

Cutting back on carbon spending

**Ways to cut public spending and reduce support for
a high carbon economy**

February 2010

Summary

Whichever party wins the next election will face a major squeeze on public finances to reduce the national debt. The forthcoming election campaign will be dominated by the debate over how this issue should be handled over the next few years: where cuts should fall, when they should be started and how much we should be raising taxes. All political parties are also committed to transforming the UK economy into one that is no longer dependent on fossil fuels, but based on low carbon sources of energy and consuming far less energy to deliver the products and services that our society needs.

Sound public finances and the transition to a low carbon economy are both equally critical to the country's future prosperity. The government must carry out its review of public expenditure and tax policy on this basis. To get value for money from every penny of tax raised we should be cutting any form of public spending which promotes a high carbon economy. We should also be challenging tax anomalies where high carbon economic activities still receive tax breaks, the justification of which has become outdated during the transition to a low carbon economy.

This paper is a high level review of the potential options for reducing spending and tax anomalies in a way to accelerate the transition to a low carbon economy. If all of the measures reviewed below were undertaken, then spending could be reduced by nearly £7bn over four years, and tax receipts may increase by about £5bn, thus reducing the deficit by £12bn. Such measures would not solve the problem of the national debt, but should be a part of the package as they would enhance the value for money of public spending by the additional benefit of supporting another important national objective, delivering the low carbon transition. For example:

- A two year moratorium on road expansion would save £2.4bn over two years;
- The roads budget could be cut by a further £2.8bn once the appraisal methodology has been reformed;
- Reducing public sector energy and fuel consumption might save £1.5bn over four years, especially if the MoD can also cut some of the costs of the logistics of transporting and protecting its fuel supplies;
- Abolishing allowances against Petroleum Revenue Tax and Climate Change Levy could save £2.9bn;
- Abolishing zero-rating of VAT for aircraft and ships could save £2.2bn.

This report has not looked at the introduction of new green taxes, or increasing existing ones. We have simply been looking at current tax and spending arrangements. Green Alliance will be carrying out separate work on green fiscal reform later in the year.

1. Summary of public spending outlook

There is political consensus that the next government has to bring forward measures to reduce the overall national debt over the next decade. All major parties have committed to doing this through a variety of spending cuts and tax rises, with varying degrees of specificity. The Pre-Budget Report committed the government to halving the deficit in four years, and set out some of the measures that it would take to get there. Similarly the Conservative Party and Liberal Democrats have made some specific policy commitments to reduce the deficit. No party, however, have come up with the full package. More will have to be done.

The Institute for Fiscal Studies have estimated from HM Treasury figures the size of the gap between commitments on the deficit and actual measures announced. It estimates that around £25bn will have to be found by 2012-13.¹ Because both the government and opposition have effectively pledged to ring fence health and education, this will leave the bulk of the money to be found from either tax rises or the budgets of other big departments such as transport, defence, higher education or housing.

2. Capital spending

Roads

As discussed above, the Department for Transport (DfT) budget will come under considerable pressure as areas such as health and education will have some degree of protection. At the same time there is growing evidence that the assessment methodology for transport spending needs to be reformed. Green Alliance and Campaign for Better Transport have previously recommended changes to the government's transport appraisal system, the New Approach to Transport Appraisal (NATA). In particular we found that it does not reflect national policy objectives, fails to take proper account of now legally binding carbon reduction targets, and exaggerates the economic value of small time savings.²

Whilst road building has reduced in recent years, there is still a programme of expansion at the national and regional level. There is a case for a moratorium on new road building whilst the methodology is properly assessed. Expansion of the road network is a strong driver for traffic growth, which in turn drives up carbon emissions. The vehicle fleet may be getting less carbon intensive, but demand reduction will also play an important role if we are to get onto the emission trajectory set out in the Climate Change Act. The Committee on Climate Change's annual report found that the total car kilometres will have to have peaked in 2009, even with an ambitious take up of low carbon vehicles.³

Road building has a history of going over budget. The National Audit Office (NAO) has looked at recent national road building projects and concluded that costs had escalated by six per cent, even after adjustments to the estimating methodology which

¹ Pre-Budget Report 2009. Analysis from Institute for Fiscal Studies. <http://www.ifs.org.uk/projects/314>

² Rachel Cary et al, 2009, *The right route: improving transport decision making*. http://www.green-alliance.org.uk/grea_p.aspx?id=4619.

³ Committee on Climate Change, 2009, *Meeting carbon budgets: the need for step change*. <http://www.theccc.org.uk/reports/progress-reports>

build in an assumption of cost increases.⁴ But the underestimating of road construction costs can be even more marked if you look at the initial estimates for costs of proposals and follow them through to completion. The NAO found that the Department for Transport approved estimates for their road building programme, were 27 per cent higher than initial ones.⁵

The Campaign for Better Transport have tracked the many road proposals and they have found costs frequently doubling and trebling from their original estimates.⁶ For example the costs for the A1 widening scheme from Dishforth to Barton in the North East have ballooned from £225m, when the scheme was first proposed in 2002, to the current estimate of £732m, a 225 per cent increase.⁷ The prize for Britain's most expensive road scheme currently goes to the A14 widening between Ellington and Fen Ditton. Its estimated costs have leapt from £490m to nearly £1.3bn. It is very rare to find an example where the project has come under budget.

Road building projects are funded through two main routes. First, the national roads programme, which covers widening and hard shoulder running projects on motorways and trunk routes. The government has committed £6bn between now and 2015, although if you look at the high end of the estimates for the schemes named in the DfT document, the figure looks likely to exceed this.⁸ Then regional and local schemes are paid for through the transport block within the Regional Funding Allocation. So far regions have bid for road schemes that would cost a total of £4bn between now and 2015. Only £2bn has been requested for public transport. Once the regional bids come in, it is up to the DfT to approve or refuse the applications for funding.

Because not all of this spending is controlled nationally, it is hard to put a precise figure on what the government could save. Some of the £6bn in the national roads programme has already been committed, including the vastly over budget example from the A1 above. However the last government paper on the programme lists a number of schemes planned for start in 2010/11 and 2011/12, with an estimated cost range of £1.5bn to £2.4bn. When you add in schemes planned for future years, the full cost range goes from £3.3bn to £5.1bn by 2015.

In terms of the regional funding allocation, Campaign for Better Transport have heavily criticised the methods by which the regional bids were assembled, with a bias towards road schemes over public transport, and flawed assessment of CO₂ impacts of the schemes.⁹ Although the Department for Transport has reserved the right to approve or reject individual funding applications, there is a case for sending the regional packages back for reconsideration, and insisting on a more robust methodology.

If all the regional bids were accepted then the total planned spending on road expansion across the country by 2015 would be £10bn. If a two year moratorium were placed on national schemes then the short term saving could be up to £2.4bn by 2011/12. Then a reassessment of the criteria for transport infrastructure would most

⁴ National Audit Office 2007, *Department for Transport: estimating and monitoring the costs of building roads*, http://www.nao.org.uk/publications/0607/dft_estimating_and_monitoring.aspx

⁵ *ibid*

⁶ http://www.bettertransport.org.uk/campaigns/climate_change/roads/pricetag

⁷ Personal communication. Campaign for Better Transport

⁸ Department for Transport, 2009, *Britain's transport infrastructure: motorways and major trunk roads*. <http://www.dft.gov.uk/pgr/roads/network/policy/motorways/motorways.pdf>

⁹ Campaign for Better Transport. March 2009, *Regional Funding Advice: driving transport down a carbon cul-de-sac*, <http://www.bettertransport.org.uk/system/files/09.03.31.regional-funding-briefing.pdf>

likely reduce the number of road schemes being proposed. Given the very tight public finances, one could argue that further savings should be made. According to the Campaign for Better Transport, if the eight most expensive road schemes were cancelled then the total saving would be £5.2bn.¹⁰

Airports

As well as road building, other forms of carbon intensive transport infrastructure have received government support over the years. Despite being completely in the private sector, regional airports, have been given a total of £80m in grant support, usually by RDAs in the last 10 years.¹¹ Other attempts at support for regional airports have been blocked by EU State Aid rules. Whilst there are no plans for further grants, any new government should make it clear that this sort of support cannot be justified in an age of austerity and transition to a low carbon economy.

Other support for business

The subsidies and support that government gives business is not entirely consistent with a transition to a low carbon economy, but the future plans for support are not set out in detail. Reviewing areas that have been given support in the past, or that have recently been awarded support, as part of the wider fiscal stimulus package, reveal some that perhaps should not be awarded in the future. Between 2004 and 2008, £45million was spent on Coal Investment Aid, but this programme has now expired.¹² In December 2009, BIS announced investment in a number of manufacturing facilities, including £45 million for Rolls Royce facilities in aerospace and civil nuclear. The same press release announce a further £45 million for Rolls Royce to develop low carbon aircraft engine technology, so one can only assume the first £45 million will not help the industry move towards low carbon.¹³ BIS has also unveiled an Advanced Manufacturing Strategy, which will allocate £61 million for developments of composite materials and other manufacturing. One of the uses of these materials is wind turbine blades, but the Business Secretary, Lord Mandelson, chose to launch the strategy at a manufacturer of racing cars. The materials are also used in aircraft manufacture, so the degree to which this support will promote high carbon, rather than low carbon, technology is unclear.

Support for the fossil fuel industry also exists in research and development budgets, the activities of UK Trade & Investment, and most significantly in the Export Credit Guarantee Department. According to analysis of Profundo Economic Research, for Friends of the Earth Europe, the UK had offered several hundred millions of pounds in export guaranteed to the oil and gas sector.¹⁴

However, as with the airport subsidies, much of the explicit support for carbon emitting activities above has either already been spent, or has been committed. The best a government could do after the election would be to pledge it will not offer such support again. If it did so, there is an implied reduction in the BIS annual capital budget

¹⁰ Campaign for Better Transport. 2010, *Improving everyday transport, a manifesto for change*.

¹¹ Guardian Datablog. July 2009, *The UK in airport subsidies*.

¹² Profundo Economic Research for Friends of the Earth Europe, 2009, *Public money for fossil fuels in the EU and in three EU member states*.

¹³ BIS press release 28 July 2009, *Advanced Manufacturing: Building Britain's Future*.

¹⁴ Profundo Economic Research for Friends of the Earth Europe, 2009, *Public money for fossil fuels in the EU and in three EU member states*.

of up to £50 million. Another option, of course, would be to reallocate this support to low carbon business.

3. Revenue spending

The other category of government spending covers the running costs of the public sector such as wages, utilities, procurement etc. Whereas if you cut a piece of capital expenditure that saving is only incurred in a single year, cuts in revenue spending will save money year on year, and so accumulate over time. Below we look at possibilities in reducing the energy and fuel costs in the public sector. Later we address some of the tax allowances and exemptions that could be changed, which would have the effect of increasing annual income to government.

Reduction in energy and transport costs across public sector

Both government and opposition have made commitments to reduce the energy consumption across government in the next few years. Evidence from the Sustainable Development Commission and the National Audit Office has followed what has happened so far and demonstrates that more can be done.

The total government spend on energy is £3.2bn. If this were reduced by 10% as both political parties have now pledged, then the annual savings would be £300m. Some departments could probably save more than this. If the 10% targets were made for the first two years of the parliament, then more ambitious targets could be established for later years. Savings on overall government spending would accumulate.

The MoD is by far the largest energy consumer in the government estate. In 2007, £788m was spent on fuel by the MoD (this excludes NATO operations like Afghanistan where NATO itself provides the fuel).¹⁵ Research reported by the Royal United Services Institute (RUSI) has shown that as well as direct savings of fuel use that could be made by the military, there are considerable associated costs with the logistics of delivering the fuel to the field. Fuel has to be transported to bases by truck, then those fuel supply lines need further military resources to protect them from attack. The US Department for Defence estimates that 3.3% of its total budget is spent on raw fuel costs, but when the costs of infrastructure and logistics are included, this increase to 10-15% of the entire US defence budget. According to RUSI, 7 litres of fuel are used to get 1litre to the front line, then there is the human cost. 139 personnel and 89 tankers were lost while delivering fuel in 2006.¹⁶

The NHS spends about £400m on energy each year. It has just launched a major initiative to improve its performance on sustainability including reducing energy consumption and implementing sustainable travel plans. For the NHS, and other public sector organisations, there will soon be another incentive to reduce carbon emissions. They will have to be part of the Carbon Reduction Commitment, which will eventually develop into an emissions trading scheme. So poor public sector performance on emissions reduction will mean higher costs to public sector, as it will have to buy permits from other participants in the scheme.

¹⁵ Royal United Services Institute, 2009, *Alternative Energy and Sustainability in the Military*.

¹⁶ *ibid*

The most recent review of sustainability in the government estate has just been published by the Office for Government Commerce, in conjunction with the Sustainable Development Commission. Most departments are on course for the existing targets for carbon reduction. However, these targets are mostly in terms of energy efficiency rather than total reduction in emissions. The next phase of targets should be more ambitious and deliver more radical savings in energy bills.

Tax allowances for carbon economy

As well as public spending, the government may wish to examine the rationale for various tax allowances granted to parts of the economy that are particularly carbon intensive.

The oil and gas industry has a complex tax regime surrounding it, with petroleum revenue tax, a supplementary charge on corporation tax and a vast and complex arrangement of allowances and reliefs attached to these tax arrangements. A common feature of budget statements are tweaks to the oil and gas tax regime explicitly designed to maximise investment in exploration of oil and gas in the North Sea. At a time when we are trying to make a major transition to a low carbon economy, the policy goal of trying to maximise North Sea output of fossil fuels could be regarded as perverse. A number of fields are given an allowance of profits to be made before tax is levied, the oil allowance. According to the HM Treasury, the estimated cost to the taxpayer of the oil allowance, against petroleum revenue tax is set to be £550 million in 2009/10.¹⁷ In previous years, when the oil price was high, this was £700million.¹⁸ In the 2009 Pre-Budget Report, the Chancellor introduced another allowance for the costs of new oil or gas fields. The Field Allowance would grant a different set of fields a fixed amount of tax free profits each year, up to an annual limit. It was introduced explicitly to encourage more exploration in areas of the North Sea currently too expensive to drill into, because of geological issues or sea depth. As this is a new measure, there is no official estimate of the cost to the taxpayer in the budget documentation, but again the rationale for further taxpayer support for fossil fuel production should be examined closely.

VAT zero-rating

The list of zero rated goods and services for VAT is a familiar one of 'essentials' like food, children's clothing, books, prescription drugs and water services. But alongside these also lies all passenger transport (which includes bus, train and aviation) and, more curiously, 'ships and aircraft above a certain size'. The latter of these costs the taxpayer, according to the treasury's own figures, £600 million in 2009/10. There doesn't seem to be a good rationale for zero rating the sale of large ships and aircraft when other similar goods are subject to full VAT rates. Another consequence of zero rating for air passenger services, is that the providers of those services, such as British Airways, Easyjet etc, can claim back all VAT for the supplies and services they purchase, but then do not have to charge VAT for the service that they provide. So they exist in a VAT tax loophole, which is hard to quantify, but could be a significant loss to the taxpayer. The Aviation Environment Federation have estimated the cost to be up to £4bn, and the Environment Audit Committee has challenged the Treasury to investigate removing the zero-rating.¹⁹ Changing this rating, however, may require agreement across the EU, so we have not included this as an immediate change that could be made by the UK government.

¹⁷ HM Treasury. December 2009, *Tax ready reckoner and tax reliefs*.

¹⁸ HM Treasury. December 2008, *Tax ready reckoner and tax reliefs*.

¹⁹ Environment Audit Committee, Third Report. Session 2007-8

Climate Change Levy reduced rates

There are other areas where exemptions have been granted, such as the reduction of Climate Change Levy for those companies that sign a voluntary climate change agreement. Government has recently reduced this exemption, but abolishing it completely would yield the Exchequer another £250 million a year. The current raft of Climate Change Agreements come to an end in 2012. The government could abolish the reduced rate at that time.

4. Conclusions

During the next parliament, the government will be faced with tough choices on public spending. At the same time we must accelerate the transition to a low carbon economy. All of the measures outlined above will be unpopular with certain vested interests, some groups of the public and elements of the media. We are not recommending these decisions be taken without more detailed analysis on the consequences for other policy objectives. But we have set them out to show there are options available that can help reduce the national debt and support a low carbon transition. Neither outcome can be regarded as optional by the government.

Table of possible savings

	2010/11 £m savings	2011/12 £m savings	2012/13 £m savings	2013/14 £m savings	Accumulated savings over four years
Two year moratorium on road building	1,400	1,000			2,400
Reduction in national road building & hard shoulder running projects			1,400	1,400	2,800
BIS high carbon business support	50	50	50	50	200
Reduced energy bills	150	300	400	500	1,350
MoD fully burdened energy costs			50	100	150
Abolition of oil allowance	600	600	600	600	2,400
Full VAT rate on ships & aircraft	550	550	550	550	2,200
Abolish CCL reduced rates			250	250	500
Total					12,000

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Acknowledgments

For the research and publishing of this paper we are grateful for the support of Greenpeace, RSPB and WWF.

About Green Alliance

Green Alliance is an independent charity working to make environmental solutions a priority in British politics. We work with representatives from the three main political parties, government, business and the NGO sector to encourage new ideas, facilitate dialogue and develop constructive solutions to environmental challenges.