GREEN PARTY

Towards a budget for a Green New Deal

21 November 2008

"This is a package for the short term that makes sense for the long term; a package where the debt we must incur now produces employment, green and financial benefits that more than pay for its cost; a package where the economic causes of the crisis are tackled at their root and a package that the people of the UK need - help in delivering them from a problem that was not of their making"

Richard Murphy, Co-Director of Finance for the Future and Director, Tax Research LLP, and a member of the Green New Deal Group.

A Budget for a Green New Deal - summary

Summary

The responses of governments to dealing with the financial crisis have been to cut interest rates, cut taxes, or increase public expenditure. This Green Party proposal for the Pre-budget Report states that these measures have to be judged in terms of their contribution to the wider economy as well as their effectiveness in dealing with the present economic crisis.

It is the Green Party's conclusion that the present crisis, widely recognised as the worst since 1929, demands nothing less than a Green New Deal. In terms of a budgetary response it suggests a costed £30 billion public expenditure programme in largely labour intensive projects, starting with ensuring that all buildings in the UK are energy efficient and make the best use of renewable energy, and that interest rates should be kept low to encourage such a level of investment.

The report also suggests how private funds can also be encouraged to invest in such a programme via the encouragement of pension funds to secure a safe return for an income derived from saving energy costs and a number of novel savings vehicles.

The report makes some preliminary costed proposals for environmental taxes that could be immediately introduced, offset mainly by reducing VAT. We propose too reforms to the international financial system including significant action against tax havens, both to improve the regulation of the financial sector and to reduce tax avoidance.

The stimulus from the public expenditure programme will significantly reduce unemployment. The programme, combined with the tax changes, will also significantly reduce greenhouse gas emissions.

Finally the report calls for an inquiry into how acceptance by governments of the international neoliberal model caused this present economic crisis and what changes in economic direction could ensure a stable and environmentally sustainable economy.

Such a Green New Deal approach helps tackle not just the financial crisis but, because it reduces the use of fossil fuels, it increases our energy security and independence and helps tackle climate change.

Background

In 2007 a group of campaigners, economists and industrialists, including Green Party Leader Caroline Lucas, met to discuss the concept of a Green New Deal. Their report, published in July 2008,[1] argued that a strategy to combat severe recession would also be appropriate to the beginnings of a substantial strategy to deal with climate change and the implications of an encroaching peak in oil production. The Report has been welcomed by the Green Party as an important first step towards a more sustainable and equitable economy.

The extent of the consensus over the severity of the economic crisis is now remarkable. Already commentators are discussing a number of the policy measures anticipated in the Green New Deal.

However, the Green Party remain concerned that policymakers pay only lip service to the severity of the crisis. The associated policy measures that have been most fulsomely advocated are either wrong-headed or half-hearted. Radical action might be advocated, but its end is the preservation of the *status quo*. On the contrary, the Green Party argue that the unfolding crisis should be regarded as indicating the necessity of fundamental change to our society, our economy and our approach to the limited and fragile resources of our planet.

The Green Party therefore takes the opportunity of the publication of the Government's pre-Budget Report to launch a preliminary and summary statement of economic policy measures to implement the Green New Deal. It has been written in collaboration with some members of the Green New Deal Group.[2] While set in the context of and aimed at the present crisis, these policies anticipate the broader economic, social and environmental strategy of the Green Party. The policies set out here are for immediate implementation with a time horizon of no longer than one year. We propose to set out a more comprehensive medium term set of proposals for next year's Budget in the spring.

The basic approach

First we are quite clear that significant support for the economy is required. This is true for both monetary policy (interest rates and money supply) and fiscal policy (government spending and taxation). The Conservative U-turn announced on 17 November, where they will only countenance tax cuts matched by cuts in government spending,[3] seems to be a return to their austere monetary policies of the early 1980s, will, like then, only lead to a prolonged recession, massive unemployment, huge

[1] A Green New Deal, the first report of the Green New Deal Group, published by the New Economics Foundation, to be found at http://www.neweconomics.org/gen/z_sys_publicationdetail.aspx?pid=258.
[2] The Green New Deal Group is, in alphabetical order:
Larry Elliott, Economics Editor of the Guardian
Colin Hines, Co-Director of Finance for the Future, former head of Greenpeace International's Economics Unit
Tony Juniper, former Director of Friends of the Earth
Jeremy Leggett, founder and Chairman of Solarcentury and SolarAid
Caroline Lucas, Green Party MEP
Richard Murphy, Co-Director of Finance for the Future and Director, Tax Research LLP
Ann Pettifor, former head of the Jubilee 2000 debt relief campaign, Campaign Director of Operation Noah
Charles Secrett, Advisor on Sustainable Development, former Director of Friends of the Earth
Andrew Simms, Policy Director, nef (the new economics foundation)
[3] See for example http://www.independent.co.uk/news/uk/politics/osborne-to-reveal-tory-tax-uturn-1021668.html

human misery, increasing inequality and will make no contribution whatever to meeting the environmental crisis. We, like the government, reject this approach.

Apart from the Conservatives, there is widespread agreement that the UK economy will need government support as we move into recession. There are three ways in which this support could be provided:

First, the Bank of England could lower interest rates.

Second, the government could offer tax cuts.

Third the government could invest in creating new jobs.

Interest rates, monetary policy and banking

The Bank of England recently cut interest rates to 3%.

Many commentators say the rate should fall further. We agree. When the UK economy is in recession and the Bank of England is forecasting deflation - which means real price cuts - interest rates should be much lower for the foreseeable future. There are good reasons for this.

First, if interest cuts are passed on to mortgage holders, many more households will be able to meet their debts. That means people can stay in their homes because their houses will not be repossessed. That means tens of thousands of people will avoid the social stress that this causes, and the burden it gives to government to re-house them. Even so we will need a ‘Right to Rent’ scheme (see below) to help those who will still face re-possession.

Second, lower interest rates will allow businesses to borrow to pay suppliers, wages and to invest. This is vital if we are to protect jobs and save the economy from a deep slump.

Third, if lower interest rates are passed on, some people will have more cash to spend. This provides an alternative stimulus for the economy that is more cost effective than tax cuts because it is not financed by government debt.

Fourth**,** with the threat of deflation now increasingly recognised, there should be nothing standing in the way of a reduction of UK interest rates to the levels of those in the US. This is an essential long term policy, and we strongly encourage action to ensure that rates are not just cut for the short term but for the long term too. To achieve this it is essential that any current government reaction to the economic crisis increases debt as little as possible, and that the debt in question be used for capital investment that can be self financing in the long term rather than short term tax cuts. The latter will simply result in a ‘shot in the arm’ boost to consumption expenditure, much of the benefit of which will be immediately exported to other countries where so much of what we consume is created. This is the worst possible outcome for the UK: we do not create jobs, we do harm our exchange rate, we do not see the full benefit of our tax cuts in UK employment and we do have to pay for the benefit in the long term by increased government debt. The latter will compete with the private sector for money and increase long term interest rates and so increase the cost of any recovery and so reduces the chance of its success. This is why low interest rates now and in the long term, coupled with government support for real job creation in energy efficiency in the UK, which has a long term payback and a positive impact on the UK's long term balance of payments, is the only meaningful economic policy that the government can adopt which guarantees our sustainable environmental and economic future.

There are other long-term concerns. Our companies have accumulated billions of pounds worth of debt. Our society is built on debt. Too many people spend too much of their lives working for banks. Low interest rates will in the long-term help people avoid this curse. But there is a condition for that to happen. We will have to regulate credit. Low interest rates also in the long-term encourage borrowing. As we have all seen, banks had been reckless with regard to their lending. This cannot happen again.

The government should use its partial nationalisation of the banking system to exert greater control over the amount and direction of lending. We have to restrict the amount that any bank can lend. We have to restrict the purposes for which they can lend it, emphasising loans that will finance a new low carbon economy. We have to protect the victims of irresponsible lending. And we have to restrict lending for the financing of speculation. If we do we can enjoy long-term low interest rates and improve the quality of life for everyone.

The present crisis raises much wider questions about finance and banking policy. There is clearly a case for greater regulation, including at a European level. In the longer run the Green Party sees attraction in considering more radical options such as a nationalised or a democratically controlled banking system, or a nationalised Green Investment Bank. In any event, we wish also to see smaller more local banking institutions, more mutuals, community banks, and a revived banking role for the Post Office, breathing new vitality into its threatened local network.

Public expenditure or tax cuts?

Offering tax cuts has a simple appeal to any politician. It is an instant route to popularity. But on this occasion it is the wrong option. The government must instead, invest in job creation and building the green economy to spend what funds are available to the greatest effect.

Government funds can be used to cut taxes or to create jobs. If used for tax cuts then consumers are likely to spend, especially in the period before Christmas. Because a lot of what is stocked in shops is imported from abroad, the benefit of this consumption will go abroad. That's in part why we have a permanent trade deficit. As a result of the way our economy is geared, tax cuts tend to create new employment in other countries, and not in the UK. That means we export most of the benefit of tax cuts to other countries, while still having to finance the cuts.

And tax cuts financed by government borrowing amount to little more than government encouraged credit card borrowing for everyone – spend now and pay back later in taxes. The mountain of consumer credit is part of the problem, and it is ironic that it is being proffered as part of the solution.

If instead we were to increase public expenditure to create new jobs in the UK, tackling problems that we know exist, there would be a very different outcome.

If we were we insulate all the homes that need upgrading to deal with climate change; or if we were to invest in use of combined heat and power schemes and other new renewable technologies, we would benefit in several ways. First of all we would get a long-term energy saving from our spending which will improve our balance of payments. Second we would create new jobs here in the UK. Third, those new jobs will encourage other new employment in the UK amongst the suppliers to these new activities. And so we create what is called a multiplier effect. That gives us the maximum benefit for each pound of government spending to tackle the recession. And if we add to this programmes for unemployed people to make local environmental improvements, carrying out green work, and a massive training programme for the new skills needed for the green economy, investment in and subsidy for public transport and investment in better waste handling and re-cycling, we will massively increase this effect.

That way we keep people off benefits and retain the economic self confidence of others; we get much needed green investment and enjoy the long-term benefit of better housing. It is often simplistically stated that national economies are like households' budgets i.e. you have to balance the books. As Keynes showed, in a recession when inflation is unlikely, government spending creates the multiplier effect referred to above, especially if you can keep the benefit of that spending within your own economy, with the result that unemployment falls. It is the speed of recovery that pays the debt.

To the extent that we do simply give people money to spend, we should give it to the poorest and most vulnerable. That is not just socially just, they are also more likely than the average tax payer actually to spend the money. So we will put up old age pensions, fund social care for the elderly, and provide more rented social housing.

Some of this spending would be offset by cancelling certain current unnecessary or damaging programmes, such as Trident, ID cards and the roads' programme. This saves £7bn in the first year; in the longer run cancelling Trident alone would save £100bn up to 2050[4], money much better invested in building a zero-carbon economy.

The amount of public expenditure required must depend on the estimated deficiency in demand, which must be subject to a great deal of uncertainty. The figure of £25-30 billion has been derived on the basis of the Bank of England's forecast for the fall in gross domestic product into 2009 (see Annex 1). It is designed to ensure that GDP in 2009 is roughly equal to that in 2008. It is not designed to restore 2% growth, but to be a step towards the Green Party's long term aim of a steady state economy.[5]

A costed summary of this expenditure programme follows. Details are given in Annex 2.

[4] See CND paper on the costs of Trident at http://www.cnduk.org/images/stories/briefings/trident/cost_british_nweapons_07.pdf
[5] As promoted by Herman Daly – see for example Daly, Herman E., *A Steady State Economy: A failed growth economy and a steady state economy are not the same thing; they are the very different alternatives we face*, Sustainable Development Commission, 2008.

Increased expenditure to build a Green economy totalling £21bn

	£bn
Massive programme of home insulation	6
Renewable energy	2
Increase on waste and recycling	3
Public transport	6
Environmental community programme	2
Environmental job training	2

These measures, together with the measures of environmental taxation in the taxation section below, would be expected to reduce greenhouse gas emissions by as much as 6.5% in a full year, which is a start in achieving the 9% pa reductions we believe are necessary, as compared with the 1% or so reduction current government policies are likely to achieve.

Increased expenditure to help the poorest totalling £14bn

	£bn
Increase old age pensions to £100 per week	5
Free social care for the elderly	3
Right to rent	3
New public rented housing	3

Offset by the following cuts in government expenditure totalling £7bn

	£bn
Cancelling new roads	3
ID cards	1
Cancelling Trident	3

leading to a total package of about £28bn, within the £25-£30bn range.

To maximise the impact on domestic production and employment, any associated expenditures should, as far as possible, be aimed at providing work for companies operating within the United Kingdom. Such an approach would be consistent with the Green Party's longer-term goals for the 'localisation' of economic activity.

Predicting the employment consequences of such a programme is not easy. It should be noted that much of the programme, as with investment in the green economy generally, is relatively labour intensive, and so especially suitable for job creation. But just as a very rough guide if each job cost £50,000 to create (and in the green work programme and the training programme costs will be less than half that), a £30bn stimulus creates more than half a million jobs. It is job creation on this sort of scale that is necessary.

So tax cuts look good to a poll-chasing politician, but what Britain really needs are new green-collar jobs here in the UK. That way we get most value for money - and that is what a good Chancellor should supply.

Taxation policy

The Green Party does not support fiscal stimulus based on tax cuts, but it does advocate major reform of the taxation system, including introduction of green taxes and the beginning a switch from Value Added Tax, and immediate action on tax havens.

The Green Party would introduce environmental taxes, which are usually indirect taxes, and balance them by reductions in another indirect tax, VAT, or by expenditure in related environmental areas. A 2.5% VAT reduction helps everybody, and the poorest most. We would in particular follow many European countries in allowing entertainments, accommodation and meals out to take advantage of the reduced 5% rate; we favour conviviality over shopping. We oppose the policy of other parties to balance environmental taxes by reductions in income taxes; this will generally make the tax system more regressive.

For this budget we would introduce the following package of changes in mainly existing taxes which could be made quickly (details in Annex 3) and which overall is broadly revenue neutral

	£bn
Restore over two years the fuel duty escalator	11
VAT on this increase in fuel duty	1
Raise air passenger duty	9
Windfall tax on energy companies	2
balanced by	
Reducing the standard rate of VAT to 15%	11
Reduce VAT to reduced rate (5%) for entertainments, meals out and DiY insulation materials	5
Abolish vehicle excise duty	7

The switch from vehicle excise duties to higher tax on fuel is because the major environmental damage from cars arises from their use.   While overall this will lead to an extra £4bn in taxation from motorists, this is offset by the proposed £6bn subsidy to public transport.

In the longer run we would introduce major reform of the entire income tax and benefits system, replacing most existing benefits by a universal Citizens Income paid unconditionally to everyone, abolishing personal allowances, and introducing a new much higher rate of income tax on the largest incomes. We would also in the longer term introduce taxes on basic common resources, like land. We would also seek to band corporation tax to give greater assistance to smaller companies.

We would consider an important tax exemption. To encourage micro-generation we would exempt income from electricity generated and sold by householders back to the national grid from income tax and VAT.

Curbing tax avoidance - eliminate tax havens and tax dodging accountancy rules

The present crisis has focussed attention on the way major financial institutions have used tax havens to avoid effective regulation, leading to the current crisis. For example it was in tax havens that most of the sub-prime debt was re-packaged and sold. Banks have speculated inappropriately; lent irresponsibly and have been so opaque in their accounting, hiding large parts of their assets and liabilities in tax havens, that they will no longer lend to each other for fear of what is hidden inside each other's balance sheets.

That though is not the only problem with tax havens. We know that the world's banks used them to sell services to customers who want to evade and avoid their obligation to pay tax in the place where they live, including the UK. The loss to the UK from this cannot be quantified with certainty: tax havens are by their very nature extremely secretive, but the USA estimates the loss to be at least $100 billion a year and it would be very surprising if it was less than £10 billion a year to the UK.

We would work with President–elect Obama (who has supported a US Stop Tax Haven Abuse Act) to initiate international action on tax havens. We should recognise that large numbers of tax havens are actually Crown Dependencies or former UK colonies, and that the UK has a particular responsibility for dealing with the problem.

In the UK we would also introduce a Tax Haven Abuse Act like that proposed for the US. An Act of this sort would increase the penalties on any bank assisting people to evade their tax obligations. There will be penalties for banks that issue credit cards to facilitate tax fraud. There would be increased penalties for fraudulent trusts and the people who run them. Lawyers and accountants who set up these schemes should be prosecuted and go to prison. And we would impose economic sanctions on places that would not help us collect the tax that is owing by UK resident people who hold money in tax havens.

The goal will be to collect £5 billion a year. It is possible. It is essential. And it is a modest recompense by the banks for the turmoil they have created.

It is vital too that we tackle tax avoidance more generally. Research published in 2008 suggested that at least £12 billion of tax is avoided by the largest corporations in the UK and £13bn by wealthy individuals.[6] Much of this corporate tax is lost because of the use of tax havens and what are called ' innovative financial structures' designed by accountants, lawyers and banks to transfer the profits of these companies out of the UK.

It is exceptionally difficult using current accounting rules to find out where these profits are relocated. In that case it is hard to tackle the tax abuse. As a result we must demand that the International Accounting Standards Board, who regulates international financial reporting, introduced a new International Financial Reporting

[6] See TUC report at http://www.tuc.org.uk/economy/tuc-14244-f0.cfm

Standards that requires that multinational companies report their performance on a country by country basis so that we know in which places they declare their profits and in which countries they pay their tax.

We believe that this standard will put information into the public domain that will prevent a large part of corporate tax abuse by those companies who wish to claim to be corporately socially responsible but who at present do not equate this with paying the taxes that they owe to the countries that give them their licence to operate.

Financing the Green New Deal

The Green New Deal entails re-regulating finance and taxation plus a transformational policy programme aimed at tackling the unemployment and decline in demand inevitable in the wake of the credit crunch. The Green New Deal will, however, differ from its 1930s predecessor in that there will be a much bigger role for investments from private savings, pensions, banks and insurance.

The public expenditure can be straightforwardly financed. Existing commentary appears to ignore two fundamental considerations. First, increased employment will lead to a reduced burden on benefit expenditure and to increased taxation revenues. Second there will be so-called multiplier effects, following the beneficial effects on production of the expenditure of those newly employed. What is certain is that the public finances will be left in a worse order if no action is taken: the recovery of public finances is dependent not on prudence but on the eventual reversion of recession.

Nevertheless, much of the funding for our £25-30bn stimulus will need to come from government borrowing, at least in the short term. But we think there is a case for some more imaginative government borrowing. Citizens and institutional investors can provide funding for the Green New Deal by investment in ‘Green gilts’ (government bonds), guaranteed not just in terms of an interest rate, but also in terms of their use to reduce carbon. Kiddies Go Green/Families Go Green/Grandparents Go Green bonds could be introduced and revitalise the fusty national savings industry. Governments normally like to steer clear of the constraints put upon them by such hypothecation. However the *Stern Review* showed the level of serious disruption to the economy that will be caused by inadequate efforts to abate climate change, and this should render any such qualms redundant. On top of this, the energy crunch will focus minds on mobilising alternatives to oil and gas as fast as possible. There is a wall of money in pensions and other savings, plus a recognised need by the Government for people to save much more. Guaranteed investments via a Green New Deal programme will help provide the upfront funding needed for the low-carbon future.

Public funding could be augmented by encouraging the use of private savings from individuals, pension funds, banks and other savings vehicles to invest in a government backed Green New Deal. Savings in banks and building societies are at present guaranteed up to £50,000, and such a guarantee could be extended to a Green New Deal investment. This would carry the proviso that such funds would be earmarked solely for investments that reduce carbon use. Savers could also be let off taxes on gains from investment in carbon-reducing infrastructure, as is the case for infrastructural investment in the US municipal bonds market.

Local authority bonds could be the major vehicle for the funds raised for this programme. In the USA, there is a $2 trillion (£1 trillion) municipal bond market. Apart from Transport for London's (TfL's) recent successful £600 million bond issues, such an option is virtually non-existent in the UK. Yet this source of funding, and local democracy, could be promoted relatively easily if the returns on the money saved from the low-carbon investments, minus their cost, were used to repay such bonds. There are no legal constraints on local authorities raising funds through issuing their own bonds, but it has not been encouraged by governments since the 1980s.

In November 2004, the Treasury authorised the Greater London Authority's TfL to issue bonds as part of its £2.3 billion borrowing to improve transport infrastructure. TfL is, in legal terms, a local authority. The first issue of the TfL bond in December 2004 easily raised the £200 million required, and in March and December 2006 two further bonds of £200 million each were issued at very competitive rates as the market became more accustomed to such issues.
Such local authority bonds could be spent on ensuring energy efficiency and providing renewable energy for each of the country's three million council tenants, as well as for all other local-authority-owned or -controlled buildings, such as town halls, schools, hospitals and transport infrastructure. Local authority bonds could be an investment route for pension funds and even individual savings to help fund such a crash programme.

Time to rethink the International Financial System

The emerging consensus that liberal finance has in some sense failed society has not been matched by deep analysis of the precise causal processes at work, and how they should be remedied. In particular the economics profession is offering no theoretical lead.

We support present discussions concerning the revival of a Bretton Woods Agreement, and in particular the revisiting of John Maynard Keynes's proposals for an International Clearing Union. For a green economic policy, there are obvious attractions in a more controlled international financial system that offers a good deal of domestic policy autonomy. This would require the introduction of capital and exchange controls. The role of international authority is not simply to endorse half-baked fiscal strategies.

We would want such discussions to include the introduction of a Tobin tax on international financial transactions, and to consider the possibility of a new international currency backed by carbon dioxide emission rights.

However any such discussions must be well informed. We need an international review that takes account of a broad range of views and makes a thorough investigation of the matters at hand, taking into account both the domestic and international perspectives We would not be too surprised if a review into the present international financial system came to a conclusion rather like this:

> 9. The lesson of all this for our present purpose is that in the case of our financial, as in the case of our political and social, institutions we may well have reached the stage when an era of conscious and deliberate management must succeed the era of undirected natural evolution.[7]

which was the conclusion of a1929 review set up by the British Government – the 'Committee on Finance and Industry' (or 'Macmillan Committee').

[7] Cmd., 3987 (1931) *Report of the Committee on Finance and Industry*, London: HMSO.

Annex 1: Why the economy needs a £25-30bn uplift

The Bank of England's central forecast for 2009 is of a decline in GDP of 2%. The assumption is made that this fall in driven by domestic demand, with trade effects cancelling out, and that any change to inflation is likely to be relatively insignificant given the size of the injection and the low level of inflation.

So the forecast fall in GDP corresponds to a fall in nominal GDP of £28 billion: 2 per cent of the estimate of GDP in 2007 of £1.4 trillion. A fiscal injection of similar magnitude would be aimed at preserving the present level of real GDP, and – to some extent – reversing the ongoing fall in unemployment. In fact, multiplier effects should mean that the aggregate impact is larger than the original injection, but given the uncertainty surrounding the likely scale of the downturn, the impact on imports and any implications for prices, precision is simply not possible. Further work on this will be carried out, but the best indications of the impact will only come from putting the measures into practice.

Annex 2

Table of proposed 2008 Pre-budget Report government expenditure changes

Measure	Estimated expenditure in 2009/10	Estimated CO_2 saving (whole year effect[8])	Calculations and sources These calculations are illustrative and designed to provide overall orders of magnitude.
	£Bn	**$MtCO_2e$[9]**	
		Expenditure to build a green economy	
Free home insulation programme	6.0	7.8	Would insulate 4m homes a year for £1500[10] each. Total domestic emissions are 156 $MtCO_2e$.[11] One fifth[12] of that is 31.2 $MtCO_2e$. About half is heating 15.6 $MtCO_2e$, and insulation might save half of that, 7.8 $MtCO_2e$. [13]
Incentives for renewables: - replace renewables obligation with stepped feed in tariffs - expand the capital grants scheme for renewables - low-cost loan scheme promoted to individuals and businesses - expand support for R&D on renewables	2.0	5.5	1 kg of CO_2 is produced for each kWh generated in a coal station.[14] Suppose we stimulate 2.5 GW of extra renewable capacity which would replace the same amount of coal powered power stations. Say that capacity operated half the time, and produced an average of half its total capacity then it would generate 2.5m X 0.5 X 12 X 365 = 5500m kWh saving 5.5Bn kg CO_2 or 5.5 $MtCO_2e$
Almost double expenditure on municipal waste management to increase re-cycling and digestion and reduce landfill and incineration	3.0	3.7	Current spend is about £3.5Bn. [15] Waste management is responsible for 3% of greenhouse gases (mainly methane).[16] We assume we might save 0.5% of this in the first full year, or 0.5% of 733Mta, or 3.7Mta.

[8] The 'whole year effect' is the CO_2 saving over a whole year once the measure has come fully into effect. The effect in the first year will usually be less - for example even if a house insulation programme was started on 1 April and was spread evenly through the year, the first year effect would be a bit more than half (not exactly half as there is less house heating in the summer months) the whole year effect.

[9] Million tonnes of carbon dioxide equivalent, as used in the Environmental Accounts 2007. Note that this is different from the other common measure of million tonnes of carbon.

[10] This is a broad average – these figures from Jean Lambert's 'Hothouses.' Insulating a cavity wall typically costs £260, and this covers two-thirds of houses. The remaining one third of solid walled houses typically cost almost £2000 to insulate the walls. Loft insulation costs around £250. Draft proofing is usually cheap.

[11] Table 2.3, Environmental Accounts 2007.

[12] One fifth because 4m is one fifth of the 20m total stock.

[13] See Jean Lambert's report, Hothouses, p.2.

[14] See http://www.stabilisation2005.com/61_Dr_Jon_Gibbins.pdf, pg2.

[15] Table 3.4 Environmental Accounts 2007.

[16] Report for Mayor of London at http://www.london.gov.uk/mayor/environment/waste/docs/greenhousegas/summaryreport.pdf.

Subsidise public transport by £5Bn a year to allow fare reductions averaging 30%. Spend a further £1Bn to begin major infra-structure improvements, especially to the rail system.	6.0	0	Total receipts for national railways 2006/7 were £5038m, for London Underground £1383m and for all bus services, national and local £5122m in 2004/5.[17] The estimated bus figure for 2006/7 might be £5600m, making a total of about £12bn for that year. So for 2009/10 we might assume £14bn. Thus given that a fare reduction would increase take up, assuming that take-up goes up to £18bn, the average fare reduction would be about 30%. CO_2 already accounted for in reduced road traffic.
Fund work programme for unemployed people under local authority control to carry out local environmental improvements and other local green economy activities	2.0	1	Net cost per person per year would be around £10,000 per year. This is 35 hour week at minimum wage of £5.73 per hour[18] for 52 weeks (£10,500) with an extra 45% for materials and supervision (£15,000), less the saving on jobseeker's allowance (current JSA rate is £60.50 per week[19], but additional pass-ported benefits probably raise costs to around £5000 per year). So £2bn would take 200,000 out of unemployment.
Fund training programme with 50% unemployed participation to train for the skills needed for the new green economy, especially in the construction industry.	2.0	0	Net cost per person per year £10,500 in lieu of wages as above plus say £75[20] X 52 = £3900 for the training. Then offset half the JSA saving from above leaving £12,000. So £2bn would take 170,000 out of unemployment. A six month course would train 350,000 in a year.
Total for first year of the measures above	**21**	**18**	This is 2.5% of total emissions at 733 $MtCO_2e$.[21]
Expenditure to help the poorest			
Increase in old age pension from £90.70 a week for a single person to £100 per week as a first move towards a Citizen's Pension at the Pension Credit level of £124.05 for a single person and £189.35 for a couple.[22]	5.0		There were 11.4m people receiving the basic state pension in 2004.[23] So the gross cost would be 11.4m X 9.30 X 52 = £5.5Bn. But we need to reduce a bit for reduced claims on Pension Credits and other benefits, plus income tax receipts.

[17] Figures from http://www.dft.gov.uk/pgr/statistics/datatablespublications/tsgb/2007edition/sectionsixpublictransport.pdf.
[18] See http://www.hmrc.gov.uk/nmw/#b
[19] See http://www.direct.gov.uk/en/MoneyTaxAndBenefits/BenefitsTaxCreditsAndOtherSupport/Employedorlookingforwork/DG_10018757
[20] Figure from personal experience of civil servant who funded these programmes in the 1990s, uplifted for inflation.
[21] Table 2.3 of the 2007 Environmental Accounts.
[22] Figures from http://www.direct.gov.uk/en/MoneyTaxAndBenefits/PensionsAndRetirement/StatePension/DG_10014671.
[23] See http://www.statistics.gov.uk/CCI/nugget.asp?ID=1276&Pos=3&ColRank=2&Rank=224

End means testing for personal care for the elderly	3.0		Introduced in Scotland in 2002 for £250m over two years.[24] Scotland has 5m people out of 60m in UK as a whole[25] so would expect the annual cost to be about 125 X 60/5 = £1.5Bn. But there has been concern in Scotland that the estimate was inadequate, and we need to add something for inflation – hence doubled to £3.0Bn.
Right to Rent – fund local authorities to buy homes threatened by re-possession and then rent to occupiers	3.0		Experts are expecting about 40,000 re-possessions this year.[26] The average house now costs about £185,000.[27] But the price paid under this scheme will be lower, both because it will not apply to the more expensive houses, and because it is intended that the houses should be bought at a small. We assume here an average cost of £150,000. Not all the 40,000 repossessions would be fall under the scheme (no one not in negative equity would want to use it), and we assume here that 20,000 will. Then the cost of the scheme over one year would be 20,000 X £150,000 = £3.0bn.
New public rented housing – funding for local authorities to buy up, convert, or in some cases build new housing for rent.	3.0		If average cost per unit was £100,000 then this funding would provide 30,000 new homes for rent.
Total for social equity measures	**14**		
Reductions in government expenditure			
Cancel major new roads	3.0		Current road programme is costed overall as £30bn over 10 years. So would expect to save £3bn in one year.
Cancel ID cards	1.0		Current total estimated cost is £5.3bn. We might reasonably save £1bn in the next year.
Cancel Trident	3.0		Total cost[28] is well over £50bn, but savings in one year are modest. Current running cost of existing Trident system are nearly £2bn per year. Total capital cost of replacement system estimated as £25bn over 16 years, so reasonable to assume about £1bn next year.
Total reductions existing expenditure	**7.0**		
Overall totals	**28**	**18**	

[24] See http://www.scottish.parliament.uk/vli/education/resources/learningResources/higherCsExec.htm
[25] Figures from http://www.statistics.gov.uk/cci/nugget.asp?id=6.
[26] See for example http://www.economicsuk.com/blog/000646.html.
[27] See the Times for 8 June 2008, http://business.timesonline.co.uk/tol/business/industry_sectors/construction_and_property/article4071018.ece
[28] All these costs taken from CND briefing at http://www.cnduk.org/images/stories/briefings/trident/cost_british_nweapons_07.pdf

Annex 3

Table of proposed 2008 Pre-budget Report tax changes

Measure	**Estimated Net budget effect in 2009/10 (revenue +ve)**	**Estimated CO_2 saving (whole year effect[29])**	**Calculations and sources** These calculations are illustrative and designed to provide overall orders of magnitude.
	£Bn	**$MtCO_2e$[30]**	
Restore the fuel duty escalator over two years to the level it would have been had it not been abandoned in 1999. This would mean a rise from £0.95 per litre[31] now to £1.43 over two years, or by 25% to £1.19 in the first year.	11	24.3	Duty would have been 83.91ppl in 2006 had escalator continued.[32] Need to increase that by RPI + 3% for two years to 2008, say by 10% giving 92.30ppl. Duty now is 50.35ppl.[33] So increase to restore the escalator would be 92.30 – 50.35 plus VAT at 15% = 48p. Note VAT at 15% because of reduction in standard VAT rate below. So £0.95pl petrol becomes £1.43 in 2 years. Medium term elasticity of demand for transport relative to fuel price is estimated to be 70%.[34] So reduction in traffic would be 25% X 70% = 19%. So emission saving is 19% of $128MtCO_2e$[35] = 24.3. Current fuel duty is £26.2Bn[36], so increase nets 26.2 X 24/50 X .85 = £10.7Bn
VAT on this increase on fuel duty	1	0.0	10.7 X .15. Emission effect included above. 15% VAT because of reduction in VAT later in the table.

[29] The 'whole year effect' is the CO_2 saving over a whole year once the measure has come fully into effect. The effect in the first year will usually be less - for example even if a house insulation programme was started on 1 April and was spread evenly through the year, the first year effect would be a bit more than half (not exactly half as there is less house heating in the summer months) the whole year effect.
[30] Million tonnes of carbon dioxide equivalent, as used in the Environmental Accounts 2007. Note that this is different from the other common measure of million tonnes of carbon.
[31] See http://www.petrolprices.com/ accessed on 21/11/08. Price for standard unleaded.
[32] PQ from John Spellar MP at http://www.publications.parliament.uk/pa/cm200506/cmhansrd/cm060913/text/60913w2371.htm.
[33] 50.35ppl is the 47.1 ppl in the Parliamentary answer plus the 1.25 ppl added in the 2006 pre-budget report and 2ppl added in 2007 Budget (B50, 2007 Pre-budget Report).
[34] Johansson and Schipper, 1997 Journal of Transport Economics and Policy 31(3) Sep says that short term elasticity is 30%, long term is 70%.
[35] UK Environmental Accounts 2007, p.25.
[36] From Table B8, Pre-budget Report 2007.

Increase Air Passenger Duty from £10 for EU flights and £40 elsewhere to £100 for all flights booked from the day of the budget announcement. Would not apply to flights internal to the UK where air travel is essential to complete the journey.	9.0	5.6	Assumes 13% reduction flights. If the tax takes £1.05Bn EU and £1.05Bn other now, then straight increase is from £2.1Bn[37] to £13.1Bn. But reduced volume means to about £11.4Bn, so net increase £9.3Bn. Emissions from air transport are about 43 $MtCO_2e$ at present[38] and 13% of that is 5.6 $MtCO_2e$. Increase is deliberately greater for short haul flights where rail is a realistic alternative.
Windfall tax on energy companies	2.0	0	The main precedent is the levy on utilities in 1997 which raised £5.2bn.[39] The Local Government Association have called for £500m from energy companies for each of 5 years.[40] FoE called for £5bn, but not clear over what period.[41] While the main concern has been over excess profits made from high oil prices, there have also been excess profits from emission Trading Permits. Overall we think £2bn is reasonable.
Reduce standard VAT rate from 17.5% to 15%	-11.0	0	VAT can be reduced to 15% within current EU rules. VAT is projected at £86Bn in 2008/9[42]. Assume £75Bn at full rate. Reduction is 2.5/17.5 X 75 = 10.7
Reduce VAT rate from standard rate to reduced rate (5%) for cooked food, entertainment and accommodation and also energy saving DiY building materials	-5.0	0	Possible under 6th VAT directive. Figure is £7Bn raised this way now reduced by 12.5/17.5 = 5.
Abolish vehicle excise duty (the road fund licence)	-7.0	0	Estimated outturn for 2008/9 is £6.1bn.[43] This assumes a slight increase in 2009/10 as higher rates take effect.
Overall effect of tax measures	**0.0**	**29.9**	

[37] 2008/9 projection from Table B8 Pre-budget Report 2007.
[38] Table 2.3 Environmental Accounts 2007.
[39] See http://www.guardian.co.uk/business/2008/mar/05/oil.utilities?gusrc=rss&feed=networkfront
[40] See http://www.lga.gov.uk/lga/core/page.do?pageId=970977
[41] See http://www.foe.co.uk/resource/press_releases/budget_government_must_ins_10032008.html
[42] Table B6, Pre-budget Report 2007.
[43] See http://www.hm-treasury.gov.uk/d/bud08_chapterc.pdf