

Personalising carbon emissions

Tina Fawcett outlines how individuals might be made more responsible for their contribution to global warming

Climate change is widely recognised as the world's most serious problem. The UK has pledged to take decisive action to reduce our national greenhouse gas emissions and is seeking to lead other nations towards lower emissions. Unfortunately, the most recent government figures show increasing rather than decreasing UK carbon dioxide emissions. This is even without taking into account emissions from international aviation (not counted in official figures), which are also growing fast.

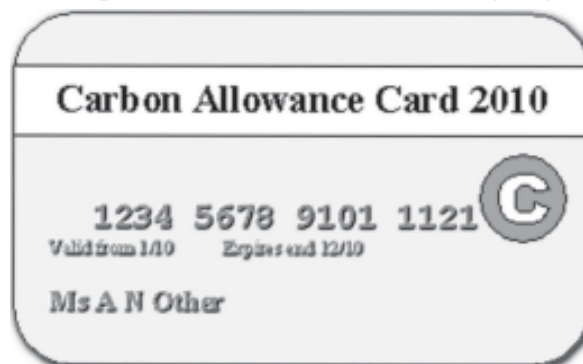
One of the key reasons that emissions, primarily from energy use, are still increasing is growing demand for the services energy can provide. Some everyday examples illustrate this. Air conditioning in new cars, which can add 15% to fuel consumption, has gone from a luxury specification to standard in the past ten years. Patio heaters, which can use as much gas



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as heating a whole house, are widely and cheaply available. Travellers are now invited to consider weekend breaks to South Africa, New York and beyond.

Altogether, if emissions from personal air travel (excluding



business journeys) are added to domestic emissions, 51% of the UK's carbon equivalent emissions are generated by individuals on their own behalf; (excluding international air travel emissions would reduce this to 44% of the total).

So, given constant temptations to increase our own usage of energy, what can be done to convert national climate change aspirations into reality?

This article introduces a new framework to reduce carbon emissions from individual travel patterns and use of household energy. The idea is the introduction of personal carbon allowances (also known as domestic tradable quotas / carbon rations / entitlements / quotas / shares).

In outline, personal carbon allowances would be a UK-wide allowance system covering the carbon emissions generated from the fossil fuel energy used by individuals within the home and for personal

transport, including carbon-equivalent emissions from air travel. It would account for around half of current UK carbon emissions from energy. The primary aim of the scheme would be to deliver guaranteed levels of carbon savings in successive years in an equitable way.

A parallel scheme would be required to cap and reduce carbon emissions from the other half of the economy, but this article does not describe that in detail.

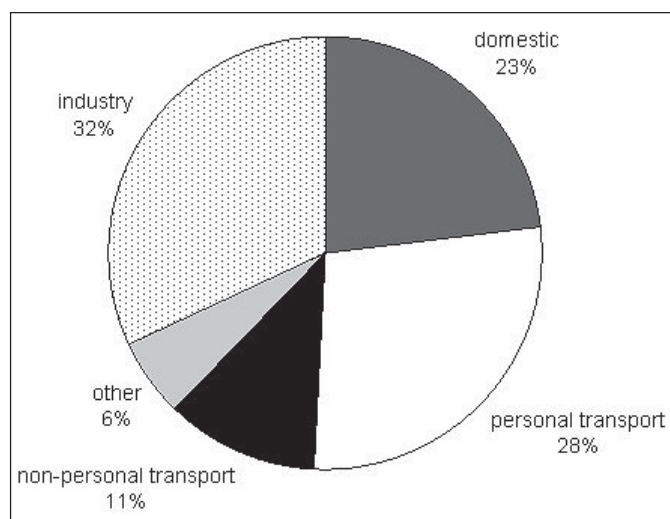
The main features of personal carbon allowances are:

- An equal annual allowance is allocated for each adult, with a smaller one for children
- The allowance covers the energy used in the household and for personal travel
- Allowances are tradable
- A phased year-on-year reducing allowance is signalled well in advance
- The scheme is mandatory

The least controversial aspects of the scheme are that the allowance should reduce over time and that the allowance system must be mandatory. Without these two aspects, savings could not be guaranteed. There is some debate about whether carbon emissions from air travel should be controlled at the airline company rather than personal level. However, the idea presented here covers all types of fuel-using transport which is used for personal reasons (rather than

ARE PERSONAL CARBON ALLOWANCES THE ANSWER?

Domestic uses and personal transport (including aviation) are both primarily the direct responsibility of individuals and account for the majority of climate change emissions in the UK



business travel), including journeys by air.

The aspects which generate most concern are the proposal for both equal and tradable allowances.

The case for giving each adult the same allowance is that it is the most equitable possible system. It is based on the principle that everyone has an equal right to share the available atmospheric capacity for emitting carbon. (This is the same approach which informs the Global Commons Institutes' 'contraction and convergence' framework for international sharing of carbon emissions reduction.)

The alternative, which is often suggested, is that people should be given an allowance according to their

'needs'. Under this model, rural dwellers could be given a greater allowance for travel than urban dwellers, and people living in inefficient homes greater allowances

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than those in efficient ones. However, car owners would also get greater allowances than those without, and flat-dwellers would lose out to those who need more allowances to heat their mansions. Frequent fliers would get a particularly large allowance, reflecting their 'need' to fly.

While the 'needs' method of allocation is often suggested as a

means to reduce the unfair effect of equal allowances, what it would do in reality is entrench the already privileged in their current position and reward those with higher carbon emissions. In addition, it would probably be impossible to assess individuals' 'needs' and allocate carbon credits accordingly. Equal allowances are not only fair in principle, they are likely to be the only allocation which can be agreed without endless special interest pleading.

Trading is an integral part of the carbon allowance scheme. Indeed, it is a necessary component given a system based on equal allowances and the current reality of highly unequal patterns of individual emissions. Although we do not know very much about individual emissions, a small pilot study has shown that annual personal emissions from a small sample of people in 2003 varied by a factor of twelve. These large variations between people highlight the need for trading.

Under a system of equal allowances, those who lead lives with a relatively low energy input by investing in household efficiency, renewables, and by travelling less will not need all of their share and will therefore have a surplus to sell. Those who live in large or inefficient homes or who travel a lot, will need

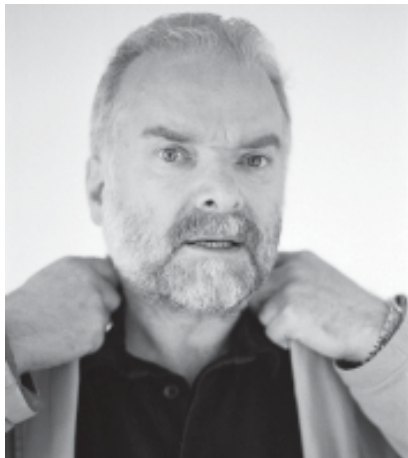


The often suggested alternative to giving everyone the same carbon allowance is that people should be given an allowance according to their 'needs': for example, people living in large houses or flying frequently should get larger allowances to reflect their 'needs'.

ARE PERSONAL CARBON ALLOWANCES THE ANSWER?

to buy this surplus to permit them to continue with something like their accustomed lifestyle. A market can be created to enable this trading to happen as easily as possible, with carbon allowances being bought and sold in Post Offices, banks, petrol stations and so on.

Administration should be relatively straightforward. Each person is given an electronic card containing the year's carbon credits. It would have to be presented for deduction of the correct amount of carbon on purchase of energy or travel services. The technologies already in place for direct debit and credit cards could be used. If, for example, you forgot your card at the petrol station, it would be possible to



Colin Challen, the Labour MP who last year introduced a private member's bill calling for the introduction of 'domestic tradable quotas'



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simply buy carbon credits at the market rate when you pay for your petrol, rather than taking them off your card.

In order to make it easy for people to adapt to a new, lower-carbon

'If carbon allowances are not the right answer, then what is?'

world there would need to be many supporting policies to enable us to make the right choices. These would include enhanced labelling of houses, cars, appliances, lights and airline tickets so that the carbon consequences of purchase decisions would be very clear. Energy meters and bills would give customers much better feedback and information on their emissions. In addition, many companies and social enterprises would emerge to help people live comfortably on a reducing carbon allowance.

One of the most common criticisms of personal carbon allowances is that they will never be politically or publicly acceptable. Although such a policy is unlikely to be adopted immediately, it is already beginning to attract serious interest amongst decision makers. For example, Colin Challen MP (Labour) introduced a private member's bill in 2004 which called for the introduction of 'domestic tradable quotas' (another name for carbon allowances).

Recently the Sustainable Development Commission, an independent organisation which advises government, has said the government should fund much more research on this topic with the aim of coming to a view about the acceptability of carbon allowances within the next two years.

Finally, Elliot Morley MP, Minister for Climate Change and the Environment, wrote in a letter to *The Daily Telegraph* "Personal carbon quotas is an idea whose time may not be about to come, but the actions of individuals in cutting emissions will be increasingly crucial". While sadly not a ringing endorsement, this at least demonstrates that carbon allowances are being discussed at high levels. The hope is that the wider

and deeper debate about carbon allowances, which is urgently needed, is now beginning.

Of course, there are unanswered questions, despite there being all sorts of outstanding research, policy and political questions about personal carbon allowances. These range from who the 'winners' and 'losers' would be under carbon allowances to what sort of IT systems would be necessary to manage such a system and what it might cost.

Research on carbon allowances, which is looking at these and many other issues, is continuing within two research organisations: the UK Energy Research Centre (at the Environmental Change Institute, Oxford University) and the Tyndall Centre (at the University of Manchester). Both organisations are also encouraging discussion within the wider policy, business and NGO community about carbon allowances.

The most important benefit of carbon allowances is that they provide an equitable framework for delivering guaranteed carbon reductions. Current policies do not do this.

Far more detailed thinking is required on how exactly carbon allowances could best work, and how people can be supported in reducing their emissions. Nevertheless, carbon allowances offer a clear opportunity for moving quickly towards a lower carbon emissions society, which is the real challenge for all of us.

Continuing as we are, or simply introducing more renewable energy and energy efficiency here and there, will leave us on a path of increasing carbon emissions and climate change. If carbon allowances are not the right answer, then what is?

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