



## **Friends of the Earth briefing Committee on Climate Change advice 1 December 2008 - FINAL**

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### **Background**

On 26 November 2008 the Climate Change Act became UK law, committing the country to cutting its greenhouse gas emissions by 80 per cent of 1990 levels by 2050 – and making this country the first in the world to introduce a legally-binding framework for cutting emissions.

The campaign for this ground-breaking piece of legislation, which should put the UK at the forefront of international efforts to tackle climate change, was led by Friends of the Earth through The Big Ask climate campaign which was supported by 200,000 people and Radiohead frontman Thom Yorke.

The Climate Change Act also sets up the independent Committee on Climate Change (CCC) to provide transparent and independent advice on the quantity of greenhouse gas emissions that the UK can release during the first three "greenhouse gas budgets" - each lasting five years. The Government will then examine this advice and set official budgets in March 2009 - at the same time as the economic Budget. From that point on, greenhouse gas emissions will be scrutinised through an annual cycle of reports.

Each spring, the UK's greenhouse gas emissions will be reported. In the summer, the CCC will then assess these figures and report back on whether the Government is on track to meet its five year carbon budget. In the autumn, the Government will respond to this progress report, proposing any policy changes that may be necessary. A further report will take place at the end of each five year budget determining whether or not it was met.

The CCC also has a brief to examine the latest climate science and, if necessary, suggest changes to budgets. It can also be asked by Government to study specific questions, and must be consulted before key policy decisions are made by Government.

The Climate Change Act is designed to set up this process - it does not cover the policies needed to meet the targets and budgets. It is of course vital that Government gets these policies right.

Friends of the Earth has six challenges for the Climate Change Committee:

- To call for a 40 per cent cut in all UK greenhouse gas emissions by 2020;
- To ensure that the five-year carbon budgets reflect emissions from aviation and shipping;
- To recommend that the UK makes 100 per cent of its necessary emissions reductions from action within the UK;

- To recommend that no further coal-fired power stations are built without carbon capture and storage from the outset, with immediate effect;
- To advise the Government to announce a massive investment in renewable energy in Spring 2009;
- To advise that all further airport expansion should be abandoned with immediate effect.

## **What will the Committee on Climate Change advice mean for UK climate policy?**

### **1. Introduction of carbon budgets rather than medium term targets**

The independent committee's advice will recommend UK greenhouse gas budgets for the first three budget cycles of 2008-12, 2013-17 and 2018-22.

The introduction of greenhouse gas budgets has enormous significance for UK climate policy. This will enable the Government to know what quantity of greenhouse gases the UK economy can emit in a five period. For example, if it emits three quarters of that budget in the first half of the period, it can only emit one quarter of the budget in the second half. The climate change strategy will need to be assessed annually to ensure it can deliver the emission reductions that are needed to set the UK on a pathway to a thriving low-carbon economy.

The national carbon budget will also require the Government to identify the quantity of greenhouse gases each sector of the economy (domestic, industry, surface transport, public sector etc) can release within each given five-year period - and therefore the size of the cuts in pollution it needs to make.

Going easy on one sector will require bigger cuts from another. For example, if the investment in household energy efficiency is not significant enough to cut domestic sector emissions, greater cuts will need to be made in another sector such as transport or industry.

At present there are two loopholes in the budgets that must be closed.

#### **Loophole 1: Carbon Trading**

The Climate Change Act allows emissions reductions by other countries to be 'purchased' and to count towards the UK's carbon budget. The Government shouldn't be allowed to wriggle out of making cuts at home by doing this.

The prime purpose of the new law is to reduce the UK's emissions through domestic investment in energy efficiency and low-carbon technologies, rather than buying in cuts from abroad. Domestic action would create exciting new business opportunities and thousands of new jobs and have a far greater long-term benefit to our economy. Allowing the purchase of credits from abroad might lessen the short-term costs - but has major negative implications for the economy and the environment in the medium to long-term:

1. Relying on offsetting to meet targets for cutting emissions will significantly reduce the likelihood of avoiding catastrophic climate change. The world's biggest polluters must rapidly move towards the development of low-carbon economies if we seriously want to avoid emissions reaching dangerous levels. Friends of the Earth is calling for industrialised countries to cut their domestic emissions by at least 40 per cent by 2020.
2. The need for increasingly steep global cuts in greenhouse gases will mean such purchases are likely to become more expensive as overall greenhouse gas 'caps' become more stringent. Economies that have relied on this strategy to accommodate

carbon-intensive infrastructure and lifestyles will be locked into levels of emissions that are increasingly expensive and difficult to cut.

3. Cutting emissions in the domestic economy to stay within budgets offers genuine economic opportunities. The Government's Stern Review on the economics of climate change was clear about these opportunities. Buying our way out of our responsibilities would delay the UK's transition to becoming a low-carbon economy, and make it more likely that the UK loses out to other countries in these new global opportunities.

Although the Climate Change Committee Chairman Lord Turner believes that in the future there should be no trading of this type, it is likely that the Committee will not preclude the use of trading in these first three budgets.

However, there are two actions that the Committee can advise Government to take to mitigate the damage:

1. Adopt a principle of achieving 80 per cent of the UK's emissions cuts from domestic action;
2. Push for the next phase of the EU Emissions Trading Scheme to remove the option of buying credits from outside the EU.

### **Loophole 2: Aviation and Shipping**

The Climate Change Committee decided in October 2008 that, due to technical accounting difficulties, aviation and shipping would not be included in the first budget. However, in line with the principle that the budgets should cover all sectors, the Committee made clear that it would tighten budgets to account for aviation and shipping. Friends of the Earth says that this must be part of the first budget period

In this first report the committee needs to set out exactly how that budget tightening will occur and what trend in emissions reductions from these sectors the committee is assuming.

### **Annual status reports by the Committee on Climate Change on whether Government is keeping within its budget**

The system of annual reports on progress set up by the Climate Change Act will help ensure Government keeps on track and delivers sustained emissions reductions.

If the Government uses most of its five year greenhouse gas budget in the first two years because it did not cut emissions fast enough the CCC will identify how it can make quicker cuts in the remaining three years to stay in budget. The Government's climate policy can no longer be about putting off action to meet a target a decade or so away – it will be about effective action now.

### **Six Friends of the Earth challenges for the Committee on Climate Change in detail:**

#### **1. Call for a 40 per cent cut in all UK greenhouse gas emissions by 2020**

The crucial advice that the Committee will give is the size of the greenhouse gas budgets - and the 2020 emissions reduction target this will define. The Committee has already increased the emissions reduction target for 2050 to 80 per cent in response to both strengthening scientific evidence and a lack of progress to cut emissions in the past few years.

These first budgets and the 2020 target must also be dictated by the science and in particular the aim of keeping global temperature increases below 2°C. This has been defined by both the EU and UK Government as the goal of action on climate change. The critical issue in keeping

temperature rises under 2°C is cumulative emissions – the build-up of emissions over a period of time, not total emissions in any particular year.

The 80 per cent target announced by the Government in October effectively defines the amount of greenhouse gases we can emit in the next 40 years. We cannot emit more than this if we want to have any chance of keeping the rise below 2°C. Just as with the five-year carbon budgets to be announced on Monday, this means that the UK needs to start cutting emissions significantly in the next ten years. If slow progress is made, steeper, more expensive and more disruptive cuts will be needed in future budget periods.

It is therefore vital that the Committee recommends budgets that deliver a significant cut in emissions by 2020. Recent scientific evidence on tipping points, sinks and cumulative emissions and the agreement at the 2007 UN climate talks – the Bali Road Map - suggest that a 40 per cent cut in emissions by 2020 is required in order to avoid the severe impacts that a greater than 2°C temperature increase would bring. But this 40 per cent must include emissions from aviation and shipping.

## **2. Ensure that the budgets reflect emissions from aviation and shipping**

In its interim advice the CCC recommended that aviation and shipping should not be included in the greenhouse gas budgets. Instead the budgets should take account of emissions trends from these sectors by demanding more from other sectors as necessary. This position needs clarifying because if other sectors, such as households, are going to be asked to make greater cuts in emissions because of rising emissions in aviation the method for doing so needs to be clear.

Friends of the Earth is calling on the CCC to make a 40 per cent cut in all greenhouse gas emissions by 2020 including aviation and shipping. The CCC must therefore publish a projection of expected emissions from aviation and shipping and make absolutely clear how much tighter the five-year budgets covering all other sectors has had to be to accommodate emissions from these sectors.

This will make the impact aviation emissions will have on the regulation of other sectors transparent and will allow this to be reviewed each year.

## **3. Recommend that the UK makes 100 per cent of its necessary emissions reductions from action within the UK**

While it is important for the UK to support low emission development in poor countries, this must not be a substitute for emission cuts at home. The CCC will advise the Government on the extent to which it should stay within the carbon budgets it sets through investment and efficiency savings in the UK and to what extent it can count emission reductions paid for in other countries.

Taking action in the UK offers genuine economic opportunities. Improving energy efficiency and investing in low-carbon markets and technologies will stimulate innovation and create jobs. It will also increase energy security as we cut our over-dependency on fossil fuels. It also demonstrates to the international community genuine leadership on climate change and the benefits of embracing a low-carbon economy.

Depending on buying credits from abroad is a big risk. These credits are likely to become increasingly expensive as overall caps start to bite. Economies that have relied on a strategy of importing cheap credits to accommodate carbon-intensive infrastructure such as airport

expansions and coal fired power stations will be locked into levels of emissions that are increasingly expensive and difficult to cut.

Friends of the Earth wants the Committee to recommend that 100% of UK emission cuts are made within the UK. This should include phasing-out the use of credits from outside the EU within the Emissions Trading Scheme.

#### **4. No Coal-fired power stations to be built without carbon capture and storage**

In order to meet the legal requirements of the Climate Change Act we urgently need to decarbonise the UK energy system.

The EU Emissions Trading Scheme (ETS) was launched in 2005 and covers around 45 per cent of EU carbon dioxide emissions. Under the scheme, power stations, refineries and heavy industry across Europe are given a limit to how much carbon dioxide they can emit. Participants in the scheme must hold sufficient carbon dioxide permits to match their levels of pollution. Companies that exceed their permits must buy extra allowances from those firms who have managed to reduce their emissions - or pay stiff fines.

The EU ETS is being amended, and a new scheme will start in 2012. The details are currently being negotiated as a part of the EU Energy Package, likely to be finalised by the end of 2008. Friends of the Earth says that the post-2012 scheme will still be far too weak and that too many 'credits' are likely to be available to cut carbon emissions from the UK power sector. It looks likely that after 2012 nearly half (45 per cent) of emission cuts under the ETS will be met through the purchase of project credits.

In the absence of a strong ETS, it is essential that the UK Government produces a coherent plan for dealing with the power sector. Most crucially, the CCC should recommend that new coal power stations should not be built without carbon capture and storage (CCS) fitted from the outset and that the Government adopts a greenhouse gas emissions standard for power plants. The emissions standard should set carbon dioxide emission limits for all new generating plants – and these should be significantly tightened if CCS technology is proved to be technically and economically viable.

#### **5. A massive investment in renewable energy**

Investing in green energy and cutting energy waste will create exciting new business opportunities and help lead us out of recession. It would generate tens of thousands of new jobs, end fuel poverty, cut our dependency on fossil fuels – and help ensure that we meet our targets for tackling climate change.

The CCC will set out how it believes the energy sector can cut emissions. Friends of the Earth calls on the committee to recommend that the UK produces a genuine industrial strategy for the expansion of renewable energy in the UK. This should include:

- putting investment in green energy (and cutting energy waste) at the heart of energy policy;
- giving the energy regulator, Ofgem, a duty to deliver on our climate change commitments;
- investing in less commercialised technologies for wave and tidal power generation;
- and, investing in training and jobs, promoting manufacturing and working with Unions to ensure that we really see a renewable energy revolution.

#### **6. Airport expansion must be abandoned**

The Government plans to allow UK airports to expand, including Heathrow, to cater for an increase in air travel.

But there are mounting fears that if UK airports do expand and air travel grows as anticipated, it will be extremely difficult – if not impossible – to meet UK targets for cutting emissions.

Climate experts from the University of Manchester's Tyndall climate centre have warned that new technologies will not come on stream quickly enough to offset the projected increase in flights, and that the only practical solution is to curb the demand for flying.

The committee must urge the Government to urgently review its aviation strategy, and in particular plans to allow the expansion of UK airports.

## **THE ECONOMICS OF DEVELOPING A LOW-CARBON ECONOMY**

### **It's economically affordable**

The CCC has reviewed a range of cost estimates for global emissions reductions including those from the International Energy Agency, the UK Treasury-sponsored Stern Review and the International Panel on Climate Change. The Committee concluded that meeting the 80% target would cost the UK 1-2% of GDP in 2050 and was both affordable and was also far cheaper than the costs of inaction.

### **It's cheaper to act now**

There are a number of reasons why taking action now rather than putting off taking action is cheaper:

- Efficiency gains save money. And the sooner they happen the more money is saved and spent on other more useful things in the economy.
- Innovation is stimulated sooner enabling effective and cheaper solutions to reach the market quicker and so reducing costs and emissions quicker.
- If investments are aimed at transforming the UK towards a low-carbon economy then the UK will be locked into even more carbon-intensive infrastructure, such as coal fired power stations and new runways, that will make emissions cuts more expensive and more difficult in the future.
- Not cutting emissions early on means bigger cuts later - and extremely rapid, forced cuts are more likely to cause recession.
- Failing to urgently cut emissions will lead to greater cumulative UK emissions thus increasing the chances of major climate change impacts.

### **Kick-starting a green industrial revolution and tackling the recession**

Investing in a low carbon future, slashing energy waste and developing green energy, can simultaneously help tackle the recession and the urgent need to significantly cut greenhouse gas emissions.

Experts, such as former World Bank chief economist Nicholas Stern, warn that failure by the UK to invest now in a greener future will lead to higher costs later. It is vital for the economy that we seize the economic and environmental opportunities of green investment – other countries already are and we mustn't be left behind.

The UK could be a world leader in green energy - it is the windiest country in Europe and has the continent's best wave and tidal resources. Unfortunately we lag near the bottom of the European renewable energy league table (ahead of only Luxemburg and Malta).

Some facts and figures on the economic and environmental benefits of cutting emissions and moving to a low-carbon economy. :

## **1. It would help to cut energy bills of households and businesses**

The initial EU papers on its programme for tackling climate change by 2020 estimated that a 20 per cent cut in energy consumption would lead to Euro60 billion per year savings.

In California energy efficiency measures between 1972-2006 have driven household energy savings of \$56 billion.

British businesses could save themselves £2.5bn over the next 12 months if they implemented energy efficiency schemes that would also cut 22m tonnes of carbon emissions according to research by the Carbon Trust. This is equivalent to £7m a day savings or 100,000 staff salaries.

## **2. It would create jobs**

The German renewable energy sector is worth £20bn and employs 250,000 people, compared to just 20,000 in the UK – but the UK lags near the bottom of the European renewable energy league table, despite being the windiest country in Europe and having the continent's best wave and tidal resources.

California has followed strong energy efficiency policies over the last 30 years resulting in the state having 40% less electricity use per capita than the US average and 1.5 million new jobs. The EU estimates that increasing energy efficiency by 20% by 2020 would create 1 million new jobs.

## **3. It would boost growing industries with enormous export potential**

Markets for low-carbon energy products are likely to be worth at least \$500bn by 2050 and perhaps much more (Stern, p269).

In 2006 the market for renewable energy generation products alone was estimated to be worth \$38 billion (REN21, 2006. Renewables Global Status Report 2006 Update. Worldwatch Institute, Washington DC).

## **4. It would increase energy security**

By 2012 Germany could be able to draw on 12 GW of generation capacity from solar power, equivalent to the UK's entire nuclear power fleet.