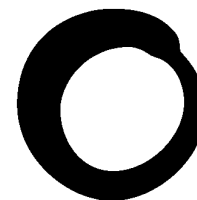


October 2005



**Friends of  
the Earth**

# Briefing

## Tackling Climate Change through the Budget

- ££ hundreds of billions of reasons why  
Government must act now

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## Introduction

At the last pre-budget, the Chancellor identified environmental problems - and specifically climate change - as one of six critical long-term challenges and opportunities for the UK. Critically he highlighted the economic imperative of tackling these problems: *“The challenge for the UK is to increase the energy and resource efficiency of the economy, particularly by stimulating technological innovation in firms and by promoting low carbon energy sources.”*

For the UK to have a clean, clever and competitive economy in the future the Chancellor needs to act at this budget.

This pre-budget briefing sets out:

- Why climate change is such a large and urgent challenge;
- Why this Budget has such a crucial role to play;
- Why action at this Budget is good for the economy as well as for people and the environment;
- Measures which the Chancellor could introduce to deliver a low-carbon, innovative, competitive economy.

## Climate Change is happening now

The overwhelming scientific consensus is that climate change is happening now. Weather is becoming more extreme and unpredictable. Attention has recently been focussed on hurricanes in the Gulf of Mexico, which many scientists say may have been made more intense by ocean temperature rises caused by climate change. But there are other impacts, many closer to home, that will also increase in regularity and intensity – heatwaves, droughts, floods and storms. In addition, the longer we wait before taking action, the more likely it is that irreversible effects will happen. Positive feedback loops are increasingly likely – for example, with Arctic ice sheets melting, less heat will be reflected back into space, causing more warming. And tundra permafrost melting will release billions of tonnes of the potent greenhouse gas methane into the atmosphere.

As well as massive environmental and social costs, climate change will have huge economic costs:

- The economic damage from Hurricanes Rita and Katrina is estimated at \$150 billion<sup>1</sup>
- The hottest summer on record in 2003 saw crop failure in southern, central and eastern Europe causing \$12.3 billion economic damage. Forest fires in Portugal alone resulted in total damage of \$1.6 billion<sup>2</sup>.
- Major floods across Europe in July and August 2002 caused total damage of \$15.6 billion<sup>3</sup>.
- The risk rate for weather catastrophes is rising at 2-4% a year.

There are huge potential costs for the UK too, whether in pension funds hit by damage to companies, increased damage to cities like Carlisle and York from flooding, or houses becoming uninsurable due to increased flood risk. The Government's Energy Savings Trust estimates that without action, by 2050 around £200 billion of assets, including over two million homes, would be at risk from flooding and coastal erosion<sup>4</sup>. Unpredictable weather patterns will also hit other economic sectors – notably farming and tourism. So, there are ever-increasing economic - as well social and environmental - reasons to reduce our emissions of carbon dioxide, by burning far less oil, coal and gas.

Action is needed at an international level and has started with the Kyoto Protocol. But the UK also needs to deliver at home – not just to meet its Protocol commitments, but also to show leadership. The UK is the second biggest emitter and a leading country in the EU. As a highly industrialised country with a stable economy, we must demonstrate how economic growth can be permanently decoupled from carbon emissions. The major polluting nations like the UK need to deliver year-on-year reductions, starting now.

But, despite the mounting evidence that climate change is happening now, and pronouncements from almost all world leaders that action must be taken now, results are poor almost everywhere. In the UK, emissions have actually risen since 1997, and the Government's Climate Change strategy has not been delivering. A new approach is needed.

## The role of the Budget

The Budget should have a much more important role if the UK is to get back on course. There are three reasons for this

First, energy is a critical component of our economy. The types of fuel we use, how much we have to import, how efficient we are with our use of these fuels, are all crucial to meeting the long-term challenges to the economy the Chancellor has set out, not just the climate change challenge. The potential economic damage if emissions are not controlled means that Treasury must act to protect the stability of the UK economy.

Second, innovation and investment are critical components required for the transition to a low-carbon economy. But, today's highly capitalised mature competitive markets are slow to leave the status quo. Businesses need to have the confidence that their investments in innovation and new technology will pay off – however, they remain uncertain over what trajectory the UK will take, or how deeply the Government is committed. As a result, Treasury needs to provide certainty, clarity and control, and ensure that the low-carbon transition is a central part of its innovation and investment strategy.

Third, progress has been stymied by perceptions that action on climate change is separate from economic policy. The Chancellor has recently stressed the importance of integrating climate change, stating: "*Environmental issues - including climate change - have traditionally been placed in a category separate from the economy and from economic policy. But this is no longer tenable*". Economic and environmental progress can go together – so long as they do not continue to be separate policy aims.

However, although there are a wide range of fiscal measures used in the budget on climate change, they are not adequately coordinated. The current policy approach is to a greater or

lesser extent a mixed bag of opportunistic and usually modest measures, insufficient to meet the targets the Government has set, and often outweighed by other measures pulling in the opposite direction. Micro-management will not work without a macro-policy, and there is no such macro-policy at present. A whole-economy top-down approach is needed, which delivers adequate and coordinated incentives to introduce new technologies and practices and drive down emissions.

This briefing argues therefore that the Chancellor and the Treasury need to take control of climate change policy. They can do this by setting a carbon budget for the whole economy, introducing national carbon accounts to report on progress and use economic instruments to ensure that each sector of the economy stays within this budget.

This budget is therefore crucial. But action is not some painful, regrettable necessity. It will be good for the economy:

## Economic benefits of action:

Action on climate change would have major economic benefits, as well as social and environmental ones. Reducing our dependence on fossil fuels will:

- Reduce the UK's vulnerability to the global volatility of oil markets and supplies
- Reduce the UK's balance of payments deficit
- Reduce dependence on energy supplies from unstable parts of the world
- Boost UK resource productivity
- Stimulate UK innovation in new high-growth sustainable technologies
- Reduce the massive economic and social costs of climate change, which will hit the UK as well as developing countries, and hit the poorest hardest
- Reduce the damage climate change will do exacerbating global poverty, particularly in Africa.

In contrast, tackling high oil prices by increasing production or by cutting taxes makes all of the above problems worse. Cutting taxes has the added disadvantage of making the effects of oil price spikes even more extreme. Taking action now also prevents the necessity for making inevitably rushed and painful economic changes in the future.

We are calling on the Chancellor to:

- **Set 5 year rolling carbon-budgets for the economy.** The Chancellor should convert the 2010 reduction target to a 5 year budget for 2008-2012, introduce national carbon accounts to report on progress, set out which sectors will make which savings, and manage economic instruments to keep within these budgets. This will give investors in new technology greater certainty, and companies further incentives to innovate.
- **Introduce new fiscal measures to deliver carbon savings in each of the main sectors of the economy.**

The Government needs to show leadership and make it easier for businesses and households to cut emissions. Perversely, current fiscal and economic frameworks make it difficult for businesses and households to take action. Emissions are still rising, and are higher than when Labour came to power. In the Chancellor's first few budgets, he set out a progressive series of measures on the environment, but since 2001 progress has almost completely stalled. To show leadership on climate change, new measures are urgently needed.

Friends of the Earth calls on the Chancellor to put climate change at the heart of his budget, and introduce the following measures:

### Road Transport

- **Introduce a new zero-rated tax disc for the most-energy efficient cars, and a higher rate for gas-guzzling cars.** This measure will improve the fuel efficiency of UK vehicles and reward motorists taking action on climate change.
- **Increase road fuel duty in line with inflation, but explicitly use the revenue raised to improve the quality of public transport alternatives.** This will help encourage a shift to less polluting modes of travel.

### Buildings

- **Reform incentives to promote micro-generation.** This will help ensure that buildings start to produce renewable electricity and heat.
- **Introduce a Renewable Heat Obligation for energy suppliers.** This will help to reduce emissions from heating homes and buildings.

### Aviation

- **Increase Air Passenger Duty, and remove the exemptions from VAT on domestic flights and on duty-free.** This will start to reduce the billions of pounds of tax exemptions the aviation industry receives each year, which has fuelled aviation's emissions growth.

### Industry

- **Increase the Climate Change Levy.** This will drive further improvements from industry.

## Part 2: Policies in detail

### 1 Vehicle Excise Duty

#### **Why the chancellor should take action**

One of the biggest effects individuals have over their carbon emissions is what sort of car they buy. Over 5 years, a Vauxhall Frontera 5 door estate will emit seven and a half tonnes more carbon dioxide than a Vauxhall Astra 5 door estate.

Yet although engine efficiency has been improving over the years, current trends are for people to buy bigger, less efficient vehicles. In 2004, only 2% of new car sales were in the greenest categories A and B, and 26% were in the most polluting category F. Sales of 4x4s and MPVs were higher in 2004 than in 2003, but sales of minis and superminis are down. 2005 figures to date show sales of 4x4s up in a declining market. Recent research from the Energy Savings Trust shows that progress on CO<sub>2</sub> emissions from privately purchased cars has now stalled and gone into reverse. In total, the car industry is not making enough progress – it has an EU voluntary agreement to get to new car average emissions of 140 g/km by 2008 – we are two thirds of the way through the target period, only one third of the necessary progress has been made, and the rate of progress is slowing down.

The point of purchase has a major effect on future emissions, but there is currently little incentive for people to buy a more fuel efficient car. The Government does give a small incentive to people who buy more efficient vehicles: it has introduced a lower rate of Vehicle Excise Duty (VED) on such cars. However, this differential is too small to make a difference to people's choices, and there is also no difference between VED levels for the majority of cars - average cars and gas guzzlers. Indeed, other signals are acting in the opposite direction. For example, recent analysis of UK car advertising shows that manufacturers overwhelmingly advertise their least efficient models. In early September 88% of adverts were for cars that exceeded the UK motor industry's voluntary emissions target of 140g/Km of carbon dioxide by 2008. Over half (57.6 %) of all adverts were for cars in the two most polluting categories (VED bands E and F)<sup>5</sup>.

#### **What the Chancellor could do**

The Chancellor should introduce higher tax bands for gas guzzling cars, reflecting their inefficient use of fuel, and give an incentive for purchasers to buy greener cars.

The Department for Transport has published research showing that this would work - wider VED differentials would persuade people to buy a greener car. They say that: "*the current graduated scheme does not offer a large enough incentive to encourage behavioural change*", and state that wider bands would have an effect: "*A differential between bands of £50, would be enough for 33% [of people about to buy a car] to choose a different car*". At a differential of £150, 55% of people would choose a greener car.

To provide better incentives for motorists to purchase greener cars, we advocate that the Government widens the difference between bands, introduce a top rate of £600 for Band F,

and a bottom rate of £0 for Band A. The Chancellor could signal that this top rate would be put in place gradually over 3 years, with proportionate increases in the intervening years. To provide a faster positive incentive the Government introduce the reductions for band A immediately.

An indicative scheme could look like:

Label	CO2 g/km	% of new car sales 2004	Current VED £	Levels in March 06	Levels in March 07	Levels in March 08
A	up to 100	0	65	0	0	0
B	100-120	2	75	75	100	100
C	121-150	31	105	150	175	200
D	151-165	24	125	200	250	300
E	166-185	17	150	250	325	400
F	185 +	26	165	300	450	600

### Effects

This reform would give a strong statement of intent that the Government is committed to ensuring the UK has a fuel-efficient car fleet – driving change among both manufacturers and the public. Overall, this VED reform would create a much stronger incentive for people to buy greener cars, and would complement the Government's car labelling scheme. The changes would result in carbon dioxide savings of around 4 million tonnes by 2010.

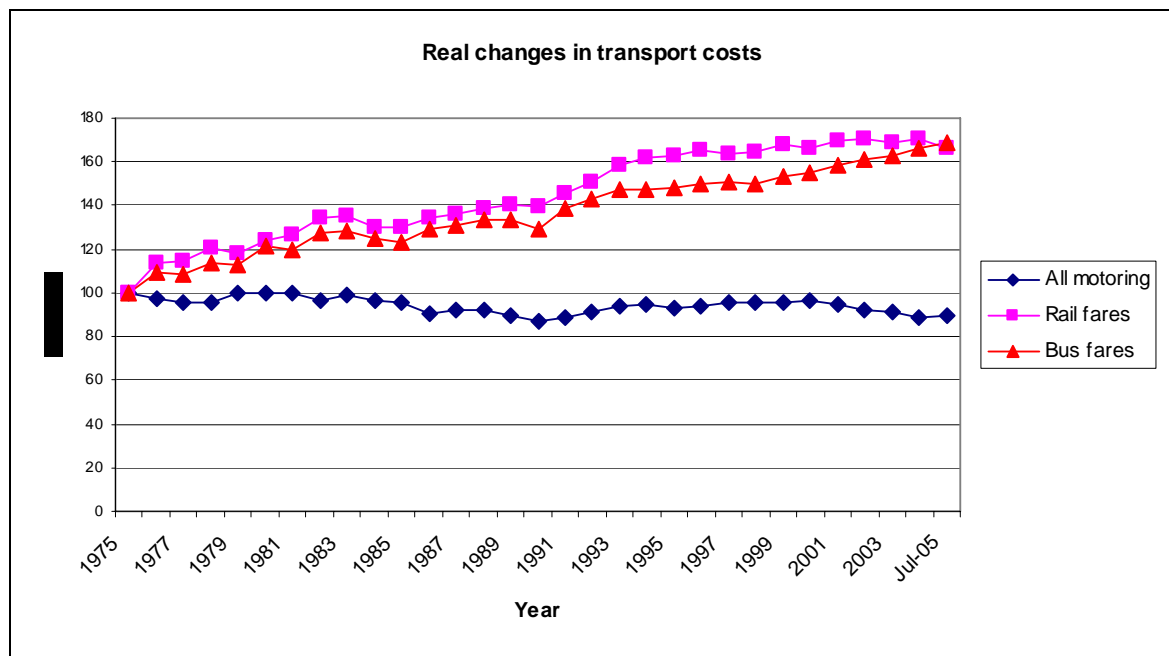
## 2 Road Fuel Duty

### Why the Chancellor should take action

Transport is responsible for around a quarter of the UK's carbon dioxide emissions. This percentage is increasing. The Future of Transport White Paper forecasts road transport's carbon emissions rising by 10% from 2000 levels by 2010, yet the UK has a target to cut overall carbon dioxide emissions by 20% by 2010, and 60% by 2050. Meeting these targets will be practically impossible unless the Government takes decisive action on emissions from transport.

The price of fuel has a major effect on transport's carbon emissions. The Government's Commission for Integrated Transport said in 2000 that the fuel protestors demand for a 26p a litre cut in fuel duty would lead to an 8% growth in UK car mileage. In contrast, the Government's analysis of the fuel duty increases between 1996 and 1999 is that they produced annual carbon savings of between 1 and 2.5 MtC by 2010.

Price is therefore deeply linked with emissions, however despite the recent rises in the price of oil, according to Government figures in real terms motoring is still cheaper than 30 years ago (see graph below). There are two reasons for this. First, fuel duty in March 2005 was at the lowest level in real terms since Labour came to power, so the recent oil price rises were against a background of low prices<sup>6</sup>. Second, the other elements of car and lorry operating costs continue to fall. In contrast, the price of alternatives to motoring – buses and trains – has risen dramatically, and continues to do so. Action is urgently needed to improve affordability and quality of the alternatives to motoring.



Source: Government data<sup>7</sup>

Increasing fuel duty is the main tool the Chancellor has to reduce the growth in transport emissions. Moreover, it would raise revenue which is urgently needed to invest in decent alternatives – to provide affordable safe clean public transport, and to improve walking and cycling conditions, to make them an attractive alternative for short journeys, for example by providing Safe Routes to all schools.

### **What could the Chancellor do?**

The Chancellor should announce an in-line-with inflation rise in fuel duty, and use this revenue (£700 million) investing in decent alternatives. At the very least he must not cut fuel duty in response to high oil prices – this will simply fuel demand for more oil, damage attempts to invest in energy efficiency, and worsen climate change.

### **Effects**

The main reason for this measure is the urgent necessity for cutting carbon emissions. The Government's analysis in its Transport 10 year plan shows that stopping motoring costs falling, and keeping them constant, would see 3% cuts in emissions. There would be other benefits for the environment, such as improved air quality, and less pressure on the countryside.

It would also have broad benefits on the economy. There would be less congestion, and it would reduce the UK's dependence on imported oil, reducing the deleterious effect on the UK economy of unstable and volatile global oil prices.

It would also have social benefits. Broadly, increasing fuel duty is progressive taxation, because poorer people are less likely to have a car. 41% of the poorest fifth of households have a car, compared with 92% of the richest<sup>8</sup>. Spending increased fuel duty on improved public transport and better walking and cycling conditions is also progressive, as these modes are used more by poorer people. The poorest fifth of people make four times more bus journeys a year than the richest fifth, and the richest fifth of people make on average 500 more car journeys a year than the poorest fifth. This is an urgent social issue - millions of people do not have decent transport choices because of regressive transport prices and spending:

- **Current prices are regressive** – the Government states that “*Public transport fares rose by about 75 per cent in real terms between 1974 and 2002*”. This hits the poorest hardest.
- **Current transport spending is regressive** – the Government's figures show that 38% of transport spending benefits the richest fifth of people, while only 12% benefits the poorest fifth<sup>9</sup>.

### 3 Reform the incentives for micro-generation

#### **Why the Chancellor should take action**

The domestic sector is responsible for around a quarter of all carbon emissions, largely from heating homes and electricity for appliances. A major part of the solution would be for households – and also small businesses, public buildings and communities – to generate their own low-carbon or renewable heat and power. There are an exciting array of up-and-coming, proven technologies to do this:

- Solar photovoltaics: converting solar energy into electricity
- Solar thermal collectors: using solar energy to heat water
- Heat pumps
- Micro-wind turbines
- Micro-hydropower turbines
- Wood-fuel boilers
- Micro combined heat and power units

Widespread adoption of these technologies would be a quintuple win for the Government. The independent charity Green Alliance argues that it would:

- **Cut greenhouse gas emissions**
- **Generate major economic value.** There are strong opportunities for UK industry exporting these micro-generation technologies. These technologies also reduce the need for two major types of risky, large, long-term investments – in large new power stations, and in strengthening transmission and distribution networks to carry larger power loads.
- **Increase security of supply.** The UK is becoming a net importer of gas and oil. These technologies offer four advantages – greater diversity of supply, reduced likelihood of disruption of supply, reduction in the reliance on imported fuels at a time of increased volatility and prices, and the increased availability of power to meet peak demand.
- **Drive behavioural change.** Uptake of these technologies will give people a clearer understanding of the links between energy use and climate change, and provide visible solutions.
- **Help meet fuel poverty goals.** These micro-generation solutions are ideally suited to retrofitting to homes, and could be particularly useful for homes where some energy efficiency solutions are not possible (for example cavity wall insulation).

However, despite the massive potential and major benefits from these technologies, the regulatory and financial framework is currently stacked against them. The Government has committed to develop a strategy for developing these technologies by December 2005. A core element of this strategy needs to be to change the financial incentives to allow these technologies to flourish. This is in the hands of the Treasury.

## What the Chancellor could do

The Chancellor should announce in this pre-budget that he will ensure that the forthcoming DTi Microgeneration Strategy will reform the fiscal framework for these technologies. Such a review would include looking at measures such as:

- Packages allowing upfront cost of technology and installation to be paid back through bills over a longer period
- Tariffs for exporting electricity
- Stamp duty and council tax rebates for low-carbon homes
- Extension of successful schemes such as the Major Photovoltaic Demonstration Programme and Clear Skies, to continue to support fledgling industries, and create certainty for business planning
- VAT reduction applied consistently across all micro-generation (so that demand reduction is charged the same VAT as energy use)
- Enhanced Capital Allowances applied consistently to all micro-generation
- Exemption from distribution charges
- Threshold size for micro-generation for the expensive half-hourly metering requirement should be raised to over 50 kW (from 15kW now)
- ROCs and Green Heat Certificates. Simplify the process so that householders generating heat and electricity by microgeneration have access to 'renewable obligation certificates' and other green energy certificates.
- Long term support. The capital costs of both heat and combined heat and power remain a barrier to uptake by individual consumers. ACE say: "*A simple, accessible financial support scheme will incentivise deployment and has been used to great effect in other countries. The system needs to be ongoing (at least ten years duration) to provide the certainty industry needs to invest, and needs to provide support to individual technologies as they progress towards commercial competitiveness.*"

## Effects

Government action in this area would give one of the strongest visible signals that the UK Government is committed to tackling climate change. For example, flourishing micro-generation technologies are a more visible statement of progressive change than equally important energy efficiency measures. The opportunities for households are huge, but for other sectors also. The Department for Education and Skills has a programme to refurbish every secondary school in the next 15 years. Ninety-six new acute hospitals are also

planned – micro-generation can either become the norm, or stay in the margins. The framework must be put in place now. With the right framework, the UK could have:

- Millions of PV cells on roofs. The UK's total installed PV capacity is 5.9 MWp: Germany installed 150 MWp in 2003 alone.
- Millions of homes with solar thermal heating systems. There are currently 50,000 homes doing so.
- Millions of rural homes fitted with ground source heat pumps. These are common in the USA, and would be ideal for homes off the gas-network, as they can be cheaper than storage heaters. Tackling off-network homes is good for tackling fuel poverty.
- Micro CHP plants and fuel cells powering hospitals, schools, business parks, tower blocks, and in all new housing
- Tens of thousands of former mill sites powered by micro-hydropower turbines.

**Case studies:**

- A nursery school with 25 children near Honiton, Devon has installed a wood pellet fired heating system with a 100% grant from the Clear Skies programme. Now instead of the children having to wear coats in class because of the cold, they are warm and hang their paintings to dry on the side of the heaters. Fuel bills have fallen enormously now they are no longer using LPG and electric heaters.
- A developer has renovated a 1950s property in Crowborough in East Sussex. The 4-bedroom semi-detached house uses a ground source heat pump for under-floor heating and solar powered water heating in the roof, which saves 40% on energy bills.
- A kite business near Bridgend in Wales has installed two bio-mass fuel stoves which run on wood waste pellets. Each stove cost around £1,900 and they heat a 3,000 sq foot warehouse. They are energy efficient, costing about £6 per day to run in cold weather. The business received a 30% grant towards installation.

## 4 Energy for heat

### **Why the Chancellor should take action**

Energy for heat makes up approximately a third of the UK's demand for energy. However, renewable sources such as biomass, solar thermal and geothermal provide only a minute fraction of this heat, compared with the big players – gas, coal and oil. New technologies are at a disadvantage in mature markets, and support is required. The Government recognises the potential contribution of renewable heating systems to the UK's climate change programme, but a dedicated policy is needed to support this low cost and proven carbon abatement option.

Following consultation with industry, trade associations and NGOs, Friends of the Earth feel the best way to promote renewable heat is through an obligation. The concept has already been endorsed by the Royal Commission on Environmental Pollution's report on biomass energy and a research study produced for DEFRA. An obligation on energy suppliers has proved to be an effective way of stimulating change, without imposing a financial burden on taxpayers.

Like electricity suppliers, coal, gas and oil suppliers should have an Obligation to supply an increasing proportion of their business from renewable energy sources. For ease of terminology this proposed mechanism is referred to as a Renewable Heat Obligation (RHO), with a market in Heat Obligation Certificates (HOCs).

An obligation of this type provides a market-based incentive, to which companies can respond, without the expense, lag-time and inertia in trying to stimulate change in the population at large. The 'technology neutral' approach favours the least cost solutions.

The first major renewables policy measure, the Renewables Obligation (RO) is now showing signs of stimulating renewables within electricity, which accounts for about a third of our emissions. However, the other two thirds come from transport and heat sectors.

So, the current system skews the market as renewable electricity is incentivised and renewable heat and transport fuel is not. It seems likely that the government will act to incentivise renewable transport fuel in the near future. However, in order to promote the most sustainable technologies and to make the greatest carbon savings, Government should concurrently incentivise renewable heat.

As a significant proportion of renewable heat would be likely to come from biomass, it is essential that accreditation must ensure that only sustainable sourcing occurs - otherwise we will simply be swapping one environmental problem for another. Accreditation rules must be strong and set out in advance, to ensure that unsustainably sourced biomass production is not boosted by the introduction of a UK obligation.

### **Additional benefits**

The heat sector in particular would stimulate the biomass industry, with substantial positive effects in agriculture and the rural economy. In particular it should work with the RO to stimulate combined heat and power systems.

It should also prove particularly effective in providing additional stimulus for building-

integrated and micro-power solutions – both areas where existing policies have had limited impact to date. Micro generation provides a number of benefits but by incentivising renewable heat it will ensure the most environmentally sustainable forms of micro generation will come forward.

Generating our own energy obviously helps tackle the issue of energy security. There is also a huge potential for low cost carbon abatement to be achieved by stimulating and supporting the market for renewable heat. Abating carbon from renewable heat is far cheaper than abating from electricity. To abate carbon from electricity costs roughly £30/tonne whereas from heat it's about £10/tonne. In addition, generating carbon savings from this sector would create additional AAUs (Assigned Amount Unit), which would financially benefit the Treasury.

Finally, incentivising renewable heat should help tackle fuel poverty. The major energy demand for households experiencing fuel poverty is for affordable warmth. This is at present extremely difficult to achieve for those living in 'hard-to treat' properties. Renewable heat – like ground source heat pumps - is a new option for such properties, and The Renewable Heat Obligation would assist the Government deliver its Fuel Poverty Strategy by reducing the energy costs of low income households living in such properties, particularly in off-gas-network areas. It will also encourage the developers of urban community heating schemes to use renewable sources of heat such as biomass, solar thermal and geothermal.

## 5 Aviation

### Why the Chancellor should take action

The Government has recently pinned its hopes on including aviation into the EU Emissions Trading Scheme (EUETS) as its preferred method of tackling aviation's climate change emissions. Although it is possible that this might be effective, the Government must take other actions on aviation – using taxation – now. This is for four reasons:

- First, it will be years before aviation can be included within EUETS – measures are needed before that to bring aviation's ever-increasing emissions under control.
- Second, it is likely that aviation's inclusion within EUETS would not be environmentally effective. The aviation industry advocates EUETS as its favoured measure because it believes that EUETS of all the possible measures is the one least likely to mean they have to change. They are already advocating large allocations of emissions for their own sector, in contradiction with Government policy that the polluter should pay.
- Third if other measures are not brought in now, aviation runway capacity will increase and the aviation sector will argue for even larger future allocations to itself, meaning greater cuts will be required from other economic sectors – like industry.
- Fourth, it is not a question of either emissions trading or other measures. Both are needed. If aviation is inside EUETS its current billions-a-year fuel tax-exemptions will have to be addressed otherwise aviation will receive a major unfair competitive advantage compared with other industrial sectors.

Aviation is currently a rogue sector – outside of international climate agreements and with emissions spiralling out of control. Waiting years for emissions trading is not sufficient. The Department for Transport's own models show that if the cost of flying were to stay constant (rather than predicted falls), then the industry would expand, but much slower, and there growth could be accommodated within existing runway capacity. There would be no need for new runways. This would be a major first step to keeping aviation emissions within environmentally acceptable limits.

The tool to stop the cost of flying falling is increases in Air Passenger Duty (APD). Doing this would reduce the rate of growth in aviation's emissions. If however the aviation industry argues that the cost of flying is not falling, then according to the Government's own figures there will be no need for new runways, and the industry can drop its proposals for airport expansion across the country.

There are a number of advantages to this increase in APD approach:

- APD is already in place, so increases are administratively simple.
- APD increases reflect environmental damage and will slow demand growth (but not as the industry claims, reverse growth).

- APD can be reformed to better reflect environmental damage. Longer journeys and seats taking more space already attract higher rates of APD. But APD could also be extended to include transfer passengers, and freight aircraft, or other factors.
- APD increases would help meet the Government's aim that the polluter pays – as set out in the Aviation White Paper.

A statement from the Chancellor at the pre-budget on increased APD would signal the Government's commitment to bring aviation into the climate change regime, and the necessity of bringing down aviation's carbon emissions.

Opponents of APD increases often claim three things.

- First, they claim that it would be environmentally ineffective. But the opposite is the case, it is precisely because it is effective that it is being opposed.
- Second, they claim that a tax on aviation would harm the UK economy. Again, this is exaggeration – and in fact there would be economic benefits if aviation expanded more slowly. For example expansion of aviation in line with the Aviation White Paper's targets will lead to an increase in the UK net air travel spending deficit from £15 billion a year to £30 billion a year by 2030.
- Finally they claim that it would price poor people off the airlines. This is not the case either. APD increases would be broadly progressive taxation – poorer people fly far less often, and the average household income of people flying on holiday is £47,000, compared with a national average of £27,000. The barrier to poorer people flying is the costs of the holiday at the end (hotels etc), rather than the cost of the flight.

An increase of £10 in APD would raise around £900 million, more with the inclusion of transfer passengers and freight. In addition, we advocate that two tax exemptions are tackled:

**VAT could be charged on domestic flights**, as happens in the USA and in virtually all EU countries. Figures for the amount this would raise are difficult to obtain, but the current zero rate of VAT for all UK aviation has been estimated to cost the public purse £1.8 billion in 1999/2000.

**A further tax break for aviation is Duty Free** - still available for alcohol, tobacco and perfumes on flights to destinations outside Europe. This is a continuing subsidy of £400m a year to aviation, which takes business away from high street shops and reduces revenue available for public services. The tax break helps airports keep landing charges down, thus further stimulating demand for air travel. No international treaties prevent removal of these concessions.

## 6 Climate Change Levy (CCL)

The 2005 Budget stated that the Climate Change Levy had proved effective. However, the Levy was frozen.

We advocate that the Chancellor should increase the levy in line with inflation – ensuring that the CCL does not fall in real terms. Industry has performed best of all the sectors of the economy on carbon dioxide, however the Emissions Trading Scheme has been weak and the Government needs to send a message that it not easing off. Not raising in-line with inflation amounts to reducing the incentive the levy brings to bear.

## 7 Other climate policies:

In addition to the above six measures, here are a further suite of measures the Chancellor could introduce if he wants to tackle climate change.

### 7.1 Energy Efficiency

The Energy Savings Trust estimate that simple energy-saving measures in the home can save householders £6 billion a year, and 48 million tonnes of carbon dioxide a year. Energy efficiency makes economic sense for all sectors, yet the regulatory and fiscal framework still makes it difficult for people and business to invest in energy efficiency. Energy Efficiency is the most cost effective strategy for tackling climate emissions, and essential for tackling fuel poverty. Fiscal measures to incentivise it must be given much greater weight in future budgets. We advocate:

- **Council tax rebates for energy efficiency improvements**

Council tax rebates can also be used to encourage energy efficiency. Braintree District Council in Essex launched a scheme in November 2004 with British Gas where householders who install cavity wall insulation can claim a £100 rebate on their council tax. So far 250 homes have already saved more money than the cost to them of insulation improvements<sup>10</sup>. The Government could provide funds to compensate councils who set up such schemes.

- **Stamp duty rebates for energy efficiency improvements if energy efficiency improvements are made in the first 6 months.**

There are currently many barriers to uptake of energy efficiency measures. Many are psychological – people don't like to invest money in things they can't see (like lagging); people don't like spending to save. Research by Sheffield University has shown that the time of purchase is the most likely time for people to make improvements to their home. The expected introduction of home information packs in 2007, required through the Housing Bill, which will have to include an energy efficiency rating, makes now the ideal opportunity for

the Government to give people a fiscal incentive to take action on this energy efficiency information when they buy a home.

- **Extend the tax allowance for landlords to cover energy saving materials.**

It is particularly difficult to improve energy efficiency in the rental sector, as there is little incentive for either occupant or landlord to do so. ACE state: *“Landlords can already claim a tax allowance when replacing household materials (not just energy-saving materials). On the other hand, the installation of materials that improve the property is not tax allowable – as it is defined as “betterment”. However, the definition of “replacement” has recently been revised, so that double glazing can now be classed as “replacement” and is therefore tax allowable. This means that the precedent now exists for extending the definition of “replacement” to include the installation of all energy-saving materials. ..this would give landlords a big incentive to improve the energy efficiency of their housing stock”.*

- **Cut VAT on energy efficiency products**

Householders wishing to install energy efficient products in their homes (such as insulation or energy -efficient light bulbs) to cut their energy-use are charged 17.5 per cent VAT. But they are only charged five per cent VAT on their fuel bills. The Chancellor could reduce VAT on energy efficient materials and products to 5 per cent<sup>11</sup>.

- **Energy Efficiency Commitment (EEC) Reform**

The existing EEC should be transformed into a far more flexible trading mechanism incorporating features of the renewables obligation, with targets for the scheme expressed as a proportion of overall supply of energy. In other words, an obligation on suppliers to deliver a set reduction in demand – a supplier cap on the amount of energy they can use to service their customers. Reform should ensure greater incentives to trade and include a buy-out mechanism to limit cost impacts.

## 7.2 Transport

In addition to the bigger transport measures outlined above on vehicle efficiency and using road fuel duty increases to improve public transport, some additional measures particularly on work-based travel would reduce congestion and climate emissions.

- **Workplace travel plans**

Use the corporation tax system to give direct encouragement to employers to adopt workplace travel plans. Specifically,

- Travel Plan Tax Credits for employers on specified Travel Plan measures. This would parallel tax credits for R&D expenditure, so that taxable profits would be calculated after deducting 125% (150% for SMEs) of qualifying revenue account spending, instead of the normal 100%.
- Exemptions from personal taxation on employer-subsidised maintenance and insurance of bicycles, and cycle rescue (particularly valuable to women and other vulnerable cycle commuters).

- Extension of the “bus fare contract” concession in the 2002 budget (which enables employers to provide reduced or free fares on local public buses serving their sites), to bulk-purchased bus travelcards and stored value transport smartcards, in order to cover situations where single route season tickers are not on sale and where transport authorities are not geared up to negotiate employer subsidies for individual routes.

These minor concessions would help more people join the workforce, and contribute to policies on congestion, climate change and health.

- **Company cars – calculating car benefits for tax return purposes**

Greener company cars pay less tax. The 2005 Budget froze the level of carbon dioxide emissions qualifying for the minimum petrol percentage of 15% - at 140 grams of CO<sub>2</sub> per kilometre up to March 2008. The Chancellor could continue previous practice of progressively tightening the requirements for emissions. To reflect improving technical standards and the urgency of climate change, and in order to provide certainty over the direction and speed of change needed, the Chancellor could announce the reduction of the minimum qualifying level by 5 g/km from April 2008, with subsequent annual reductions of 5 g for each of the steps up to the maximum of 35%. This would enable the motor industry to plan accordingly<sup>12</sup>.

- **Approved mileage rates**

The current rates for cars (40p a mile for the first 10,000 business miles; 25 a mile thereafter) are generous. The high rate below the threshold encourages car use for business and facilitates schemes for the purchase of private vehicles which depend on high business mileage. The 15p extra for the first 10,000 miles contributes disproportionately to the fixed costs of private cars. The Chancellor could halve this threshold, at least, to 5,000 miles.

- **Car parking**

The provision of free parking by employers as a tax-free benefit discourages getting to and from work by means other than cars. Previous proposals for workplace parking levies applicable in local authority areas have not been taken up because of competition for jobs between neighbouring areas. To deal with this, the Chancellor could introduce a national levy on parking at workplaces, with extension to other destinations, such as out-of-town superstores. The revenue from this could be used to fund the Travel Plan concessions highlighted above.

- **Review congestion charges paid by employers**

Congestion charges paid by employers for employees using company cars for commuting and other private use and not subject to tax, but are treated as covered by the Car Benefit Charges. So, in London, a further potential untaxed benefit in kind of up to around £2000 per year can be added to the existing untaxed benefit of car parking (also worth up to £2000 per year). This is an incentive for the provision of company cars in conflict with transport, environment and social policies, which needs reform.

## 7.3 Aviation

In addition to increasing Air Passenger Duty and removing tax exemptions from VAT on domestic flights and on duty-free, other measures could be introduced:

- **Introduce kerosene tax on domestic flights.** Netherlands and the USA have done this, and the UK Government has said that its absence is an anomaly.
- **Work with EU partners to remove barriers to taxing aviation fuel or charging for emissions** on flights within the EU, and to from all destinations
- **Impose VAT on air fares to EU destinations** (as well as VAT on air fares on domestic flights) with an equivalent sales tax on fares to other destinations.

## 7.4 Waste

The Government has European obligations to dramatically reduce the amount of material going to landfill. It also has a repeatedly stated commitment to implementing the waste hierarchy. As well as meeting waste goals, this will help reduce climate emissions, either here or abroad. Each step up the waste hierarchy reduces the total amount of carbon emissions. To help meet these goals, the Chancellor can:

- **Increase the landfill escalator to £5+ a year**

A higher landfill tax will divert more resources towards re-use and recycling. The Household Waste Recycling Act requires local authorities to introduce doorstep recycling to every household by 2010. Providing a top quality doorstep recycling collection of household waste across England and Wales will cost £375 million. Landfill tax revenues of £75million in 2005-06, rising to £220 million in 2007-08 could fund this infrastructure. The Government states that £35 a tonne is its target level of landfill tax. This level will not be reached until 2011 with the current £3 a year rise, but with a £5+ a year escalator, it would be reached by 2008.

- **Commit to including incineration in a broader tax covering all disposal.**

This would reflect the position of incineration below recycling, reduction and reuse in the waste hierarchy, and also the greater carbon savings further up the hierarchy.

- **Remove the perverse incentives currently in place in favour of incineration;**

As part of the review of the Renewables Obligation in 2005, the Government should assess the existing tax breaks and support measures on waste management options, remove the existing perverse subsidies received by thermal technologies and increase the subsidies received by recycling. This would be more effective at meeting climate change goals, and implementing the waste hierarchy. Existing subsidies contradict waste and energy policy. Current subsidies for thermal waste technologies such as incineration, gasification and pyrolysis are holding up the development of a more sustainable waste system. These subsidies pull in the opposite direction to waste policy because recycling is higher up the waste hierarchy than burning waste. It also make little sense in terms of averting climate

change. Recycling saves more energy and creates fewer greenhouse gas emissions than thermal treatment of waste. For example, recycling a tonne of aluminium saves 53,000 kWh and recycling textiles saves 4,700 kWh per tonne. Three perverse incentives exist:

- Gasification and pyrolysis (types of thermal treatment for waste) currently receive £8.40 a tonne and £4.80 a tonne respectively from the Renewables Obligation. Although these technologies create some energy, it is nowhere near the amount of energy that is saved when materials are recycled.
- Incineration is eligible for relief from the Climate Change Levy at £1 a tonne on the fraction of biodegradable waste burned. The tax break gets bigger the more biodegradable waste, such as paper and garden waste, that incinerators burn. It therefore discourages composting and recycling of paper. This adds up to £4.9 million a year.
- Incinerator operators also receive £4.35 per tonne of packaging burned, even though some of this packaging is fossil-fuel based plastics.

Such measures would also help the Government's resource productivity agenda, and its aim for the more "prudent use of natural resources".

## 7.5 Housing

Reducing the environmental impact of housing and ensuring it is built in appropriate locations are both central to sustainable development. New-build housing could make a major contribution to reducing carbon emissions, but if it is built to low environmental standards, and in locations demanding large amounts of travel then it will lock us into more decades of carbon-intensive lifestyles.

The Government should end VAT incentives for new-build housing, but introduce VAT relief for those new build on brownfield sites, for social housing schemes or for properties meeting high eco-homes standards.

We strongly support Treasury initiatives to consider differentiated and improved ways of recouping the betterment that arises from the grant of planning permission. We are concerned that the current localised and ad hoc collection of betterment through planning obligations is a regressive measure yielding most in areas of high demand and land values.

The Chancellor should consult publicly on options including a land value tax and a graduated betterment tax with higher rates for green-field sites and lower rates on brown-field sites. The revenue should be at least partially centrally distributed to ensure that the chosen measures are progressive, for example by contributing to sustainable development in regeneration areas.

## 7.6 Power generation

Other measures to promote renewable energy and electricity generation include:

- **Develop new tax incentives to encourage investment in the next generation of renewables – tidal, wave and off-shore wind energy.**

Britain has the best marine potential in Europe. Tax credits for developing and installing these renewable sources will reduce their cost and investment risk. New tax incentives will create major opportunities for UK businesses, which will help UK remain competitive with other nations (e.g. USA, Germany, Spain, Denmark and Japan) who are quickly building up expertise, patent holdings, manufacturing capacity and market share in this rapid growth

- **Bring in a tax break for farmers who install renewable energy equipment**

Farmers and renewable energy are typically good partners. Farmers in Denmark, often working cooperatively, have been central to the wind-power revolution and supply diversity. As well as receiving subsidies for capital investment by private cooperatives, farmers have enjoyed a tax exemption on 40% of the income from electricity sold. The Home and Farm Wind Energy Systems Act in the United States proposes a 30% investment tax credit for investments in wind power.

- **Windfall tax on oil companies**

The recent large windfall profits by oil companies based on the rises in global oil prices could be taxed by Government to provide a multi-billion pound fund for investing in renewable technologies to heat and power public buildings. This would be a spur for innovation, reduce the medium and long term energy costs for public buildings, and reduce climate emissions.

- **Biofuels**

\*\*\*\*Please note that due to further evidence about the damaging effects of biofuels on the environment and communities, and due to the Government and EU's failure to address these issues, Friends of the Earth has updated its position on the use of these fuels. Please visit [www.foe.co.uk/campaigns/biodiversity/](http://www.foe.co.uk/campaigns/biodiversity/) for the latest briefing on this issue.\*\*\*\*

We would welcome the introduction of a renewable transport obligation requiring that a proportion of all road transport fuels in the UK should be sourced from accredited renewable sources. Fuel suppliers would either supply the target percentage of biofuel, or choose to pay a penalty. The revenues raised would be proportionately distributed to those who supplied complying fuels, encouraging growth in supply up to the obligation target. There would be economic and environmental benefits, and the costs to the consumer of such a scheme would be negligible.

We believe however that there are two crucial caveats. First, the accreditation must ensure that only sustainable sourcing occurs – for example that biofuels are not sourced from environmentally damaging monoculture plantations in developing countries, such as palm oil in Indonesia. Otherwise we will simply be swapping one environmental problem for another. It is essential that the accreditation rules are strong and set out in advance, to ensure that unsustainably sourced biofuel production is not boosted by the introduction of a UK

obligation. Second, biofuels need to be part of a broader biomass strategy, which considers the most economically and environmentally effective use of all types of biomass, for both electricity and heat.

## References:

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- <sup>1</sup> Estimate of total insured and uninsured loss figure of £150 billion based on i) insured losses cited by risk-modellers Air Worldwide Corporation \$44 billion Katrina, \$2.5-5 billion Rita. [http://www.air-worldwide.com/\\_public/html/newsitem.asp?ID=800](http://www.air-worldwide.com/_public/html/newsitem.asp?ID=800) . ii) Uninsured losses for Katrina widely reported in US media as being \$100 billion, citing Government sources. iii) Uninsured losses may be a higher proportion of total losses for Rita, with AIR Worldwide reporting: “In addition to being a smaller and less intense storm, Rita’s strongest winds impacted an area with far fewer insured properties than Katrina.”
- <sup>2</sup> Swiss Re, 2004. Natural disasters and man-made disasters in 2003.
- <sup>3</sup> Swiss Re, 2004. Natural disasters and man-made disasters in 2003.
- <sup>4</sup> Energy Savings Trust, 2004. Forecasting the Future.
- <sup>5</sup> Friends of the Earth analysis of all car adverts in the first two weeks of September 2005 in the 10 best selling national daily and Sunday newspapers and two best selling motoring magazines.
- <sup>6</sup> Institute of Fiscal Studies, Briefing Note on Fuel Taxation, June 2005.  
<http://www.ifs.org.uk/bns/bn55.pdf>
- <sup>7</sup> Data up to end 2004 supplied in answer to Parliamentary Question from Norman Baker MP, [http://www.publications.parliament.uk/pa/cm200405/cmhansrd/cm050224/text/50224w06.htm#50224w06.html\\_sbhd5](http://www.publications.parliament.uk/pa/cm200405/cmhansrd/cm050224/text/50224w06.htm#50224w06.html_sbhd5) . Data from end 2004 to end July 2005 derived from Office of National Statistics Consumer Price Index data set, <http://www.statistics.gov.uk/pdfdir/cpi0805.pdf>
- <sup>8</sup> National Travel Survey, 2002.
- <sup>9</sup> Social Exclusion Unit, 2003. Making the Connections.
- <sup>10</sup> <http://www.braintree.gov.uk/Braintree/news/press%20releases/5064energysavings>
- <sup>11</sup> VAT is charged at five per cent on energy saving products provided it is installed by a builder, who can then claim the VAT back.
- <sup>12</sup> see <http://www.hmrc.gov.uk/helpsheets/ir203.pdf> for current regime.