Environmental Policy Proposals

2010 Election Briefing Note No. 14 (IFS BN101)

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Summary

- All three main UK parties have broadly signed up to the very ambitious carbon reduction targets set out in the Climate Change Act 2008. Achieving them would require any government to implement policies leading to large reductions in emissions. But there are few significant new policies, and certainly no radical departures from current plans, being proposed by any of the three main parties in the current election campaign.

- For example, it is noteworthy that none of the main parties plans to tax household energy consumption, which would continue to be subsidised through the reduced rate of VAT payable on energy. Nor do they have any serious plans to introduce consistent carbon pricing across sectors.

- The Labour Party announced no significant new environmental proposals in its manifesto, although it has already set out a number of significant policy interventions in legislation.

- Among the most important changes to environmental policy that have recently been introduced are the Carbon Reduction Commitment (a cap and trade scheme for firms not covered by the European Emissions Trading System), a fuel duty escalator, the introduction of banding for renewable obligation certificates, and the introduction of the Clean Energy Cash Back scheme (‘feed-in’ tariff). The three main parties seem committed to keeping these.

- The Conservatives have proposed a reform to the Climate Change Levy which would, in the context of the European Emissions Trading System, have the effect of putting a floor price on carbon – but still only where the generation is for business use. This has the advantage of providing greater certainty over the carbon price and giving firms an incentive to use less carbon intensive fossil fuels. But it could lead to more uncertainty in government revenue.

- The Conservatives would also consult on a ‘fair fuel stabiliser’ that would stabilise after tax fuel prices. This would help stabilise the prices paid by consumers, but is likely to be difficult to implement and could lead to unstable revenues. Environmental benefits are unlikely.

- The Conservatives have promised to increase the share of environmental taxes in total tax revenues, but have not explained how they will do so. The current government has overseen a reduction in environmental tax revenues as a proportion of the total. Reversing this trend would likely require large increases in fuel duties.

- The Liberal Democrats would replace air passenger duty (APD) with a per plane duty. This would target the external costs of flying from greenhouse gas emissions more effectively.

¹ This series of Election Briefing Notes has been funded by the Nuffield Foundation, grant OPD/36607. The Nuffield Foundation is an endowed charitable trust that aims to improve social well-being in the widest sense. It funds research and innovation in education and social policy and also works to build capacity in education, science and social science research. More information is available at http://www.nuffieldfoundation.org/. Any views expressed are those of the authors and not necessarily those of the Foundation. The authors are grateful to Stuart Adam, Robert Chote, Carl Emmerson, Andrew Leceister and Luke Sibieta for helpful discussions and comments on earlier drafts. Any errors and omissions are the responsibility of the authors.
1. Introduction

Previously, we published a briefing note summarising current government policy and their record on the environment since 1997. In this election briefing note, we look at the environment policy proposals put forward by the three main UK political parties in their manifestos, as well as the current government’s plans for the future.

Future environmental and energy policy, whoever forms the next government, will be largely driven by legally binding targets the current government has signed up to. These include the European Renewable Energy Directive, under which the UK has pledged to increase the proportion of energy generated from renewable sources to 15% by 2020. In order to achieve this, the government has set itself a goal as part of its ‘Renewable Energy Strategy’ to generate 30% of electricity from renewable sources by this date. The European Landfill Directive commits the government to reduce the amount of biodegradable municipal waste going to landfill to 75% of 1995 levels by 2010, 50% by 2013, and 35% by 2020. The government’s targets under the Climate Change Act also include a legally binding commitment to Green House Gas (GHG) reductions of 22% relative to 1990 levels in 2008–12, 28% in 2013–2017 and 34% in 2018–2022.

In order to reach these targets, the current Labour government has put a number of policies in place, which are described in our election briefing note summarising policy since 1997. They include:

- energy efficiency programmes such as Warm Front, the Carbon Emissions Reduction Target, and the Community Energy Savings Programme;
- the Renewables Obligation which requires generators to source a certain proportion of energy they supply from renewable sources;
- the Landfill Tax and Landfill Allowance Trading Scheme;
- the Climate Change Levy, a tax on electricity generated from non-renewable sources.

Here we look at some of the policies that have been announced but are yet be implemented by the current Labour government as well as the proposals put forward by the two main opposition parties. We will look at new policies in the areas of energy (section 2), transport (section 3) and taxation (section 4), and end with a comment on the common manifesto boast of creating ‘green jobs’ (section 5).

The Labour Party’s 2010 general election manifesto contained no new environmental proposals (with the exception of a new Green Investment Bank), which is why their manifesto is not mentioned here. That is not to say that they are not committed to significant policy intervention, rather, that those policies have already been set out in recent legislation.

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3 [http://www.decc.gov.uk/Media/view/file.ashx?FilePath=What%20we%20do\UK%20energy%20supply\Energy%20mix\Renewable%20energy\Renewable%20Energy%20Strategy\1_20090717120647_e_%E0%80%80%E2%82%AC%E2%80%93TheUKRenewableEnergyStrategy2009.pdf&filetype=4]
4 See [http://www.theccc.org.uk/carbon-budgets].
2. Energy

Policies to increase renewables

The current government has set out a range of policies to meet its renewables targets. It appears that the opposition parties are in broad agreement with these policies. They are set out in the 2009 Renewable Energy Strategy.

The most important is the Renewables Obligation, a major policy innovation in the environmental arena, first introduced in 2002. This requires electricity suppliers to purchase a certain proportion of their electricity from renewable sources. Prior to April 1st this year, firms were issued with one Renewable Obligation Certificate (ROC) for every MWh of renewable energy they supplied. At the end of the year, they were expected to show that they had enough ROCs to cover the quota they had been assigned. If they fell short they would have to purchase ‘buyouts’ at a fixed price to make up the difference.

From April 1st of this year, this has been changed to a system of banded ROCs. Now the number of ROCs per MWh or renewable energy will vary according to how the energy was generated. From now on, for instance, one MWh of offshore wind gives two ROCs whereas a MWh generated from landfill gas gives only 0.25. The change is supposed to be ‘grandfathered’ so suppliers will continue to receive the same number of ROCs from existing capacity as they did before the bands were introduced. The bands will only apply to new capacity.

All of the three main parties seem to support the banding of ROCs. There is some controversy however, since it is seen as a move away from a ‘market based’ system under which suppliers are free to choose renewables which have the lowest marginal cost of generation, to one where they are directed towards certain technologies by the government. This will increase the costs of the scheme for firms and, if they pass these costs on, for consumers as well. One rationale for this policy is to avoid the UK becoming too dependent on a particular type of renewable energy, or to promote investments in industries which may benefit from scale economies in the future.

A second policy is the Clean Energy Cash Back scheme. This requires energy suppliers to pay higher ‘feed-in’ tariffs for the renewable energy supplied by small generators. Currently the scheme only covers electricity generation, but in 2011 the government plans to extend it to cover renewable heat sources as well with a “Renewable Heat Incentive” in place of a feed-in tariff. The latter policy is expected to have the most significant impact on CO2 emissions.5

The effect of both these policies is of course to increase the cost of the electricity to the final consumer. At present electricity bills for a typical household are estimated to be £12 per year higher as a result of the RO.6 Policy going forward, as set out in the UK Renewable Energy Strategy, will increase the cost and impact of these policies to the extent that average household electricity bills are predicted, on a central scenario, to rise by £77 a year by 2020.7 Perhaps unsurprisingly this is one impact of current policy that none of the main parties is drawing attention to.

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Changes to the Climate Change Levy

The Conservatives have proposed reforming the Climate Change Levy (CCL) so that it would act as a carbon tax and so that it would effectively give a floor price to carbon emissions. The CCL is at present simply a tax on energy usage by business. It is levied at the same rate for electricity generated by different fossil fuels, and indeed from nuclear, and as such is not a tax on the carbon content of energy, though there is no levy for electricity generated from renewable sources.

Under Conservative proposals the tax would no longer be levied on energy users but would instead be levied “upstream” on power generators. This change would mean that the tax can be set at different rates according to the carbon content of energy supplied. Under the current system, the tax is set at the same rate for all non-renewable sources of electricity.

Generators would then be able to reduce their liability for the CCL by the value of ETS permits they purchase (presumably firms which are issued permits would still be able to use the value of the permits they had been allocated to offset their liability for the new CCL). If the total value of ETS permits were greater than the generators’ liability for the CCL, then no net charge would be payable.

If the ETS price were above the new CCL rate per tonne of CO₂, then the cost of carbon emissions for the firm would simply be the ETS price. If the ETS price were below the rate of the new CCL per tonne of CO₂, then the cost per tonne would be ETS price + (CCL price – ETS price) = CCL price, no matter how far it fell. Hence, the new system puts a floor on the price of carbon.

The exemption from the CCL for domestic consumers and small business would continue. Firms would also still be able to negotiate Climate Change Agreements to reduce their liability in exchange for committing to achieve pre-agreed emissions reductions. It’s not obvious how this would be implemented however if the tax is to be levied upstream. The change is supposed to be revenue neutral, although the Conservatives have stated that they eventually intend the proceeds for the reformed CCL to be rebated to consumers of energy.

There would be several advantages to this approach.

First, it would mean that the CCL was better tailored to reflect the carbon dioxide emissions of different fuel sources. At present, the CCL does not give firms an incentive to discriminate between different fossil fuels on the basis of their carbon contents. This would help redress the differences in implicit carbon taxes identified in our briefing note on environmental policy since 1997. It would therefore promote gas and nuclear power over coal.

Second, by setting a floor on the price of carbon it serves to give firms greater certainty over the returns to investments in emissions reductions. Other things equal, setting a floor price on carbon will make such investments more attractive than would otherwise be the case, although under the ETS any additional carbon savings made in the UK would, at least in the short term, result in higher emissions elsewhere.

One downside of the change would be that the government would transfer some of the risk associated with the volatility of carbon prices from firms to itself. If the ETS price rises unexpectedly, then the government would receive lower than expected revenues. The maintenance of an exemption for small business and, in particular, households, also means this remains some way from a comprehensive carbon tax proposal. This is ‘inefficient’ from an economic point of view.

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since households may be able to make emissions reductions at a lower marginal cost than businesses. Equity considerations may explain why none of the parties aim to correct this inconsistency, however, especially given complications in compensating the households for higher energy prices through the tax and benefit system.  

Carbon Reduction Commitment

Emissions in certain industries in the EU are covered by the Emissions Trading System. Under this participating firms are required to provide allowances for every tonne of carbon they emit. Member states allocate or sell these allowances to firms who then trade them amongst themselves and firms in other EU countries. The total cap for each country is then reduced each year.

In order to meet its emissions targets, the UK will also require emissions cuts to be made in industries not covered by the ETS (the 'non-traded sector'). To this end the Labour government has introduced the Carbon Reduction Commitment (CRC) which will come into effect in April 2011 (the current financial year is a 'reporting year' that firms will use to establish the baselines against which future progress will be judged). The scheme will put a price on carbon by first selling carbon allowances at a fixed price of £12 per tonne, and then from April 2013 onwards, auctioning off a fixed number of allowances with fewer available each year.

The sale of allowances takes place at the beginning of each financial year, but firms are only required to submit allowances for every tonne they emit at the end of the year. Firms that find they did not purchase enough allowances to cover all their emissions can purchase allowances from other firms, who have more than they need, in a secondary market. A 'safety valve' through which firms can make purchases of allowances in the ETS market exists if prices in the secondary market turn out to be too high.

Revenues from the sale of permits will be recycled at the end of the year to firms participating in the scheme. Each organisation will be repaid in proportion to their historic emissions (total CRC emissions in the first year of the scheme (2010–11) as a proportion of the total) with a bonus or penalty depending on the extent to which they have reduced their emissions compared with other organisations within the scheme. In an attempt to avoid firms inflating their emissions in the reporting year so as to make later emissions targets easier to achieve, these bonuses will also depend on what actions firms undertook to limit emissions before the CRC came into effect. In general economists approve of cap and trade schemes such as this, since they leave decisions over how to cut emissions to firms themselves, which are considered best placed to know the most cost effective ways to cut their own emissions.

The CRC however looks like a complex scheme which would require a good deal of information, management and monitoring by firms whose primary business is not energy – suggesting that it may be costly to administer. Also, not all of firms’ emissions reductions will actually lead to a reduction in the UK’s total emissions. This is because electricity usage is, among other things, used to calculate firms’ emissions, and electricity suppliers are already covered under the ETS. As electricity usage falls, these suppliers no longer need to purchase as many ETS allowances, meaning that more are available to other suppliers who wish to increase emissions – offsetting any reductions from firms in the CRC.

The ‘recycling’ of revenues from the sale of allowances is an important part of the policy. It provides the right incentives at the margin and ensures that participating firms are, on average, left no worse off. But the revenues could have been used to cut other distortionary taxes instead. This could leave

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the government with the same revenues (zero) as under the system currently envisaged, compensate firms for the costs of introducing the scheme (presumably the motive for ‘recycling’ in the first place), while giving firms a greater incentive to expand.

Neither opposition party has mentioned plans to change the CRC. The Liberal Democrats say they would ‘strengthen’ it by imposing tougher targets, but this seems contingent on successfully pressing the EU to move towards a tougher target as a whole.

3. Transport

Changes to Fuel Duty

In its 2009 Budget government reintroduced a fuel duty escalator with increases in fuel duty of 1p in real terms scheduled each year until 2013–14, and this was extended until 2014–15 in the 2010 Budget.

These increases will not be enough to maintain the share of revenues from fuel duty in total revenues according to current budget projections. It will instead fall slightly from 5.2% this year to 4.9% in 2014–15.\(^\text{10}\)

The two main opposition parties have not made any commitment with regard to this escalator policy.

The Conservatives have also proposed a change to fuel duty which they call the “fair fuel stabiliser”. At the time of writing the Conservatives are still consulting on this policy.

Under the “fair fuel stabiliser”, fuel duty would adjust to offset partially changes in underlying fuel prices. The aim would be to stabilise pump prices for consumers. If oil prices were high, then fuel duty would fall, and if oil prices were low then fuel duty would rise.

The Conservatives have claimed that there will be a number of advantages from this policy in the form of:

1) greater certainty for family finances;
2) greater certainty over the price of carbon.\(^\text{11}\)
3) greater stability of public finance revenues;

The first of these claims may well be true, but the others are more suspect.

With regard to the second point, while the fair fuel stabiliser would provide greater certainty over the cost advantages of more fuel efficient vehicles, the policy would actually discourage households from purchasing them, since they would have less of an incentive to insure themselves against future increases in fuel prices.

The argument for the third point is that the government benefits from increase revenues from North Sea Oil when oil prices are high and loses out when oil prices are low. The fair fuel stabiliser is supposed to cushion against these shocks. This is possible but by no means obvious since, while

\(^\text{10}\) Authors’ own calculations from Table 2.9 of HM Treasury (2010), The economy and public finances: supplementary material published alongside Budget 2010 (http://www.hm-treasury.gov.uk/d/budget2010_supplementary_materialpdf.pdf).

\(^\text{11}\) See http://www.conservatives.com/~media/Files/Downloadable%20Files/A%20Fair%20Fuel%20Stabiliser%20A%20Consultation%20On%20the%20Future%20of%20Fuel%20Taxation.pdf?dl=true
the government benefits from high oil prices in the form of higher tax receipts from oil companies it also suffers from a general depression of economic activity.\textsuperscript{12}

Economists have modelled the effect of oil prices on tax revenues in the past, taking account of knock on effects to the rest of the economy. It has been estimated that an increase in oil prices of $10 would initially depress revenue but eventually increase it by 0.2\% of GDP (in the fifth year following the price shock).\textsuperscript{13} This suggests there is scope for such a policy to stabilise revenue, but since revenues increase only with a lag, its success would depend crucially on being able to differentiate between permanent and temporary price changes. Cutting taxes in the face of short term changes in oil prices could actually increase the volatility of tax revenues.

Figure 3.1 shows that it would be difficult to distinguish between the two. Prices seemed to reach a permanently higher level at the end of 2005, but the shock in 2008 appears to have been transitory – although neither was by any means obvious at the time.

**Figure 3.1. Changes in Sterling Oil and Pre-Tax Petrol Prices**

![Graph of Oil price index and Petrol pre-tax index](image)

The difficulty in distinguishing permanent and temporary price changes also means there are likely to be practical difficulties in introducing such a policy. If shocks to oil prices are just transitory deviations from a steady trend then a change to a fair fuel stabiliser would be simple and revenue neutral (so long as the trend was correctly identified and the stabiliser was not defined such that a long run trend increase in prices, for example, would result in continually reducing duties). If on the other hand, there were occasional, permanent shifts in oil prices, then this would make the revenues from such a policy far more uncertain, and it is far from clear at present how the stabiliser would respond to these sorts of price changes.

\textsuperscript{12} See Page 24 of HM Treasury, 2006 Pre-Budget Report for the Treasury's view on the impact of oil prices on the public finances.

The Fair Fuel Stabiliser would, however, have the advantage of tackling the costs of congestion which are estimated to account for around 3/4 of the total external costs of motoring. This is because the stabiliser would work to offset the increase in congestion which would ordinarily occur when oil prices were low, and would cut fuel duty when oil prices were high and the costs from congestion were lower. In other words, it would reflect the fact that the negative externality from motoring is lower when the oil price is high. That said, it is a relatively poor instrument to tackle this problem especially when compared with a national road pricing scheme (see below). Congestion is, after all, affected by many factors apart from oil prices.

**Road Pricing**

The Liberal Democrats have said that if elected they would begin undertaking preparations for a system of national road pricing (to be introduced in a second parliament). The reform would be revenue neutral with revenues from the system being used to abolish vehicle excise duty (VED) and reducing fuel duty. The Labour Party has explicitly stated that it would not introduce a road pricing system in the next parliament, although since it would likely take a number of years to introduce such a system, no government would be likely to do this anyway.

Such a reform would mean that taxes on road use could be better tailored than fuel duty to reflect the external costs of congestion that motorists impose on other road users. For instance it could be adjusted according to the time of day and be set at a higher rate on busier roads. Since congestion is estimated to be the most important of the various external costs of motoring, this is a direction of reform to be welcomed, though the difficulty and costs of implementation should not be underestimated.

The government looked into road pricing itself with a feasibility study, published in 2004, that estimated a welfare gain valued at up to £12 billion from time savings as a result of such a scheme and at one point appeared to be making preliminary preparations for the more widespread introduction of road pricing. The government decided not to implement this policy after it became clear that it was highly unpopular however.

Before road pricing is introduced, the Liberal Democrats have proposed a “fuel discount” for road users in remote rural areas. Seeing as congestion in rural areas tends to be low, there are good economic reasons for such a discount. The Liberal Democrats have stated that this change would be revenue neutral – funded by a fuel duty increase for those living in other regions. There is of course likely to be a problem with drivers from neighbouring regions refuelling in these areas to take advantage of the discount. But it appears the discount would only apply to a few, large, contiguous, rural regions rather than rural areas generally, which means this would be less of an issue.

**Aviation duty**

The Liberal Democrats have suggested replacing air passenger duty with a per plane aviation duty. This would be charged on both passenger and freight planes and on flights to all destinations. The per plane tax would take into account emissions of nitrous oxide on take-off and landing (apparently well correlated with the per mile emissions of the plane), maximum take-off weight

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16 Private correspondence with the authors.
(MTOW) and distance travelled. The Conservatives have also proposed a reform of air passenger duty “to encourage a switch to fuller and cleaner planes”\(^\text{17}\), but so far their proposal remains unspecific.

Under Liberal Democrat plans, there would be a supplementary tax on domestic flights in the UK in order to encourage rail travel. The cost per mile of the tax would be higher for domestic flights travelling less than 300 miles (excluding “lifeline flights”, which we interpret to be flights to Scottish Islands, and flights between Northern Ireland and the rest of the UK). They aim for these two taxes to raise £3.3 billion if implemented in 2010–11. The tax would be adjusted to meet this revenue target.

To avoid aeroplanes touching down in a country close by and then taking off to a further, final destination they would charge the duty to the final destination.

The government has already considered and rejected a per-plane tax levied according to distance travelled and MTOW.\(^\text{18}\) The concern was that using MTOW would not provide incentives for airlines to improve their environmental efficiency. There were also concerns that such a tax could threaten Britain’s status as a transit hub for international flights, if other airlines tried to avoid the tax by switching to alternative hubs on the continent.

Such a tax, if implemented, would be a better targeted tax than air passenger duty is at present. The current duty is a per-passenger tax and so is not charged on freight flights, which also contribute to greenhouse gas emissions. At the moment it only varies by distance travelled through four broadly defined bands. It also provides no incentives for airlines to reduce carbon emissions per flight, or to reduce the number of total flights by carrying more passengers per plane.\(^\text{19}\)

### 4. Environmental Tax Revenues

The Conservatives have pledged to “increase the proportion of tax revenues accounted for by environmental taxes, ensuring that any additional revenues from new green taxes that are principally designed as an environmental measure to change behaviour are used to reduce the burden of taxation elsewhere.” The Labour Party proclaimed a similar objective when it was elected in 1997. Since then environmental tax revenues have actually fallen both as a proportion of total revenue (from 9.5% in 1997 to 7.9% in 2009) and as a proportion of national income (from 3.3% to 2.8% over the same period\(^\text{20}\)). The Conservatives are also likely to have difficulty meeting this pledge, especially since in an economic recovery, revenues from taxes such as income and corporation tax are likely to grow faster than taxes on fuel and energy – naturally depressing the share of total revenue from environmental taxes as a matter of arithmetic. The Conservatives have not proposed any net increases in green taxes that would counteract this.

\(^{17}\) [http://www.conservatives.com/Policy/Where_we_stand/Transport.aspx](http://www.conservatives.com/Policy/Where_we_stand/Transport.aspx)


5. “Green Jobs”

All the parties have boasted about the number of “green jobs” their policies would create. The Liberal Democrats have pledged to spend money on a “green stimulus” which would include, among other things, refitting old shipyards to produce windmills, and it is claimed this would create 100,000 jobs. Labour has similarly pledged to create 400,000 jobs through its environmental policies, while the Conservatives’ Green Deal is supposed to create “thousands” of new jobs.

While reducing unemployment is a worthy aim of governments, shifting workers from existing jobs to jobs which reduce emissions is, in itself, a cost to the economy rather than a benefit. Labour, and particularly skilled labour, is a scarce resource, and so the more workers that need to be diverted from economic activities to, say, build renewable capacity, the greater the loss of output, and the more expensive the policy. Incidentally, this means that programmes which create skilled ‘green jobs’ are even worse than those which create ordinary positions, although this is often advertised as if it were an added benefit. Of course, if ‘green jobs’ were simply new jobs for those who are currently unemployed then this argument would not apply.

This should be borne in mind when considering whether or not a given policy is worthwhile.