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### **Tackling climate change with new permits to pollute**

A new way to reduce carbon dioxide emissions and tackle climate change had been unveiled by leading economists.

Under the proposals, companies would buy what are in effect permits to pollute, but the price of those permits would be controlled because the government would retain enough, at a fixed price, to stop the cost increasing above that level.

The economists, whose work is published tomorrow [Tuesday 6 January] along with two other research papers, say it could appeal to supporters of a carbon tax and also to those who favour the alternative, so-called cap-and-trade.

“It may well turn out to be the kind of proposal that the new White House and the new Congress wind up converging on,” says Professor Robert N. Stavins, Albert Pratt Professor of Business & Government, at the John F. Kennedy School of Government, Harvard University, and Editor of the Review of Environmental Economics and Policy (REEP) which is publishing the papers.

He added, “These papers on domestic US climate policy could not be coming at a more important time. The eyes of the world are turned towards Washington. People worldwide are not just asking how the new administration will participate in the global measures going forward, but more importantly, asking what the US is going to do domestically.”

The three papers looking at different ways of tackling carbon emissions are published tomorrow in the online edition of the Oxford University Press journal.

Until now there have been two options for reducing emissions – carbon tax and cap-and-trade. A carbon tax is a tax on the carbon content of fossil fuels. The result is that the more CO<sub>2</sub> a company emits, the greater the cost, with most or all of the money raised from the tax possibly redistributed to the public, because the aim is to discourage emissions rather than raise revenue. The problem with this approach is that it leaves uncertain the quantity of emissions reduction that will be achieved.

In the second approach, cap-and-trade, the government would set a limit for the annual emissions, and companies would buy permits or allowances for set amounts. Again, the money raised would be redistributed. While that would directly tackle the amounts of gas produced, the downside is that there is no control on the price of the permits and hence the cost of emissions reductions, resulting in significant cost uncertainty.

The neat solution proposed in one of the papers<sup>[1]</sup> is a hybrid cap-and-trade, where allowances are issued and bought, but a ceiling price enforced by the Government holding back a 20% proportion of them. They would have a predetermined set price which would ensure that the market price of those already issued would never rise above that price.

“The government would hold allowances for the purpose of selling them at a predetermined price,” says Professor Stavins. “As a result they will keep the price of allowances in the market from ever going above that level, thereby eliminating the upside cost uncertainty that has been of great concern to private industry.”

A second paper[2], suggests a carbon tax with a modification to protect poorer households who may suffer disproportionately. The more tax that energy providers pay, the greater the price rise to consumers. This paper proposes a novel system for distributing the money raised, with the lowest income group getting a credit worth 2.7 per cent of income and the highest income group, a credit worth 0.8 per cent of income.

The third paper[3] argues that a cap-and-trade approach has a number of important advantages, and that a system of tradable permits offers a great deal of flexibility in allocating the value of emissions: "Trading promotes cost-effectiveness, broad participation, and equity in the international context, without the high-level coordination that a tax would require," it says.

[1] Balancing Cost and Emissions Certainty: An Allowance Reserve for Cap-and-Trade  
Brian C. Murray (Director for Economic Analysis, Nicholas Institute, and Research Professor, Nicholas School of the Environment, Duke University), Richard G. Newell (Gendell Associate Professor of Energy and Environmental Economics, Duke University), and William A. Pizer (Senior Fellow at Resources for the Future). *Review of Environmental Economics and Policy*

[2] Designing a Carbon Tax to Reduce US Greenhouse Gas Emissions  
Gilbert E. Metcalf (Department of Economics, Tufts University) *Review of Environmental Economics and Policy*

[3] Cap-and-Trade, Rehabilitated: Using Tradable Permits to Control U.S. Greenhouse Gases  
Nathaniel O. Keohane *Review of Environmental Economics and Policy*

PDFs of the full papers are available on request from Roger Dobson or are available at  
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