

**Committee on Climate Change - Workplan Consultation**

Response from Friends of the Earth, June 2008.

We welcome the opportunity to respond to this consultation. We believe the Committee is undertaking a very thorough review of the issues and complexities in setting carbon budgets for the UK, and agree with the majority of the Committee's proposed approach. We have comments in five broad areas:

1. Targets versus budgets, and implications for trajectories
2. Difficulties in measuring relative cost-effectiveness
3. Building-in slack
4. Buy-in of credits from abroad
5. International aviation and shipping

**1 Targets versus budgets, and implications for trajectories**

Section 1 sets out a methodology for setting a "2050 target", based on meeting a certain stabilization scenario. Meeting this scenario is path as well as target dependent. The critical factor is cumulative emissions to 2050, not just the end point. However, *section 1 ii) UK's 2050 target* takes the global analysis and looks at burden sharing methodologies to define a UK target only. The trajectory to meeting this target is then discussed in later sections, eg *2 viii) the trajectory to 2020: the first two budgets*.

However, the UK trajectory is needed as well as the end target to determine whether the burden sharing methodologies deemed appropriate in section 1 ii) are adequate for the UK to meet its share of the global cumulative emissions to stay within the stabilization scenario.

We suggest that section 1ii) should set a UK budget to 2050, rather than a UK target %. It can then set a range of trajectories at that point, with a most likely trajectory. The subsequent analysis on technology visions and costs may indicate that a different trajectory is required, but the advantage of this proposed approach is that it would constrain the alternative trajectories such that the overall budget was adhered to. Under the present approach, alternative

trajectories could be proposed which met the UK 2050 target, but lead to a heavily overdrawn UK budget.

## 2 Difficulties in measuring relative cost-effectiveness

We share the Committee's concerns about the use of marginal abatement curves (MACs). On top of the issues raised already by the Committee:

- Covering behavioural change

The Committee mentions using the MARKAL model for measuring costs. This model though good in many respects does not cover issues such as behavioural change. The Government uses figures for carbon cost-effectiveness in the transport sector which assume that cuts are expensive – The 2007 Energy White paper says (p236): *“the potential for significant short-term cost-effective abatement in the transport sector is limited”*. This analysis ignores many failings in cost-effectiveness measurement (such as the treatment of packages of policies, inconsistencies in definitions, lack of consideration of non-climate impacts), and ignores many cost effective packages of measures, particularly on behavioural changes. These issues are set out in detail in a 2007 UKERC report<sup>i</sup>: and in a report by Dr Anable<sup>ii</sup>,

- Over-use of theoretical models

In addition, the assumptions that cuts in the transport sector are expensive are based in part on the Stern view that *“the welfare costs of reducing demand for travel are high”*. The Committee discusses the basis for this: *“the traditional rational choice theory which assumes that people have maximised the welfare attainable from given income through their existing unconstrained consumption decisions, and that a policy driven move to another consumption pattern must reduce the attained welfare level”*. One flaw in the application of this theory is that existing choice are not the result of *“unconstrained consumption decisions”* at all – we do not live in a free-market, and as Stern points out, climate change is the result of massive market failures. We are not therefore living in a perfect theoretical state from which any policy intervention is by definition welfare reducing. In practice too, it is wrong to assume that because people travel, that is best for their welfare. They may travel because they have no choice – for example if the local hospital, school or post office closes, the impact of this is to increase travel demand while decreasing welfare. Policies to reduce the need to travel may in many cases increase welfare.

More generally we are concerned that much of Government appraisal rests upon theoretical constructs which are not applicable in the real world. A further example is the use in transport appraisal of Consumer Surplus Theory to calculate “benefits” to consumers of airport expansion – we have commissioned independent research in this area and will send this to the Committee in July 2008.

- Some measures are costly because of market failures

In addition, cost-effectiveness is not static. Indeed, some measures are not currently cost-effective because of existing market failures, as highlighted in Part IV of the Stern Review. Policies need to be introduced to correct these market failures, which would have the effect of changing the ranking of cost-effective policies.

- Distribution of costs

A further issue with cost effectiveness is the issue of who the costs fall upon. The Energy White Paper's figures show a figure of -£250tC for the fuel duty escalator (ie a net benefit), presumably based on the assumption that the financial transfer from consumers to the Government is a benefit – it appears more realistic to assume that this is simply a transfer, ie no net costs or benefits.

We are also concerned that any attempts to compare costs of policies with benefits of doing so will largely obscure major ethical and distributional issues. For example, in the current proposals to expand Heathrow, the benefits of expansion are largely “generated user benefits” to people who would take an additional flight because it would be cheaper with more capacity – ie welfare benefits of a cheaper flight for people who already fly a good deal. Whereas the costs are largely climate change costs, which will impact most heavily on the world's poorest people and countries. These ethical and distributional issues are reduced to a single figure – a plus or minus either way – and therefore effectively ignored, when presented to Government ministers and the public (eg “*We assess that a third runway would bring benefits of some £5bn, even after taking account of construction costs, and the costs of climate change emissions and noise*”, letter from Aviation Minister Jim Fitzpatrick to the Guardian, 15<sup>th</sup> March 2008)

### **3 Building in slack**

With every passing year, the science of climate change becomes more stark and the implications more urgent, as understanding grows. The IPCC reports get stronger each year. Nicholas Stern said of his 2006 review: “*We underestimated the risks . . . we underestimated the damage associated with the temperature increases . . . and we underestimated the probabilities of temperature increases.*”<sup>iiii</sup>. It is likely that this trend will continue. Even a small chance that this trend will continue would constitute a very strong argument for setting tighter earlier budgets, as once emitted carbon is out there, and the dangers of excess climate change are so large. The dangers and costs of overemitting are far larger than the costs of under-emitting.

A precautionary approach suggests that setting tighter caps in initial budget periods is a pragmatic approach. If the climate science doesn't worsen, or improves, then caps could be slackened in future budget periods.

#### 4 Buying in of credits from abroad

It is possible that the Act could allow emissions reductions from abroad, either from within the EUETS or from outside, to count towards the UK's carbon budget. We believe this would be a mistake. First, the prime purpose of the Act is to reduce the UK's emissions. Allowing purchases of "credits" from outside of the EUETS to count towards the budgets might mean that short-term costs are cheaper, however there are major negative medium to long-term implications.

Second, there are considerable concerns about both the quality and 'additionality' of project credits. There are no guarantees that projects are truly additional (i.e. would not have happened anyway) even if approved by the CDM executive board. One report in 2007 found that the 'additionality' of up to 20 per cent of the project credits issued up to that time could be suspect<sup>iv</sup>.

Third, the need for increasingly steep global cuts will mean such purchases are likely to become more expensive as overall caps bite. Economies that have relied on such purchases to accommodate carbon-intensive infrastructure and lifestyles will be locked-in to levels of emissions that are increasingly expensive and difficult to cut.

Fourth, the alternative path of cutting emissions in the domestic economy to stay within budget offers genuine economic opportunities. Improving energy efficiency and investing in new low-carbon markets and technologies will stimulate innovation and has potential to, according to the Stern Review "*trigger a new wave of growth and creativity in the global economy*". The Corporate Leaders Group on Climate Change believes that the UK can be on "the crest of this wave" ensuring "*first mover advantage in these massive new global markets*". Buying our way out of our responsibilities would delay the UK's transition to becoming a genuine low carbon economy, meaning the UK was more likely to lose out to other countries in the global opportunities in new technologies and industries.

Fifth, at an individual level, a major element of the climate change challenge is psychological – convincing people that it such a transition is possible, in the UK and abroad, and that individual action has a purpose as part of a greater effort. A large barrier to this at present is the public perception that the Government is seeking every opportunity to either water down its commitments, or find ways to avoid taking action – whether this is in arguing against necessary targets, or trying to find ways to avoid making cuts in the UK. If people do not see Government taking a lead, they are far less likely to act themselves, or respond positively to Government exhortations to do so. If they do take a lead it is more likely that people will act individually.

Sixth, internationally, one of the biggest barriers to gaining the necessary participation of developing economies like China will be whether they believe it is possible for mature industrial

economies like the UK to decarbonise. If countries like the UK do not set an unwavering lead, in action as well as rhetoric, global agreements will be extremely difficult to broker.

In measuring progress towards budgets, the actual emissions from the UK sectors in the EUETS should be counted rather than the number of permits allocated. This is because without it there is no incentive to develop any further policies to cut emissions in those sectors. For example, there would be no incentive to introduce policies to promote renewable electricity, and the future decisions whether to expand Heathrow or to allow a new generation of coal-fired power stations would have no effect on the UK's carbon budget. In addition, the caps set in the EUETS have so far been, and will no doubt continue to be, set on a political basis. If large carbon-intensive infrastructure is being built on the assumption that the EUETS will sort it out, then there will be large political pressure to set less tough caps in future. EUETS caps are already too weak without additional pressure in this direction being added.

This is not to say that the EUETS is not relevant – it is indeed perhaps the most important single mechanism to cut carbon, and is in urgent need of reform to ensure it does so. But the point is that EUETS is a driver for UK (and other countries) to find ways to cut emissions, not a mechanism for protecting sectors within it from the policies required to work alongside trading to deliver the carbon budget.

**The strategy needs to be clear that the carbon budget will be based on the UK's actual emissions, not actual emissions minus credits and permits.**

## **5 International aviation and shipping**

We do not understand why the Committee says that “*our initial budget recommendations... therefore will not include IA&S*” (our underlining). The reason seems to be that the recommendation on whether to include IA&S would happen at the same time as “our initial budget recommendations” – we do not see why the two happening at the same time would prevent the inclusion on IA&S from the initial budget period. DEFRA already measures and reports these emissions under Kyoto. Although it can be argued that even including these totals would underestimate the true picture ignoring as they do the ‘Brit’ flying effect of 70per cent of international flight arrivals and departures being by British citizens.

However, whether or not the emissions are included in the budget, it is essential that the Committee considers them when setting budgets (both global and UK). Put simply, if the Committee concludes that the appropriate budget for UK carbon emissions 2018-2022 is 500 MtC, then either

(a) if international aviation and shipping emissions are included in the budget, recommend the appropriate budget for that period is 500 MtC, or  
(b) if international aviation and shipping emissions are excluded from the Bill, the Committee must make its best assessment as to what quantity of such emissions will arise from this sector as a result the actions of UK citizens during this period and therefore recommend a budget that is reduced by this amount. So, for the sake of argument, if Government projected these sectors would emit around 15 MtC per year across this period, the Committee must recommend a budget of 425 MtC for the period to cover those emissions which are included in the budget. This should apply from start of the first budget in 2008. Although the Committee may subsequently need to retrospectively adjust the UK totals of IA&S emissions in light of future international agreements it is almost certain that this adjustment will be far smaller in magnitude than if they had been ignored altogether.

In one sense this is so obvious it may almost seem unnecessary to mention it – any budget setting process which did not take account of these sectors could hardly be described as taking account of the science of climate change, which is clear that all sources of carbon dioxide cause climate change, not just those that can be neatly measured from inside UK borders. But the target which was suggested by the RCEP report did not exclude international aviation and shipping, and yet when Government “accepted” the target it recommended, it excluded those two sectors – giving the appearance of accepting the target, while actually accepting a different, less rigorous one. The Committee must be absolutely clear in its deliberations and recommendations in order to prevent the same happening again.

A further issue in the “potential for emissions reductions” section is that international aviation is different to other sectors in that Government predictions are for major increases in emissions, even with significant technological improvements. These increases are being driven by predictions for falling prices and subsequently, increased demand. In this context, policies for demand management are crucial – it is not sufficient to encourage modal shift, but to prevent absolute increases. It is also likely that such demand management policies will turn out to be very cost-effective ways of preventing these increases – as the best tools are fiscal instruments – for example taxation would involve transfers (from consumers to Government, and back again as reduced taxes in other areas), ie little net cost or benefit.

## **Other issues**

**Competitiveness** concerns of vulnerable sectors should be dealt with by sector specific action, and should not be dealt with by weakening overall policy. Analysis of potential competitiveness claims shows they have been widely exaggerated<sup>v</sup> yet too often climate policies have been widely weakened as a result, such as the EUETS. The Stern Review is clear (chapters 11 and 12) that genuine competitiveness issues will be few – many sectors don’t trade internationally, of those that do energy costs are only a major issue for a relative few, of those few the majority are trading with countries bound by very similar regulatory and fiscal regimes.

We welcome the Committee's view that there is a strong case for including all **greenhouse gases (GHGs)**, not just CO<sub>2</sub>, agree with the scope of the Committee's proposed analysis on other GHGs, and hope the Committee will also set out a clear proposal for timetables for setting early strategies for other GHG reduction trajectories, whether these other GHGs are in the formal budget system or not.

On the issue of the **non-traded/traded** split, we note the likelihood that the EUETS will set caps equivalent to around a 1% annual cut in emissions, and the strong likelihood that such cuts would be far lower than those needed across the EU to meet overall targets/budgets consistent with keeping temperature rises below 2 degrees. In this situation, this would also put a great deal more pressure on the non-traded sector to deliver far greater cuts in order to keep overall emissions on budget. In this context there is not only a strong argument for redoubled efforts to strengthen the EUETS, but an additional argument that strong additional policies will be needed in the EUETS sectors to drive emissions down – not least to increase the political likelihood of being able to broker the much tighter caps which will be needed in later budget periods.

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<sup>i</sup> <http://www.lowcvp.org.uk/assets/reports/071220TransportEconomicsReportFinal.pdf> (see annex 4 and 5 in particular)

<sup>ii</sup> [www.bettertransport.org.uk/system/files/Carbon\\_abatement\\_research.pdf](http://www.bettertransport.org.uk/system/files/Carbon_abatement_research.pdf)

<sup>iii</sup> (<http://www.ft.com/cms/s/0/f8e1377a-0c15-11dd-9840-0000779fd2ac.html>)

<sup>iv</sup> "Emissions Impossible: access to JI/CDM – WWF June 2007,

[http://assets.panda.org/downloads/emission\\_impossible\\_final\\_.pdf](http://assets.panda.org/downloads/emission_impossible_final_.pdf)

<sup>v</sup> Grubb, M. et al (2005) Allowance allocation in the European Emission Trading Scheme: a commentary. Climate Policy 5.