Climate change: the risks we can’t afford to take
Part 2

The danger of delaying public investment
Britain finds itself at an historic moment. The threat of climate change is clear. The Committee on Climate Change has outlined the path we must take in reducing emissions from all sectors of the economy. Government action on an unprecedented scale is both necessary and urgent. This action will come at a price and, in times of economic uncertainty, there is a risk it will appear too expensive and too difficult. The private sector will need to do much, but government expenditure to kick start major programmes in energy efficiency, research and development and low carbon infrastructure will be absolutely essential if we are to meet the targets in the climate change act.

Alistair Darling and Gordon Brown may be tempted into thinking that such major investments are unaffordable. But the real risk is that we delay investment in the programmes, technologies and infrastructure that will develop the skills and physical capacity to meet our targets and prevent dangerous climate change. This risk is real, and it’s one we can’t afford to take.

In the second of this series of five Green Alliance publications examining the risks to the implementation of the Committee on Climate Change’s recommendations, Paul Ekins, professor of energy and environment policy at King’s College London and a member of Green Alliance, sets out what the government must do in respect of public investment, and why.

The scale of the challenge
The government is faced with a daunting challenge. The climate change committee has recommended a minimum greenhouse gas emissions reduction of 34 per cent (against 1990 levels) by 2020, with the prospect for further reduction to the statutory 80 per cent reduction target by 2050.

To meet the 2020 target nearly all the emissions reduction will need to come from the large-scale deployment of renewables, such as wind energy or biomass, or from simply using less energy, either by doing less driving, flying, heating and so on, or by doing it more efficiently.

The timescale is too short for significant new nuclear or carbon capture and storage (CCS) technology to be on stream by then but, if these technologies are to make a contribution post-2020, then there will need to have been considerable investment in the next ten years to demonstrate that they are commercially and technically feasible.

The balance between public and private investment
Most of the investment will need to come from the private sector. This was the case even before the financial crisis, and emphasises the importance of government creating the right framework conditions to stimulate private investors to put their money into low-carbon technologies. Steve Holliday, CEO of National Grid will say more about this in the next publication in this series but, in my view, an essential element of the framework is a stable and high price of carbon, with the expectation that it will rise over time, something the European emissions trading scheme has failed to deliver.

The economic downturn has left a huge deficit in the public finances, which will inevitably have to be addressed at some point by substantial tax increases (probably combined with public spending cuts). It is imperative for a large part of these tax increases to take the form of increases in the price of carbon, ie green taxes on fossil fuels in whatever form. Because public investment will also be critical, some of the resulting revenues must then be used to prime the key investments to start the journey towards a low-carbon economy.

What follows is a thumbnail sketch of three areas where significant public investment will be required if we are to meet the targets set out in the climate change act.

Public investment in R&D
Hopefully one of the least controversial areas for public investment is energy research and development. Investment in energy R&D fell to historically low levels at the end of the last century. It has only just recovered to remotely respectable levels, and there is no prospect of having the low-carbon technologies we will need post-2020 if it is not substantially further increased.

The good news is that even a substantial increase would fit into a small corner of the stimulus packages that are being implemented. The bad news is that R&D is often perceived as an easy element to cut in times of public spending stringency, such as the UK is about to experience. We will know how serious the government is about a low-carbon economy from the fate of publicly funded energy R&D when the time comes.

Household energy efficiency
A further priority for public investment is to prepare the way for a programme of home energy efficiency that is an order of magnitude larger than that currently being undertaken under the carbon emissions reduction target (CERT). The ultimate goal of this programme should be to make one million homes per year super-efficient, which is likely to entail, on relatively conservative assumptions, expenditure of about £10,000 per home, totalling investment of about £10 billion per annum. Even then it would take a quarter of a century to bring the UK housing stock up to the levels of energy efficiency implied
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by an 80 per cent carbon reduction target. The recent consultation is a welcome sign that the government is at last beginning to think at the right sort of scale. It needs to have the courage of its new convictions and propose to go further with an inspiration and vision that can take the people with it.

Home energy efficiency is almost universally described as a low cost carbon reduction option, but it is also a high investment option, and persuading private households to make those investments will be anything but easy, politically. It will require higher energy prices, balanced to some extent by tax discounts, far greater awareness of energy use, eg through the widespread roll out of smart meters, a building industry at the local level that both understands energy efficiency technologies and is prepared to promote them, and a regulatory mechanism that increases the pressure of higher prices to overcome the well-documented inertia of householders, in respect of the installation of energy efficiency measures. There must also be incentives for the householder too. Without all of this, the low-carbon economy will not even get to the launch pad.

Pump-priming low carbon infrastructure

A year ago, before the recession, the need was already clear for government to pump-prime, and prepare the infrastructure for a massive new off-shore wind industry; to subsidise two or three CCS demonstration plants, not just one; to prepare the infrastructure for the hybrid/electric car revolution that is required; and to set the ball rolling for the high-speed train network that will make more aircraft runways both unnecessary and uneconomic.

In the current economic circumstances the huge private investments required will be incomparably more difficult for public investment to seed.

“The government must do what it can in the limited investment space that is left to it”

Nevertheless, the government must do what it can in the limited investment space that is left to it. I am aware that this is a less optimistic view than the Green New Deal rhetoric coming recently from Davos and elsewhere, but I believe it is also more realistic. The fact is that it would have been far easier for the UK and other governments, and for industry and households, to have invested heavily in green technologies in the good times. They didn’t, so they must now do it in bad times if they want the low-carbon economy to have any more substance than the rhetoric that proclaimed the end of boom and bust.

Simply expecting the market to deliver, without further public intervention, pump-priming of energy efficiency measures and support for low-carbon technologies, is a recipe for failure and a risk we can’t afford to take.

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This publication forms part of Climate change: the risks we can’t afford to take, a Green Alliance publication series. For more information visit www.green-alliance.org.uk/climatechange

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