GREEN PARTY

BUDGET 2007

Table of proposed measures

Measure	**Estimated net budget effect in 2007/8**	**Estimated CO_2 saving (whole year effect[1])**	**Calculations and sources** These calculations are illustrative and designed to provide overall orders of magnitude. We are not asserting that they are absolutely exact.
	£Bn	**$MtCO_2e$[2]**	
Carbon budget measures			
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 88p per litre now to £1.29 over two years, or by 21% to £1.07 in the first year.	8.5	19.2	Duty would have been 83.91p in 2006 had escalator continued.[3] Duty now is 48.35p.[4] So increase to restore the escalator would be 83.91-48.35 plus VAT at 15% = 41p. Note VAT at 15% because of reduction in standard VAT rate below. So 88ppl petrol becomes £1.29 in 2 years. Medium term elasticity of demand for transport relative to fuel price is estimated to be 70%.[5] So reduction in traffic would be 21% X 70% = 15%. So emission saving is 15% of $128MtCO_2e$[6] = 19.2. Current fuel duty is £25.2Bn[7], so increase nets 25.2 X 19/48 X .85 = £8.5Bn
VAT on this increase on fuel duty	1.3	0.0	8.5 X .15. Emission effect included above. 15% VAT because of reduction in VAT later in the table.

[1] 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.

[2] Million tonnes of carbon dioxide equivalent, as used in the Environmental Accounts 2006. Note that this is different from the other common measure of million tonnes of carbon.

[3] PQ from John Spellar MP at http://www.publications.parliament.uk/pa/cm200506/cmhansrd/cm060913/text/60913w2371.htm.

[4] 48.35ppl is the 47.1 ppl in the Parliamentary answer plus the 1.25 ppl added in the 2006 pre-budget report.

[5] Johansson and Schipper, 1997 Journal of Transport Economics and Policy 31(3) Sep says that short term elasticity is 30%, long term is 70%.

[6] UK Environment Accounts 2006, p.24.

[7] From Table B13, Pre-budget Report 2006.

Vehicle Excise Duty. Bands rising by £300 steps with Band A at £0 rising to Band G at £1800 as originally proposed by the Sustainable Development Commission.	8.0	not quantified	Financial calculation using data on cars licensed by emission band 2005[8]. Includes MORI research that £300 differentials would result in 72% moving down one band.
Increase subsidies Local Authorities can provide for bus services and give them regulatory powers to at least double the number of trips made by bus. Subsidy to reduce rail fares	-3.0	0.0	Emissions effect included in overall reduced road and air transport above.
No change to bio-fuel differentials except to remove duty altogether from waste vegetable oil used as bio-diesel.	negligible	0.4	CO_2 estimate relates to effect of existing bio-fuel differentials. [9]
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.	8.0	5.1	Assumes 13% reduction flights. If the tax takes £1Bn EU and £1Bn other now, then straight increase is from £2Bn to £12.5Bn. But reduced volume means to about £10Bn, so net increase £8Bn. Emissions from air transport are about 39 $MtCO_2e$ at present[10] and 13% of that is 5.1 $MtCO_2e$. Increase is deliberately greater for short haul flights where rail is a realistic alternative.
Emergency home insulation programme	-3.8	5.0	Would insulate 2.5m homes a year for £1500[11] each. Total domestic emissions are 162 $MtCO_2e$.[12] One eighth[13] of that is 20 $MtCO_2e$. About half is heating 10 $MtCO_2e$, and insulation might save half of that, 5 $MtCO_2e$. [14]

[8] Available at http://www.dft.gov.uk/pgr/statistics/datatablespublications/vehicles/licensing/coll_vehiclelicensingstatistics2/vehiclelicensingstatistics2005a#'Table 5&6'!A33

[9] Table 7.2 from 2006 Pre-budget report suggest 0.1MtC from current differentials, which equates to 0.4 $MtCO_2e$.

[10] Table 2.3 Environmental Accounts 2006.

Regulation of retail heating and lighting	0.0	2.0	No tax implication. Current wholesale and retail emissions are 16.0 $MtCO_2e$.[15] We assume about half of this is shops – probably a low estimate. The regulation will oblige retailers to use 25% less energy than the previous year, so leading to a saving of 25% of 8 = 2 $MtCO_2e$.
Double the climate change levy. The current rate is for example 0.43p per kWh for electricity, less than 10% of the domestic cost.	0.7	18.0	This doubles the tax take. It also doubles the emissions savings from the sectors affected.[16] If the increase proved too small to achieve this we would adjust the rate accordingly.
Incentives for renewables: - replace renewables obligation with long run feed in tariffs - expand the capital grants scheme for renewables - low-cost loan scheme promoted to individuals and businesses	-0.5	5.5	1 kg of CO_2 is produced for each kWh generated in a coal station.[17] 2.5 GW of extra renewable capacity 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 $MtCO_2e$
Total first year effect on emissions of the measures above		**55.2**	This is 7.5% of total emissions at 732 $MtCO_2e$.[18]
Social Equity measures			

[11] 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.
[12] Table 2.3, Environmental Accounts 2006.
[13] One eighth because 2.5m is one eighth of the 20m total stock.
[14] See Jean Lambert's report, Hothouses, p.2.
[15] Table 2.3, Environmental Accounts 2006.
[16] Current savings are on average 9 $MtCO_2e$ from the sectors covered in Table 2.3 of the 2006 Environmental Accounts.
[17] See http://www.stabilisation2005.com/61_Dr_Jon_Gibbins.pdf, pg2.
[18] Table 2.3 of the 2006 Environmental Accounts.

Increase in old age pension from £84.25 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 £114.05 for a single person and £174.05 for a couple.[19]	-7.0		There were 11.4m people receiving the basic state pension in 2004.[20] So the gross cost would be 11.4m X 15.75 X 52 = £9.3Bn. But we need to reduce a bit for reduced claims on Pension Credits and other benefits, plus income tax receipts.
End means testing for personal care for the elderly	-3.0		Introduced in Scotland in 2002 for £250m over two years.[21] Scotland has 5m people out of 60m in UK as a whole[22] so would expect the annual cost to be about 125 X 60/5 = £1.5Bn with a bit extra for inflation.
Extension of working tax credits to 18-24 year olds without children working or studying at least part time	-3.0		Assumes about half age group benefits.
Increase Child Benefit from £17.45 for the eldest child and £11.70 for each additional child by £5 a week for each child.	-3.4		Assumes paid in respect of 13m children (there are 11.6m children under 16[23] and you need to add a little for those under 18 in education). Then 13m X £5 X 52 = £3.4Bn.
Introduce a new higher rate of income tax at 60% for income above £100,000	12.3		In 2004 there were 405k taxpayers over £100k. The extra tax for each is 20% of £124k = £25,000. So from 405k of them we will get £25k X 405k = £10.1Bn. But that's for 2004. Need to uprate for increase in income tax from total of £124Bn in 2004 to projected £151Bn in 2007-8, so suggests pro rata would get £12.3Bn.

[19] Figures from http://www.direct.gov.uk/en/MoneyTaxAndBenefits/PensionsAndRetirement/StatePension/DG_10014671.

[20] See http://www.statistics.gov.uk/CCI/nugget.asp?ID=1276&Pos=3&ColRank=2&Rank=224

[21] See http://www.scottish.parliament.uk/vli/education/resources/learningResources/higherCsExec.htm

[22] Figures from http://www.statistics.gov.uk/cci/nugget.asp?id=6.

[23] http://www.statistics.gov.uk/StatBase/Expodata/Spreadsheets/D9543.xls

Abolish upper limit for National Insurance contributions	4.2		Upper Earnings limit was £645pw in 2006/7 or £33,540pa. Contracted out rate is 9.4% (surely most of these wealthy people will be contracted out), and 1% is charged anyway, so net charge would be 8.4% on extra earned income above £33,540. 8.4% of total income above £33,540 is almost £7Bn[24], so if 60% is earned this gives a yield of £4.2Bn.
Other environmental taxes			
Double the rate of Landfill Tax	0.7	Small reduction in methane	Current yield is £0.9Bn, this simply doubles it, and then subtracts a bit for reduced volume.
Raise by 60% expenditure on municipal waste management to increase re-cycling and reduce incineration	-2.0		Current spend is £3.5Bn. [25]
VAT and other changes			
Reduce standard VAT rate from 17.5% to 15%	-9.0		As far as VAT can be reduced within current EU rules. VAT now £80Bn. Assume £70Bn full rate, with £63Bn of that reduced to 15%. Reduction is 2.5/17.5 X 63 = 9.
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		Possible under 6th VAT directive. Figure is £7Bn raised this way now reduced by 12.5/17.5 = 5.
Provide additional support to local authorities to reduce rises in Council Tax. This is 10% of overall Council Tax.	-2.4		Council Tax produces £23.8Bn[26] !0% of this is £2.4Bn. Because Council Tax rises are in the pipeline anyway, this does not equate to a 10% reduction in Council Tax, but it should enable every Council to offer some reduction.
Provide support to local authorities for new national social housing programme	-1.4		
Changes to economic structure			

[24] Figures from Table T3.3, HM Revenue and Customs, Income distribution at http://www.hmrc.gov.uk/stats/income_distribution/pi_t03_1.htm#3.
[25] Table 3.4 Environmental Accounts 2006.
[26] Table B13, Pre-budget Report 2006.

Support for national network of cooperative development agencies providing advice, grants and loans	-0.1		
Support for national training and support initiative on Open Source software.	-0.1		
Taxation of private equity companies	not quantified		While the sums might be substantial, the issue is highly complex[27] and it has not been possible to provide any quantification.
Net financial balance in first year	**0.0**		
New environmental taxes			All for 2008
A nitrogen tax, levied at the point of fixation of atmospheric nitrogen, thus increasing the cost of artificial fertilisers.		Reduced artificial fertiliser use would reduce emissions of nitrous oxide from soils.	Would penalise non-organic farming, and help combat fertiliser pollution of water courses.
Resource tax on extraction of North Sea Oil			
A containers tax – 10p on each container that is not returnable (and returned) or compostable levied at the point of packing.			NR424 This is a generalised plastic bag tax on the Irish model.
Disposable nappy tax			
A waste heat tax, levied on power stations and proportional to the heat wasted in cooling towers etc.			Would encourage combined heat and power. French have a tax like this.

[27] See http://www.telegraph.co.uk/money/main.jhtml?xml=/money/2007/03/09/ccequity109.xml for example.