Emission trading schemes limit green consumerism

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Schemes that aim to regulate greenhouse gas emissions can limit consumers' attempts to reduce their carbon footprints, according to an economist at the University of East Anglia (UEA).

Dr Grischa Perino suggests that some recommendations made by government agencies and environmental NGOs about how individuals can reduce GHG emissions are inappropriate in the European Union because of its Emissions Trading System (EU ETS), which caps emissions from certain industries, such as electricity production and aviation, and allows regulated sources to trade emission allowances.

Advice commonly given to consumers includes reducing the number of flights taken, replacing energy-hungry appliances and lightbulbs with energy efficient ones and eating less red meat.

But in a discussion paper published today by UEA's Centre for Behavioural and Experimental Social Science, Dr Perino says that once the EU ETS cap is in place, installing energy efficient lightbulbs, flying less and some other recommended actions have no impact on total emissions, as they are simply relocated to other sources via the system's trading mechanism. He claims that out of the above examples only eating less meat reduces total emissions, because in contrast to electricity production and aviation, emissions from agriculture are not covered by the EU ETS.

"Buying energy efficient appliances still makes a lot of sense as they

often save more on electricity bills than the extra cost incurred in buying them and it reduces other forms of environmental pollution, but it does not reduce greenhouse gas emissions," said Dr Perino, an environmental economist in the School of Economics and member of the Centre for Social and Economic Research on the Global Environment (CSERGE) at UEA.

He argues that understanding what polices such as the EU ETS cover is crucial for individuals wanting to contribute to reducing their carbon footprint, otherwise their efforts can "backfire".

"Consumers who want to reduce the climate impact of their consumption and lifestyle should focus on reducing emissions not regulated by the EU ETS, such as road transport, agriculture and other sectors with low energy intensity," he said. "Driving your car less, eating less red meat and improving the insulation of your home substantially reduces your carbon footprint. These unregulated sectors make up more than half of GHG emissions in participating countries and reducing those emissions is important."

The EU ETS is the biggest international system for trading GHG emission allowances and a cornerstone of the EU's policy to combat climate change. Under this so-called cap and trade scheme, emissions by one regulated source can be offset by another and firms that hold more emission allowances than they need can sell these to other firms, which in turn use them to increase their own emissions.

However, Dr Perino says that while this scheme reduces greenhouse gas emissions, it only does so because the cap is lower than the amount regulated sectors would emit in its absence, adding: "The two regional cap and trade schemes in North America, the Regional Greenhouse Gas Initiative and the Western Climate Initiative, follow the same basic design and similar results hold for them, as will be the case for the

Australian scheme once it is transformed from an emissions tax into a cap and trade scheme in 2015."

Dr Perino recommends that to reduce emissions in EU ETS sectors such as electricity production, people should put pressure on politicians to reduce the cap of the EU ETS. They can also buy and 'retire' emission allowances, thereby having a direct impact on emissions.

He suggests that carbon footprint labels measuring the life-cycle emissions of a product do not give consumers helpful guidance on how to reduce actual emissions, because they do not differentiate between emissions covered by the EU ETS and those that are not

"My analysis shows that basing decisions to reduce carbon footprints on both regulated and unregulated emissions, as recommended by government agencies, NGOs and established carbon footprint labels, can increase total emissions," said Dr Perino, whose findings are based on a mathematical model of consumption choices.

"For example, if you consider making a trip from London to Glasgow, flying has higher physical GHG emissions than a coach journey. However, additional emissions of flights are fully offset by the EU ETS, even without buying the offsets offered by most airlines when buying tickets, while those of the coach are not and therefore are additional. Surprising as it may sound, going by coach increases total emissions more than flying."

Commenting on the paper Prof Ian Bateman, director of CSERGE, said: "This is an interesting and useful study which highlights important implications of the EU ETS. It underlines a simple principle; when designing any regulation one has to recognise that individuals always react to changing conditions. The skilled regulator needs to anticipate that reaction from the outset and design any regulation with that in

mind."

Prof Corinne Le Quéré, director of UEA's Tyndall Centre for Climate Change Research, which works to develop sustainable responses to climate change, urged consumers to continue their efforts to reduce their carbon footprint. "It is critical that we significantly reduce our carbon emissions to tackle climate change," she said. "Reducing our individual energy use, particularly that of our travel, our houses, and our appliances, is the quickest and easiest way to reduce our own carbon emissions. This discussion paper takes a viewpoint at the level of individuals on the consequences of the European Emissions Trading scheme, which operates for industry. I strongly urge people to pursue their efforts to reduce their carbon footprint, whether they live within Europe or within any other industrialised economy."

More information: The discussion paper, entitled "Private provision of public goods in a second-best world: cap and trade schemes limit green consumerism", by Dr Grischa Perino will be published by the Centre for Behavioural and Experimental Social Science on Wednesday, January 30.

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