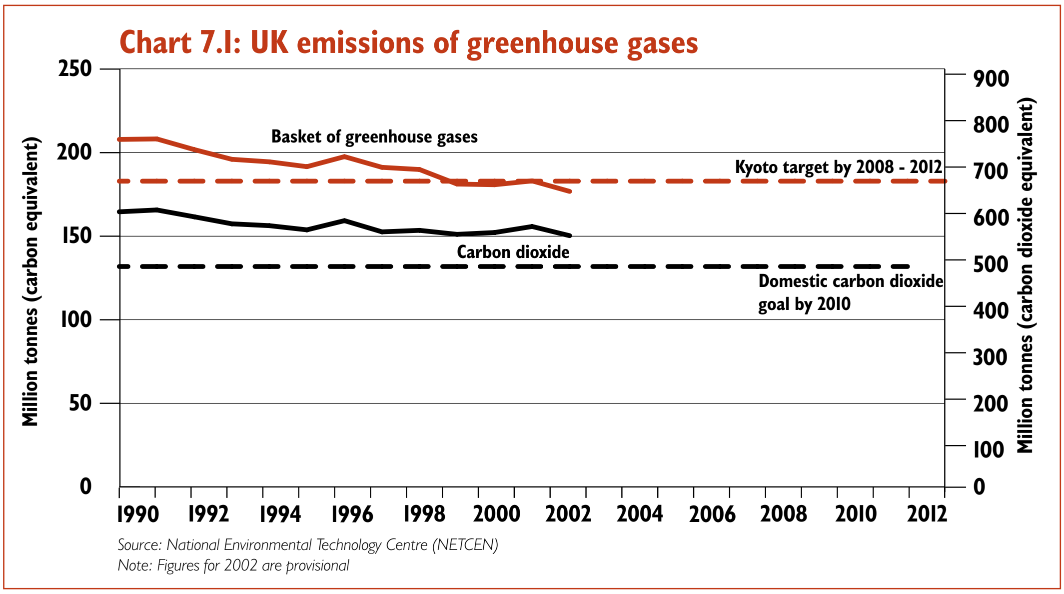
7.7 The Kyoto Protocol commits the UK to reduce its greenhouse gas emissions to, on average, 12.5 per cent below 1990 levels between 2008 and 2012. The Government also has a national goal to move towards a 20 per cent reduction in carbon dioxide emissions below 1990 levels by 2010. The Energy White Paper, *Our Energy Future – towards a low carbon economy,* sets out long-term strategies and shorter-term policies that aim to put the UK on the path to a reduction in carbon dioxide emissions of some 60 per cent by about 2050, as recommended by the Royal Commission for Environmental Pollution.[3]

7.8 Chart 7.1 sets out progress against goals on greenhouse gas emissions. Provisional data for 2002 show that UK emissions of greenhouse gases fell by 14.9 per cent between 1990 and 2002, and carbon dioxide emissions fell by 8.7 per cent during this period.

[1] *Tax and the Environment: using economic instruments*, HM Treasury, November 2002.

[2] Full details available in the *UK Climate Change Impacts Programme* at www.ukcip.org.uk/scenarios.

[3] *Our Energy Future – towards a low carbon economy,* Department for Trade and Industry, February 2003.

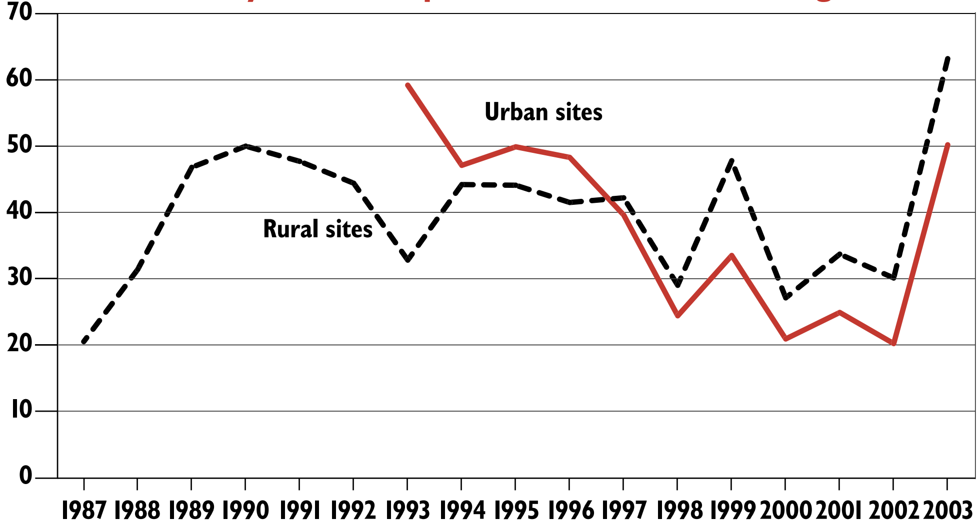


Air quality **7.9** The Government's and the Devolved Administrations' policies on improving air quality are set out in the Air Quality Strategy for England, Scotland, Wales and Northern Ireland and its first addendum.[4] These strategies set health-based air quality standards for nine key air pollutants and target dates for their achievement across the UK between 2003 and 2010.

7.10 The sources of air pollution are many and varied, ranging from industrial and road transport emissions to domestic and natural sources. As part of the UK's sustainable development strategy, the Government publishes data that shows the number of days when any one of five air pollutants is moderate or higher, and provides a broad view of air quality in the UK. Significant fluctuations in yearly figures can occur, particularly because of differences in weather conditions. Provisional results for 2003 indicate that there were more than twice as many days when air pollution was moderate or higher than in 2002. This was primarily caused by high levels of ozone, produced during last year's hot, sunny summer weather conditions. Chart 7.2 shows the trends at urban and rural sites.

7.11 The Government has more specific targets on concentrations of particular air pollutants in the UK. Initial assessments show that in 2003 the UK achieved the first three objectives for carbon monoxide, benzene and 1,3-butadiene. The Government expects to see significant reductions in these pollutants. However, on the basis of current policy measures, it is unlikely that the Government will meet its targets for nitrogen dioxide and particulates in all parts of the country, particularly in some urban areas including parts of London. In order to tackle these pollution hotspots and achieve further general air quality improvements, the Government is reviewing measures in the Air Quality Strategy and the Ten Year Plan for Transport.

[4] Available at www.defra.gov.uk/environment/airquality.



Source: NETCEN
Note: Figures for 2003 are provisional

Economic instruments to improve energy efficiency

7.12 The Energy White Paper placed energy efficiency at the heart of UK energy policy, identifying the efficient use of energy as the most cost-effective way to meet all four of the Government's energy goals – reducing carbon emissions, ensuring security of supply, maintaining competitiveness, and tackling fuel poverty. The Government is committed to putting the UK on a path towards a 60 per cent reduction in carbon dioxide emissions by the middle of the century. Economic instruments such as the CCL, and the forthcoming EU emissions trading scheme (EU ETS), have a key role in this area.

Energy Products Directive

7.13 The Energy Products Directive (EPD) came into force on 1 January 2004 and provides an EU framework for taxation on energy products, increasing the existing minimum rates of duty on hydrocarbon oils and introducing minimum rates of duty for the taxation of other energy products, including electricity, natural gas, coal and other solid fuels. The minimum rates in the EPD do not affect any of the UK's existing rates or exemptions, but will require increases in some other Member States, which will provide environmental benefits across the EU.

Climate change levy

7.14 The CCL and its associated measures seek to encourage businesses to use energy more efficiently and to reduce emissions of carbon dioxide. The levy package is expected to reduce emissions by the equivalent of at least 5 million tonnes of carbon by 2010. It is broadly revenue neutral for business and the service sector, with CCL revenues recycled back to business by means of a 0.3 percentage point reduction in employer national insurance contributions (NICs) introduced at the same time as the levy, and support for energy efficiency and low-carbon technologies via the Carbon Trust. Given business success in delivering on climate change objectives, **Budget 2004 again freezes the rates of the CCL.**

Energy products used to create energy

7.15 Energy products used to create other taxable energy products are generally exempt from the CCL, ensuring such products are not taxed twice. However, the scope of this exemption has fallen behind developments in new biofuels, such as biodiesel. **The Government is therefore extending the exemption to incorporate energy products used to create such new fuels.** Furthermore, to make it easy to provide similar exemptions in the future, provision will be made to enable such exemptions to be introduced by secondary legislation. **In addition, from 1 September 2004, fuel substitutes used in diesel engines to generate electricity will be exempt from hydrocarbon oil duty.**

Negotiated agreements

7.16 The 2003 Pre-Budget Report announced that, subject to further consultation with energy-intensive sectors and EU state aid approval, the Government would extend the current eligibility criteria for climate change agreements (CCAs). CCAs allow energy-intensive sectors to obtain 80 per cent relief from the CCL if they agree to increase energy efficiency and reduce emissions. CCAs have already delivered substantial carbon savings, almost three times more than the original target, and the Government believes that extending the eligibility criteria will deliver more.

7.17 Following consultation, **Budget 2004 announces new eligibility criteria, to be introduced once EU state aid approval is obtained.** Businesses currently eligible for CCAs will remain eligible but, in addition, the Government will extend CCAs to businesses in sectors that pass an energy intensity threshold, and can in some cases demonstrate the existence of international competition issues.

EU emissions trading scheme

7.18 The Government's preparations for the EU ETS, due to be introduced in 2005, are outlined in Box 7.1. The first phase of the EU ETS will regulate carbon dioxide emissions from installations across the EU and will include power generation, mineral oil refineries, offshore installations and other heavy industrial sectors. As announced in the 2003 Pre-Budget Report, sectors with CCAs that choose to opt in to the EU ETS instead will be allowed to retain the 80 per cent relief from CCL, without having to retain their current CCA.

Box 7.1: The EU emissions trading scheme

The first phase of EU ETS will run from 2005 to 2007. The scheme will set a cap on overall emissions from participating installations, which will be divided between these installations. Participants will then be able to buy and sell allowances to meet emissions reduction targets. In January 2004, the Government published for consultation its draft National Allocation Plan, setting out provisional allocations to participating installations over the first phase of the scheme. The Government is now considering responses to the consultation, with the aim of submitting its allocation plan to the European Commission by the end of March 2004.

In the National Allocation Plan, the Government has set an overall emissions cap in line with emission reductions projected from existing policy measures, plus an allowance of 1.5 million tonnes of carbon for the impact of the new EU ETS. On the basis of these projections, the allocation is currently consistent with an overall reduction in UK carbon dioxide emissions of 14 to 15 per cent by the end of the first phase of the EU ETS, and a 16.3 per cent reduction on 1990 levels by 2010. This approach is consistent with the UK's long-term emissions policy goals expressed in the Energy White Paper.

Investment in energy-saving technologies

7.19 Enhanced capital allowances (ECAs) for investments in approved energy-saving technologies were introduced in 2001 and currently cover more than 6,000 approved products. Administration of the ECA scheme is managed by the Carbon Trust, an independent not-for-profit company funded principally from revenues recycled from the CCL. **The Government is committed to the continued development of the scheme, and in 2004, subject to state aid approval, will introduce further ECAs for investments in energy-saving technologies.** Work to define the precise performance standards for these technologies is continuing. The addition of these groups will be worth £5 million during their first full year, 2005-06.

Household energy efficiency

7.20 The Government published a consultation document on economic instruments to promote household energy efficiency in summer 2003, as part of the Energy White Paper programme to promote more efficient use of energy.[5] The 2003 Pre-Budget Report confirmed the Government's view that there is a role for economic instruments to promote domestic energy efficiency, and that further detailed examination would be given to specific measures. Details of the Government's wider strategy for implementing the Energy White Paper is set out in Box 7.2.

Box 7.2: Implementation of the Energy White Paper targets for energy efficiency

The Government's Energy White Paper highlights the key contribution that energy efficiency can make to the Government's energy policy goals, including by reducing carbon emissions, tackling fuel poverty and ensuring security of supply. Meeting the Government's challenging goals requires improving energy efficiency twice as fast in the next twenty years as in the last two or three decades. More than half the emissions reductions needed to achieve the UK's domestic carbon emission targets – around 10 million tonnes of carbon per annum by 2010 – are expected to come from improvements in energy efficiency across the economy. The Government also believes that energy efficiency can contribute around half of the additional 15 to 25 million tonnes of carbon savings that are likely to be needed by 2020 to be on course for the long-term goal of reducing carbon dioxide emissions by some 60 per cent by around 2050.

The Government has introduced a package of policies designed to improve energy efficiency, and will publish an Energy Efficiency Implementation Plan in spring 2004. This will set out a delivery plan for the energy-efficiency strategy in the Energy White Paper. Key elements of this will include:

- **regulatory measures, such as revision of building regulations and an extension of the energy efficiency commitment;**
- **market-based mechanisms including the EU and UK emissions trading schemes;**
- **voluntary measures, including the climate change agreements and manufacturers' voluntary agreements on product standards;**
- **Government leadership on energy efficiency and procurement of energy-efficient buildings and products; and**
- **provision of information, advice and support such as that available from the Carbon and Energy Saving Trusts, and product and building energy labelling.**

7.21 Strong demand for energy-efficient products and services is often lacking, both from the household and business sectors. Economic instruments can provide useful signals, encouraging consumers to purchase such goods, and manufacturers to invest in their production. The Government will continue to negotiate with its European partners to extend the categories of permitted reduced VAT rates to include the purchase of energy-saving materials for DIY installation and energy-efficient products. In the short term these negotiations are unlikely to deliver an opportunity for VAT rates to be used to promote energy efficiency, beyond the existing provisions. However, the Government remains committed to making the fullest use of the reduced VAT rates available in EU law. To encourage the use of energy-saving technologies, **Budget 2004 introduces a reduced rate of VAT for the domestic installation of ground source heat pumps.** On micro-combined heat and power (CHP), the Government is ready to extend its support by introducing a reduced rate of VAT, taking account of the emerging findings of the field trials and will look to introduce this in 2005.

[5] *Economic Instruments to Improve Household Energy Efficiency: consultation document on specific measures*, HM Treasury, August 2003.

7.22 The Government believes that there is a strong case for providing incentives for the private rented sector to improve its energy efficiency, since landlords do not currently benefit from increasing the energy efficiency of their rented properties. **Budget 2004 announces a landlord's energy saving allowance, which provides individual private landlords with up-front relief on capital expenditure for installations of loft and cavity wall insulation in rented accommodation, including first-time installations.**

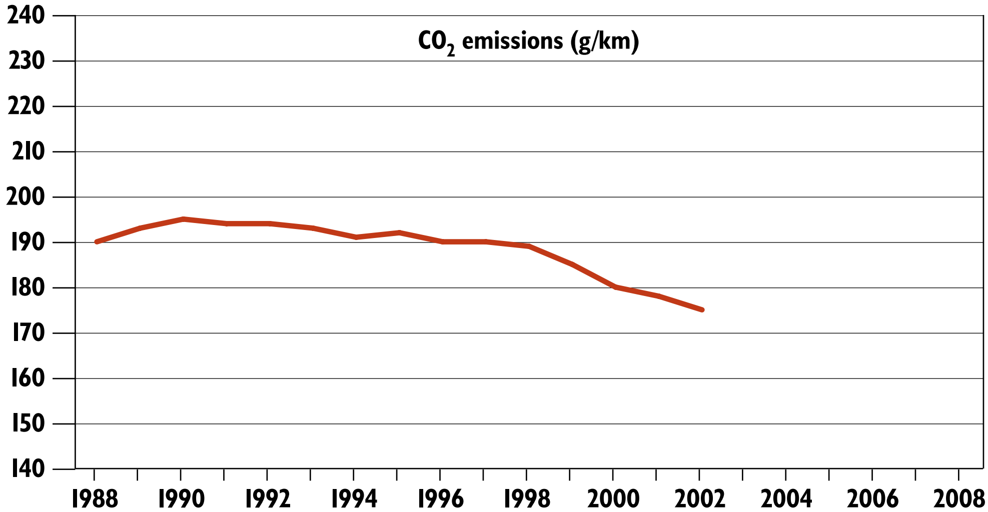
7.23 In addition, the Government will also consider the introduction of a 'green landlord scheme'. This would aim to incentivise landlords to invest, possibly through recognition of properties that achieve a sufficient level of energy efficiency.

A CLEAN AND EFFICIENT TRANSPORT SYSTEM

7.24 The Government believes that a safe, clean and efficient transport system is key to sustaining economic growth, generating higher productivity and safeguarding the environment. The significant increase over recent years in the demand for travel, a result of rising economic activity and incomes, is a challenge to the Government's transport and environmental objectives. The Government has therefore introduced a number of measures to improve the efficiency of the transport system, including support for the take-up of the most efficient fuels and vehicles, and promotion of the development of greener forms of transport and fuels.

7.25 The Government's long-term goal is to support the switch to a low-carbon economy, including zero-emissions transport. Chart 7.3 shows that average carbon dioxide emissions from new cars in the UK have fallen in recent years and are expected to fall further by 2008 with the continued impact of the voluntary agreement between the European Commission and car manufacturers, underpinned by environmentally-focused vehicle taxes.

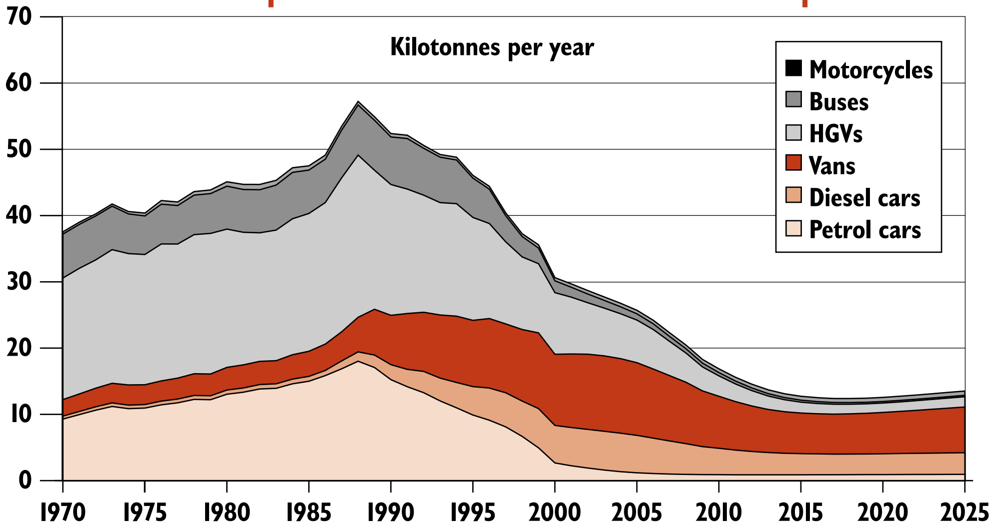
Chart 7.3: Carbon dioxide emissions from new cars



Source: Data from 1995 to 2001 based on DVLA monitoring. Data prior to 1995 estimated from average new car fuel consumption figures. The petrol average new car consumption data from Transport Statistics Great Britian. An equivalent diesel figure was calculated for 1994 at 22 per cent better than petrol fuel consumption. This figure was used for all previous years in this chart, in the absence of other data.

7.26 Progress in reducing the environmental effects of transport has been greatly aided by the introduction of progressively tighter EU standards for new vehicles and fuels, supported by the use of economic instruments and grant support such as the UK's Powershift and Clean-up programmes. Chart 7.4 shows that the combined effect of these policies has been a significant reduction in the overall emissions of key pollutants such as nitrous oxides and particulates. However, further efforts will be needed to ensure that national emissions do not start to rise again, and that further reductions are seen in urban pollution hotspots such as London.

Chart 7.4: UK particulate emissions from the transport sector



Source: NETCEN figures for the National Atmospheric Emissions Inventory (NAEI).
Note: Figures for 2001 onwards are provisional.

Road Transport

Road fuels **7.27** The Government has a long-standing and successful policy of using fuel duty differentials to encourage the take-up of less environmentally damaging fuels. Decisions on marginal fuel duty rates reflect the Government's concern with the environmental, economic and social consequences of increased use of road transport. Budget 2003 announced a deferment of the annual inflation increase of fuel duties in the light of the exceptional volatility of oil prices due to the military conflict in Iraq. The end of the conflict and the reduction in geo-political uncertainty meant that the revalorisation took place on 1 October 2003.

Fuel duties **7.28** The latest technologies for cleaner cars depend on the use of sulphur-free fuels to reduce emissions of carbon dioxide and improve local air quality. The Government has regularly demonstrated its commitment to the introduction of the cleanest road fuels through the use of duty incentives. Continuing this record, Budget 2004 confirms that sulphur-free petrol and diesel will benefit from a 0.5 pence per litre differential relative to the rates for ultra-low sulphur fuels. **Duty rates for sulphur-free fuels will therefore be raised in line with inflation (equivalent to 1.42 pence per litre) from 1 September 2004, with the duty for ultra-low sulphur fuels set at 0.5 pence per litre above this level from the same date.** The Government expects that this differential should lead to sulphur-free fuels becoming the standard specification for road fuels in the UK by the end of the year, well ahead of their mandatory introduction on 1 January 2009. This will bring significant improvements in air quality, and major savings in carbon dioxide, as the new direct-injection vehicle technology is introduced.

Alternative Fuels Framework **7.29** The Government published its *Alternative Fuels Framework* in the 2003 Pre-Budget Report. The framework sets out the rationale for Government support for alternative fuels, placing environmental benefit at its core. In recognition of the importance to investors of providing long-term certainty in the market, the framework also includes an unprecedented Government commitment to a three-year rolling guarantee on the fuel duty differentials for all alternative fuels. This structured approach to support in this area is intended to underpin further investment in the expanding area of alternative fuels.

Biofuels **7.30** Biofuels offer significant environmental benefits in terms of a reduction in the emissions of greenhouse gases and local air quality improvements. They also have the potential to contribute to security of supply and bring agricultural benefits. The introduction of the 20 pence per litre duty differential for biodiesel in July 2002 has led to expanded use of the fuel in the UK over the last two years. It now accounts for more than 25 million litres of fuel sold each year. Building on this, Budget 2004 confirms that:

- as a means of guaranteeing further stability for the sector, **the 20 pence per litre duty incentive in favour of biodiesel will be maintained until at least 2007;**
- as announced in Budget 2003, **a duty incentive of 20 pence per litre for bioethanol will be introduced from 1 January 2005.** In line with the commitment to provide rolling three-year certainty set out in the *Alternative Fuels Framework*, **the differential is also guaranteed to at least 2007;**
- the 2003 Pre-Budget Report announced that the Government was examining the use of input-based taxation to support cleaner fuels. To take this work forward, Budget 2004 announces that **the Government will be staging a series of stakeholder discussions over the summer to examine in detail the implications of input-based taxation for biofuels;** and
- to focus support further on the very best biofuels technologies, **the Government will be discussing with stakeholders the application of ECAs to support investment in the most environmentally beneficial biofuels processing plants, with a view to announcing the outcome at the 2004 Pre-Budget Report.**

7.31 The implications of these fiscal measures and other possible means of support will be included in the Government's draft Biofuels Directive implementation strategy, on which the Department for Transport (DfT) will consult shortly. The consultation will include options on complementary regulatory measures, including the option of a Biofuels Obligation for the transport sector, aimed at meeting the UK's targets for biofuels.

Road fuel gases **7.32** In the 2003 Pre-Budget Report, the Government announced a gradual reduction of the duty differential in favour of liquefied petroleum gas (LPG) over the next three years towards a level commensurate with the environmental benefits of the fuel. In line with its commitment to provide three-year rolling certainty for this and other alternative fuels, **Budget 2004 confirms that the differential for LPG will be reduced by 1 penny per litre in 2004-05, and by a further 1 penny per litre in both 2005-06 and 2006-07. The differential for natural gas (NG) will remain at its current rate, which is equivalent to 41 pence per litre, until 2007.** The Government expects that this high level of support will secure the investment in advanced NG vehicles needed to deliver the significant environmental benefits they produce compared with diesel vehicles.

7.33 The Energy Saving Trust recently reviewed its arrangements for Powershift funding for the next financial year and announced it would be limiting support to the very cleanest LPG vehicles. The Government fully supports this approach and in order to give further focus on the development of the market on those LPG and NG vehicles that offer the best environmental performance, the Government will be examining other means of incentivisation, including simplification of discounts for company car tax. Further details of these incentives will be announced at the 2004 Pre-Budget Report, with a view to implementation from Budget 2005. Box 7.3 provides details of the Government's recent consultation on future road fuel gases policy.

Box 7.3: Road fuel gases

In 1997, the Government increased the level of incentive for road fuel gases to encourage take-up of liquefied petroleum gas (LPG) and natural gas (NG) vehicles, which offer significant environmental benefits over conventional vehicles. The market has expanded rapidly since then, and more than 100,000 LPG vehicles and 1,400 LPG filling stations now operate in the UK. This has involved significant investment by industry, supported by the Government's use of economic instruments. The recent Government consultation on future road fuel gases policy acknowledged the success of the programme.[a] However, the sector still faces a number of challenges, including:

- **a tougher market for LPG, as competition from more efficient and cleaner conventional cars becomes more intense. For example, a 2005 diesel car will emit approximately 58 per cent less nitrogen oxide and 68 per cent less particulates than one built in 1997;**
- **poor quality conversions, which mean that a minority of LPG conversions on the road have poorer emissions than the original vehicle;**
- **delays in introducing the cleanest optimised mono-fuel vehicles onto the road. Motor manufacturers are already offering dedicated mono-fuel vehicles in other parts of the world, yet no vehicles are available in the UK despite a generous and long-standing duty incentive; and**
- **continued dependence of the market on excessive levels of Government subsidy, which are not commensurate with the environmental benefits. The UK will continue to have the highest level of fuel duty incentive for LPG in the world, and this will not be sustainable in the longer term.**

Both the LPG and NG sectors must meet these challenges if the fuels are to continue to provide cost-effective environmental advantages over conventional fuels and justify continuing government support. The UK's position as a leading centre of expertise in LPG engineering and growing consumer confidence in NG vehicles means it is well placed to do this. However, sustained effort from the industry will be needed to justify the Government's continuing commitment to the sector.

[a] *Road Fuel Gases and their Contribution to Clean Low-carbon Transport,* Department for Transport, HM Treasury and HM Customs and Excise, June 2003, available at www.dft.gov.uk.

Hydrogen

7.34 The Energy White Paper announced that the Government would undertake an assessment of the overall energy implications of a hydrogen economy and large-scale biomass-based fuels. This assessment is now in progress, and a website is in place to provide information and updates, and enable open access for comment and input into the assessment.[6] In addition, three first-generation hydrogen fuel-cell buses, which emit only pure water vapour, were introduced on a trial basis to the London bus network from January 2004. This pilot project, which also involves nine other European cities, will improve understanding of how the technology performs in urban settings.

Rebated oils

7.35 In July 2003, HM Customs and Excise published a consultation document, *Duty differentials for more environmentally friendly rebated oils,* which examines whether preferential duty rates for rebated oils with a lower sulphur content would deliver worthwhile environmental benefits.[7] Initial work suggested that there would be measurable environmental benefits from the introduction of low sulphur rebated oils in certain locations. Further discussion with the oil industry has highlighted the question of whether a differential alone would deliver these benefits or whether this should be coupled with regulatory

[6] Available at www.dti.gov.uk.

[7] *Duty differentials for more environmentally friendly rebated oils*, HM Customs and Excise, July 2003.

changes. The Government will therefore examine the measures that may be needed to deliver the potential environmental benefits offered by these fuels and to consider these in light of other policies, such as the UK Oils Strategy, with the intention of making an announcement about duty differentials in the 2004 Pre-Budget Report.

7.36 **Budget 2004 increases the duty on red diesel and fuel oil by 2.42 pence per litre from 1 September 2004.** This reduces the differential between rebated oils and the main road fuels by 1 penny per litre to 40.88 pence per litre, and supports the strategic approach for reducing oils fraud, described in Chapter 5.

Vehicle excise duty

7.37 The Government has introduced a series of reforms to vehicle excise duty (VED) to provide motorists with incentives to choose more environmentally-friendly vehicles and to continue the shift towards taxing vehicle usage rather than ownership. VED for cars first registered from March 2001 is based on the car's carbon dioxide emissions and fuel type. This has offered motorists the opportunity to reduce their VED by up to £95 a year by choosing less polluting cars. **Budget 2004 freezes the VED rates for all cars, vans, lorries and motorcycles.**

Company car tax

7.38 The Government continues to evaluate the carbon dioxide-based company car tax system, introduced in April 2002, to gauge its impact on consumer behaviour. The results of this initial evaluation show that the system has been successful in reducing business mileage and lower carbon dioxide emissions as a result of more fuel efficient cars, despite continued economic growth since its introduction. The initial evaluation report will be published shortly.

7.39 Following three years of increases in the rates, **the level of emissions qualifying for the minimum charge in 2006-7 will be frozen at 140 grams per kilometre.** This will give the Government further time for the behavioural impact of the system to be evaluated while providing motorists and company fleet managers with future certainty about rates.

Company car fuel

7.40 The tax system for company car fuel was reformed in April 2003 to follow the emissions basis of the company car tax system. The company car fuel benefit charge applies the same percentage as the company car charge against a set figure. In 2003-04 the figure was set at £14,400, and to allow the new system to settle, **Budget 2004 announces that this figure will be frozen for 2004-05.**

Company vans

7.41 Budget 2003 announced that the Government would consult on possible reform of the tax treatment of the private use of vans provided by employers. The consultation invited responses on simplification of shared van calculations and the use of environmentally-friendly vehicles, while taking into account fairness and modern working practices. **Budget 2004 announces a major deregulation of the employer-provided van tax rules – taking 85 per cent of those who currently pay a charge out of the system.** From 6 April 2005, a nil charge will apply to employees who have to take their van home and are not allowed other private use, and as a transitional measure, the benefit in kind charge of £500 (and £350 for older vans) will be continued for all vans where private use is unrestricted. From 6 April 2007, the scale charge for unrestricted use will be set at £3,000 with a £500 charge for employer-provided fuel. Under these new rules, basic rate tax-payers who choose to have unlimited private use of their vehicles will pay 22 per cent of £3,000, equal to £660 benefit in kind taxation from 2007. These changes do not apply to self-employed van drivers.

Emergency vehicles

7.42 Emergency service workers are often required to take their vehicles home at night so they can respond quickly to emergencies. The current rules on employees' home-to-work travel mean that there is a tax and NICs charge on this. **Budget 2004 announces that, with effect from 6 April, this charge will be removed where there is an operational requirement for emergency vehicles to be kept at home.**

Road haulage modernisation fund

7.43 The 2000 Pre-Budget Report and Budget 2002 announced a new three-year, £100 million road haulage modernisation fund (RHMF) as part of a package that included substantial reductions in VED for lorries and a freeze in fuel duties. In England, a programme of RHMF projects has been developed through the road haulage forum, and has helped industry to adopt best practice in safe and fuel-efficient driving and efficient operations, and to adapt vehicles to make them cleaner. The fund has also supported a training programme and other projects to address recruitment and retention issues. The devolved administrations undertook their own work on a fund. For example, a Scottish RHMF has been established and funded by the Scottish Executive. This has delivered grants to hauliers to enable them to make use of fuel-efficient technology and has helped fund the development and provision of training schemes aimed at tackling the skills shortage and recruitment problems faced by the Scottish haulage industry.

7.44 The three-year period of the fund has now elapsed. However, the Government is keen to allow worthwhile RHMF projects to continue, including the programme to promote safe and fuel-efficient driving, and the programme to encourage more fuel-efficient operations. The Department for Transport will be allocating a small budget to these in 2004-05, enabling more of the haulage industry to benefit from using the most up to date and efficient practices.

Lorry road-user charging

7.45 Road haulage plays an important role in a productive economy. The Government believes that all hauliers using UK roads should make a fair contribution towards the costs they impose, and significant steps have been made on the development of a distance-based lorry road-user charge. The Government recognises that some hauliers are already making a contribution to these costs, through VED and the purchase of fuel in the UK. To ensure that all hauliers pay towards the costs they impose on UK roads, the Government announced in the second progress report, published in May 2003, that it would be implementing a distance-based lorry road-user charge and that offsetting tax cuts would be made through a reduction in fuel duty.[8]

7.46 The Government has been working to refine the requirements of the charge. It is doing so in detailed discussions with the haulage sector and other industry representatives, and drawing on the experience of lorry road-user charging schemes in Switzerland, Austria and Germany. The Government has also taken account of and influenced developments in European legislation. **A third progress report is published today alongside the Budget.**[9] The report marks the move of the scheme into the procurement phase, and reaches the following conclusions on the technical workings of the scheme:

- that the fuel duty repayments should be via a repayment scheme that is linked to either fuel cards or a separate smart card to give protection against fraud;
- that beyond a certain mileage threshold it would be mandatory to install an electronic on-board unit;
- that the preferred approach to an occasional user scheme, for vehicles that do relatively few miles in the UK, is one that uses a low-specification electronic box rather than the paper-based ticketing system adopted in Germany; and
- that procurement is likely to be through three separate contracts, comprising central services and systems, on-board equipment and evidence, and capture and validation.

7.47 In determining the way forward on procurement and implementation, the experiences and lessons from other countries, including the recent problems in Germany, have been taken on board. The Government agrees with other stakeholders that the key determinant for planning should be successful implementation, rather than the fastest possible introduction. The

[8] *Modernising the Taxation of the Haulage Industry – lorry road-user charge: progress report two*, HM Treasury, May 2003.
[9] *Modernising the Taxation of the Haulage Industry – lorry road-user charge: progress report three*, HM Treasury, March 2004.

Government has therefore concluded that the project timetable must include a comprehensive testing phase with thorough monitoring of how the systems are operating and whether objectives are being met. These pilots will take place throughout 2006 and will mean that the roll out of technology occurs in 2007, with the charge coming into force in early 2008, and a phased introduction over two to three years, starting with the largest lorries. The Government will launch the procurement process with a Prior Indicative Notice in the next two months, formal advertising in the EU journal and a supplier open day in spring 2004. In taking forward procurement, the scheme will need to pass the final business case and Office for Government Commerce gateway reviews, and demonstrate that it is delivering value for money with robust delivery plans.

National road-user charging

7.48 The Department for Transport is currently leading a feasibility study into the practical options for the design and implementation of a new system to tackle congestion through road-user charging. The experience of the London Congestion Charge shows that a successful charging scheme can be implemented with a reduction in traffic level and congestion, and increased use of alternatives modes of transport. The Government's approach is underpinned by the key principles that any new charging system should:

- deliver a more efficient approach to the structure of transport pricing;
- be fair, respect privacy and promote social inclusion and accessibility;
- deliver higher economic growth and productivity for all regions of the UK; and
- deliver environmental benefits.

7.49 The study will consider whether a wider application of road charging to vehicles is practical and satisfies these four principles.

Bus subsidies

7.50 A review of bus subsidies was announced in Budget 2002 to consider how best to use the annual support for local bus services in England of over £1 billion, to achieve the Government's objectives of growth in bus use, a modal shift from cars to buses, and improved bus service quality, accessibility and reliability. The Government believes that buses have a crucial role to play in delivering its transport and environmental objectives. Improved bus services will also help to boost productivity by helping to tackle congestion, increase labour market flexibility and widen employment opportunities. The Government is undertaking this work as part of its wider review of transport, with the aim of ensuring that public funding delivers the best possible local bus services that meet the needs of local people and communities, and targets the Government's transport objectives as effectively as possible.

Aviation

Air Transport White Paper

7.51 UK air travel has increased fivefold over the last 30 years and is expected to continue growing over the next few years. The economic and social benefits of air travel come alongside significant costs to the environment. Reflecting this, the Government's Air Transport White Paper announced a number of new measures aimed at reducing the impact of aviation on the environment:

- increased use of scale charges for noise and local air quality;
- expanded noise compensation and mitigation schemes; and
- initiation of negotiations to include aviation in the European emissions trading scheme.[10]

[10] *The Future of Air Transport*, Department for Transport, December 2003.

7.52 Inclusion of aviation in the second phase of the EU ETS is one of the key priorities for the UK's European Presidency in 2005. Ahead of this, discussions have already been held with the European Commission and Member States. The UK will intensify these discussions over the coming months.

7.53 The Government will also continue to explore the role of further economic instruments. Discussions with stakeholders following publication in March 2003 of the Government's paper, *Aviation and the Environment: using economic instruments*, identified international legislation, particularly in the EU, as a key constraint in the design of effective economic instruments designed to improve the environmental performance of the aviation sector.[11] The Government will therefore discuss with the European Commission options for introducing greater flexibility in European legislation regarding the application of economic instruments to aviation.

Air passenger duty

7.54 Although there are positive signs of growth, the UK aviation sector is still recovering from the demand shocks of the events of 11 September 2001 and absorbing the cost of increased security measures. **Budget 2004 therefore freezes the rates for air passenger duty for this year.**

IMPROVING WASTE MANAGEMENT

7.55 Efficient use of resources and the effective management of waste are essential features of an environmentally sustainable economy. The most effective way of dealing with waste is by ensuring that less is created. The 2002 World Summit on Sustainable Development committed the international community to promote a 10-year framework in support of sustainable patterns of consumption and production. In September 2003, the Government announced its desire to break the link between economic growth and environmental pollution, by improving resource efficiency and examining the environmental life-cycle of a product.

7.56 The Government will shortly be publishing the independent review of the evidence on the health and environmental effects of waste management options, commissioned after the 2002 Pre-Budget Report. This review will to help inform policy development and the wider debate on waste management. In the meantime, the Government is encouraging a shift away from landfill through policies such as increases in the standard rate of landfill tax and the landfill allowance trading scheme, due to be introduced in 2006.

Landfill tax

7.57 The landfill tax encourages efforts to minimise the amount of waste generated and to develop more sustainable waste management techniques. It contributes to the achievement of the Government's waste strategy targets through the diversion of waste away from landfill. Total waste received at landfill sites registered for landfill tax fell by 16 per cent in the period from 1997-98 to 2002-03. In line with the five-year escalator announced in 1999, **the standard rate will increase by £1 per tonne to £15 per tonne on 1 April 2004.** As announced in Budget 2003, this rate will then be increased by £3 per tonne in 2005-06, and by at least £3 per tonne in the following years to reach a medium- to long-term rate of £35 per tonne. **The lower rate of landfill tax will remain at £2 per tonne.**

Recycling landfill tax to business

7.58 Budget 2003 announced that increases in the standard rate of landfill tax would be introduced in a way that is revenue neutral to business as a whole and to local government. Since the 2003 Pre-Budget Report, the Government has published research on the recycling options and has consulted stakeholders on these.[12] A number of options are now undergoing a more detailed examination, and consultations with stakeholders are continuing.

[11] *Aviation and the Environment: using economic instruments*, Department for Transport, March 2003.

[12] *An Assessment of Options for Recycling Landfill Tax Revenue*, HM Treasury, February 2004, available at www.hm-treasury.gov.uk.

Landfill tax credit scheme

7.59 The landfill tax credit scheme will be revalorised. **For 2004-05, this represents an increase to £48.3 million.** Since the reforms announced last year, further work on streamlining the scheme has been continuing, and will be completed shortly. These changes have allowed better monitoring and evaluation of the scheme, and improved its overall performance.

Improving local waste management

7.60 In August 2003, the Government announced that a new local authority Waste Management Performance Fund would be introduced in England in 2005-06. In its first year, the Performance Fund will run in parallel with the Waste Minimisation and Recycling Challenge Fund, and will have £45 million available to reward good management performance, rising to £90 million in 2006-07. This will provide incentives for local authorities to improve their waste management performance through high rates of recycling and composting of household waste. The Government launched its consultation on the detailed design of the Waste Management Performance Fund in January 2004. The consultation will end on 31 March 2004.

PROTECTING THE UK'S COUNTRYSIDE AND NATURAL RESOURCES

7.61 Sustainable development requires that economic growth is not pursued at the expense of the environment, but works to protect and preserve it, while supporting economically and socially stable communities. The Government is committed to ensuring that the UK's natural resources are used efficiently and responsibly.

Aggregate extraction

Aggregates levy

7.62 The extraction of aggregates imposes a range of environmental costs. Introduced in April 2002, the aggregates levy seeks to incorporate these costs into the price of virgin aggregate and encourages the use of alternative materials, such as wastes from construction and demolition that would otherwise be disposed of in landfill. It also promotes greater efficiency in the use of virgin aggregate. In the light of independent research, the levy was initially set at a rate of £1.60 per tonne on virgin aggregate commercially exploited in the UK. **Budget 2004 again freezes this rate.** Revenue from the aggregates levy is recycled to businesses through a cut in employer NICs, and through the aggregates levy sustainability fund, which supports projects seeking to minimise the impact of quarrying on local communities. As announced in the 2003 Pre-Budget Report, the sustainability fund will continue with its present level of funding for a further three years.

7.63 Early indications are that the levy is achieving its objectives. The production of virgin aggregate has decreased by 5.7 per cent between 2001 and 2002, with construction companies using more construction and demolition waste rather than sending it to waste disposal sites, and some substitution of primary aggregate with recycled or secondary aggregate products taking place. The Government continues to monitor the impact of the levy to ensure that it is achieving its objectives, and will continue to discuss with the aggregate and construction industries their concerns about the impact of the levy.

Northern Ireland relief scheme

7.64 It is now clear that in Northern Ireland the levy as currently structured is not achieving its environmental objectives. In order to enhance the environmental impact of the levy there, the Government is currently seeking EU state aid approval to extend the scope and length of the current relief that applies on aggregate used in processed products in the Province, so that it would cover virgin aggregates as well. It would be fixed at the current level of 80 per cent of the full rate until 31 March 2012. In order to benefit from the extended relief, aggregate businesses in Northern Ireland will have to agree to implement environmental improvements to their operations. These improvements will be regularly monitored and reviewed. **Following discussions with stakeholders, the Government is today publishing details of how the new relief scheme will operate, subject to EU state aid approval.**

Agriculture

7.65 Over 75 per cent of land in the UK is used for agricultural purposes, so farming practices have a significant impact on the UK's environmental performance. Good agricultural practice can help preserve and improve the natural environment. However, agriculture is also the potential source of a range of environmental problems, including water pollution from the use of fertilisers and pesticides and the impact of methane and carbon dioxide emissions on climate change.

7.66 The Government believes that the June 2003 reforms of the Common Agricultural Policy (CAP) could go some way to mitigating some of the negative environmental impacts associated with agriculture. Furthermore, the Government will be seeking EU approval for the entry level agri-environment scheme to be rolled out across England in 2005, following a positive assessment of the four pilots.

7.67 However, the Government believes that it may be necessary to do more to tackle the environmental impacts of agriculture. Recent improvements in the biological and chemical quality of the UK's rivers are showing signs of levelling off, and further action is needed to address the quality of the UK's rivers, lakes and groundwater. In particular, more action is required to address diffuse pollution from agriculture and other sources.

Diffuse water pollution

7.68 The Government has been considering the scope for using economic instruments to address the most pressing environmental issues associated with agriculture. In April 2003, the Department for Environment, Food and Rural Affairs (DEFRA) published a discussion paper on tackling diffuse water pollution.[13] As announced in the 2003 Pre-Budget Report, the Government will shortly consult on the use of policy instruments to reduce levels of diffuse water pollution, including consideration of the possible use of economic instruments in achieving this aim.

Pesticides

7.69 An industry voluntary initiative on measures to reduce the environmental damage caused by the agricultural use of pesticides has been in place since April 2001. This voluntary initiative has been developed through active participation by all the stakeholders, and is showing good progress against objectives, surpassing many of the initial key targets. To cover the potential case that the voluntary initiative might fail to deliver the required environmental benefits within a reasonable timescale, the Government has continued to keep the options for a tax or economic instrument under review and will publish further technical research on options.

7.70 The Government continues to believe that, if fully implemented, the voluntary initiative is the most effective way of reducing the environmental pollution associated with pesticides. The Government is keen to build on the good progress to date and ensure that the targets specified by the voluntary initiative are challenging and rigorous. The more that specific targets can be directly related to their environmental and biodiversity impact, the more the success of the initiative can be demonstrated. Work has also been taken forward in consultation with stakeholders on developing a national plan for pesticides, of which the voluntary initiative will be a central element.

Water

7.71 In 2003, the Government introduced 100 per cent first-year enhanced capital allowances (ECAs) for business investments in qualifying water efficiency technologies. The scheme currently supports five technologies. **The Government is committed to the continued development of the scheme, and will introduce further ECAs for rainwater harvesting equipment in 2004.**

[13] *Strategic Review of Diffuse Water Pollution from Agriculture: Discussion Document*, Department for Environment, Food and Rural Affairs, April 2003.

Sustainable land use

Sustainable housing

7.72 The Government's approach to creating and maintaining sustainable communities is discussed in Chapter 3. The Government's strategy places key housing, planning and regeneration policies in the context of wider requirements for sustainable communities including employment, quality public services, transport, a safe and healthy local environment, and sound local government.

7.73 The final report of the Barker Review of the factors affecting housing supply is published today and is discussed in Chapter 3. The Review recognises the need for housing policy to balance the environmental and social implications of housing development against the risks to macroeconomic stability and long-term affordability of not delivering a substantial increase in housing supply. The Review recommends a Planning-gain Supplement to fund a package of measures to boost housing supply, and also create a stronger incentive to re-use brownfield land relative to greenfield development. The Government accepts the need for reform to improve housing supply and intends to implement a programme of change as recommended in the Review.

Contaminated land tax credit

7.74 As part of a package of measures to promote urban regeneration, Budget 2001 introduced the contaminated land tax credit to provide business with incentives to clean up land rendered unusable. Early indications suggest that it is achieving its environmental goals. As announced in the 2003 Pre-Budget Report, the Government is looking to extend this credit to land that is long-term derelict, as recommended by the Barker Review. The Government continues to examine the effectiveness of this proposal, and will take into consideration the planned evaluation of the contaminated land tax credit.

ENVIRONMENTAL APPRAISAL OF POLICY MEASURES

7.75 The Government is committed to appraising the environmental impact of Budget measures, and aims to ensure that policy design, appraisal and evaluation take account of costs and benefits, the precautionary principle and the need to internalise costs by making the polluter pay. The Government constantly monitors the environmental impact of its policies to ensure they achieve their desired effect. In addition, this year formal evaluations will be carried out on the energy-saving ECA scheme, the contaminated land tax credit, and company car tax.

7.76 Table 7.1 shows how Budget measures sit alongside other policies as part of the Government's approach to the environmental elements of sustainable development. Table 7.2 sets out the environmental impact of measures introduced in recent Budgets that have a significant effect on the environment or which serve an environmental purpose. To increase transparency and public reporting of key performance indicators, the environmental appraisal tables are also available on the Treasury website. The tables will be updated regularly to reflect ongoing monitoring of environmental indicators and further evaluation of specific schemes.

Table 7.1: The Government's policy objectives and Budget measures

Policy objective	Sustainable development indicator and recent trend data[1]	Recent Government measures
Tackling climate change and improving air quality.	*Emissions of greenhouse gases* UK greenhouse gas emissions were provisionally 14.9 per cent below 1990 levels in 2002.[2] *Days when air pollution is moderate or higher* Provisional results show that the number of days with moderate or higher air pollution increased from 20 to 50 in urban areas and from 30 to 63 in rural areas between 2002 and 2003.[3] *Road traffic* Between 1998 and 2003, total motorised traffic volume rose by 7.2 per cent, however, road traffic intensity (vehicle kilometres per GDP) fell by 4.3 per cent between 1998 and 2003.[4]	*Government measures* • Climate change programme, DETR, November 2000. • UK emissions trading scheme, DEFRA, August 2001. • Energy efficiency commitment, DEFRA, April 2002. • Renewables Obligation, DEFRA, April 2002. • Air Quality Strategy, DETR, January 2000, and Addendum, DEFRA, February 2003, and review, DEFRA, 2003-04. • Implementation of Integrated Pollution, Prevention Control regime, DEFRA, 2002. • Continued support for local air quality management system. • Negotiation and implementation of EU air quality directives and international agreements, 2003-04. • Ten Year Plan for Transport, DETR, July 2000, and review, DfT, 2003-04. • Powering Future Vehicles, DfT et al, July 2002. • Air Transport White Paper DfT, December 2003. *Specific Budget measures* • Climate change levy (CCL) package. • Green Technology Challenge. • Road fuel duty and differentials. • Company car tax and fuel scale charge reform, and authorised mileage allowance payments. • Landlord's energy saving allowance.
Improving waste management.	*Household waste, all waste arisings and management* Household waste increased from 22.5 million tonnes in 1996-97 to 25.6 million tonnes in 2001-02. However, over the same period the proportion of household waste being recycled increased from 7.5 per cent to 12.4 per cent. The recycling rate for 2002-03 was 14.9 per cent.[5]	*Government measures* • Waste Strategy 2000, DETR, May 2000. • Waste Implementation Programme, DEFRA, 2002. • Waste Management Performance Fund. *Specific Budget measures* • Landfill tax and landfill tax credit scheme.
Regenerating Britain's towns and cities.	*New homes built on previously developed land* In 2002, 64 per cent of new housing was on previously developed land, increasing from around 54 per cent in the early 1990s.[6]	*Other Government measures* • Urban White Paper, DETR, November 2000. • Package of measures to tackle abandoned vehicles. *Specific Budget measures* • Capital allowances for flats over shops. • Contaminated land tax credit. • Stamp duty exemption for disadvantaged areas. • VAT relief for residential conversions.
Protecting the UK's countryside and natural resources.	*Populations of wild birds* The decline in farmland birds, the number of which has almost halved since 1977, levelled off in 1997. Since 1998, the number of farmland birds has increased by 5 per cent. In 2000, woodland birds increased to their highest level since 1990, but have since fallen, and are 3 per cent lower than in 1998. *Chemical river quality and biological river quality* In 2002, about 95 per cent of rivers in the UK were rated as having good or fair chemical quality and approximately 95 per cent of UK rivers were of good or fair biological quality.[7]	*Government measures* • Regulations transposing the Water Framework Directive came into force 2 January 2004. • Rural White Paper, DETR, November 2000. • Strategy for Sustainable Farming and Food, DEFRA, December 2002. *Specific Budget measures* • Aggregates levy and aggregates levy sustainability fund. • Pesticides voluntary initiative.

[1] *Achieving a Better Quality of Life, DEFRA, January 2002 – latest data from www.sustainable-development.gov.uk.*
[2] *The six main greenhouse gases are: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perflourocarbons and sulphur hexaflouride.*
[3] *Air quality headline indicator for sustainable development: 2003, DEFRA (provisional figures).*
[4] *Provisional data from DfT.*
[5] *Municipal Waste Management Survey, 2001-02, DEFRA, and DEFRA news release 18 December 2003. As the headline waste sustainable development indicator has not yet been updated this currently relates to the core indicator on household waste.*
[6] *The figure for 2002 is provisional.*
[7] *New measures of water quality will be needed under the EU Water Framework Directive; the Environment Agency is currently characterising water bodies to help establish these.*

Table 7.2: The environmental impacts of Budget measures

Budget measure	Environmental impact[1]
Climate change levy package.	Savings of at least 5 MtC per year by 2010.[2]
Landlord's energy saving allowance.	Reductions of carbon dioxide emissions.
Road fuel duty.[3]	Increases of 0.5 pence above inflation lead to a small reduction in carbon dioxide emissions and local air pollutants in the UK. Furthermore, the duty differential for sulphur-free fuels will lead to a significant reduction in local air pollutants and a medium term reduction in carbon dioxide emissions. The shift to ultra-low sulphur petrol from ordinary unleaded is estimated to have reduced nitrogen oxide emissions by 4 per cent and emissions of volatile organic compounds by 1 per cent per year between 2001 and 2004. The shift to ultra-low sulphur diesel from ordinary diesel is estimated to have reduced emissions of particulates by 8 per cent and nitrogen oxides by up to 1 per cent per year between 2001 and 2004. The increased use of biodiesel and bioethanol will help reduce carbon dioxide emissions. The road fuel gas differential results in a reduction in emissions of particulates and nitrogen oxides.
Company car tax reform.	Estimated carbon dioxide emissions savings of 0.15 to 0.2 MtC in 2003. In the long run it is forecast that carbon dioxide savings will be between 0.5 and 1 MtC per year.[4]
Employer-provided van benefit.	Simplification of legislation for shared vans will remove the incentive to drive older, more polluting, vans with resulting air quality benefits.
Fuel scale charges.	The programme of increases over five years in the fuel scale charge between 1997-98 and 2002-03 is estimated to have reduced the number of drivers in receipt of free fuel by around 300,000.[4] It is expected that the programme has reduced carbon dioxide and local air pollutant emissions due to fewer private miles travelled where fuel has been paid for by drivers and not their employers. Restructure of the fuel scale charge in 2003 to relate it to carbon dioxide emissions and to include the same discounts and premiums as in the company car tax system will further reduce emissions of carbon.
Air passenger duty (APD) rates.	The freeze in rates will lead to a small increase in emissions of carbon dioxide and local air pollutants.
Landfill tax.	Encourages waste producers and the waste management industry to switch away from landfill disposal towards waste minimisation, re-use and other waste management options.
Landfill tax credit scheme.	A scheme supporting local community and environmental projects in the vicinity of landfill sites.
Aggregates levy and aggregates levy sustainability fund.	Reductions in noise and vibration, dust and other emissions to air, visual intrusion, loss of amenity and damage to wildlife habitats.
Capital allowance for flats over shops.	Bringing empty space over shops back into the residential market, helping to create greater urban diversity while reducing the pressure for new greenfield development.
Contaminated land tax credit.	Bringing forward remediation of contaminated land.
Stamp duty exemption for disadvantaged areas.	Regeneration and improved functioning of property markets in the UK's most disadvantaged areas.
VAT relief for residential conversions.	Reduced pressure on greenfield site development due to the better use of existing buildings.

[1] These estimates are subject to a wide margin of error.
[2] Based on the DTI energy model. There are a number of difficulties involved in estimating the emissions savings from the individual components of the climate change levy, including the need to avoid double counting. Of the 5 MtC (million tonnes of carbon) per year by 2010, the levy and exemptions account for 2.0 MtC, the negotiated agreements account for 2.5 MtC and energy efficiency measures account for 0.5 MtC. A related measure, the emissions trading scheme, involves 31 direct participants who have undertaken binding commitments to deliver emissions reductions of 1.1 MtC by 2006.
[3] Using NETCEN emissions models – further detail on the methodology used is provided in NETCEN's January 2000 report, UK Road Transport Emissions Projections.
[4] Based on Inland Revenue modelling.