

In the first of two articles, **MICHAEL MOLITOR** outlines why a global voluntary market for carbon credits will be necessary to achieve the emission reductions needed to stabilise atmospheric greenhouse gas concentrations

# Carbon volunteers

**M**any companies are now buying several varieties of greenhouse gas (GHG) emissions reductions for voluntary purposes, including the offsetting of their direct emissions or offering carbon offset products and services to consumers. The potential size of this voluntary market is significantly larger – as much as 10 times – than the expected market for carbon credits used for regulatory compliance within and outside the Kyoto Protocol framework.

Considering the size of emissions reductions required to stabilise atmospheric concentrations of GHGs, a robust global market for 'voluntary carbon units' (VCUs) must form an important part of an efficient market-based solution.

In 2007, the Intergovernmental Panel on Climate Change (IPCC)<sup>1</sup> will release its Fourth Assessment Report, which will identify a stabilisation target for atmospheric concentrations of GHGs. With the current concentration approaching 380 parts per million (ppm), many scientists believe the stabilisation target identified by the IPCC will lie between 450 and 550 ppm. Stabilising concentrations at this level by 2050 will require a massive undertaking.

To put this into perspective, if all 25 countries within the EU Emissions Trading Scheme (ETS) meet their full Kyoto compliance targets through to 2012, this will have virtually no impact on achieving the stabilisation target in 2050. It is remarkable that this market, which many experts believe will be worth tens of billions of euros per year, is not large enough to make a meaningful impact on our global emissions trajectory. Adding the expected emission reductions from all of the other existing and planned compliance schemes – for example, Canada, Japan, New Zealand, and individual states in the US and Australia – to the EU ETS still leaves us a long way short of the required reductions to stabilise at 500ppm in 2050. Clearly, regulation is not enough to drive sufficient changes in global energy production and consumption.

## Lack of political will

The differences in political approaches show a lack of consensus and willingness to develop a global response and make it unlikely that governments will agree to impose sufficiently robust emissions targets on companies or individuals. The emergence of a 'technology-based' partnership between the US, Australia, China, India, South Korea and Japan, dissenting views by some EU member states, such as Italy, Greece and Spain, on extending the ETS beyond 2012 and the complete failure of governments to agree on how to structure discussions on Kyoto targets beyond 2012 at the upcoming COP/MOP1 meeting, only confirm the lack of political will.

Fortunately, members of the financial community have recognised the business risk associated with climate change and the need for the market to take action to bridge the regulatory gap. In the absence of real political pressure to address the problem, pressure is coming from leading institutional investors.

The Carbon Disclosure Project<sup>2</sup> (CDP) is playing a crucial role in leading a market-based solution for emissions reductions by leveraging the influence of its members to drive changes in the way companies approach the risks associated with climate change.

The CDP members, through repeated demands for information from companies on their carbon positions, are demonstrating their belief that there is a real link between shareholder value and the extent to which a company manages its carbon performance. This suggests that companies that fail to address their direct, indirect, and, in some cases, their product-based emissions, will erode shareholder

value and ultimately underperform the market and their competitors.

An effective way to demonstrate the problem facing companies is to look at the emissions profile of a single large global company, for example, oil giant BP. Like any company that markets a carbon-intensive product or service, BP's emissions profile includes direct emissions (from its wholly-owned assets), equity-share emissions (from its equity portion of jointly owned assets), indirect emissions (for example, from purchased power), and product-based emissions (emissions that result from the use of BP products, such as petrol and jet fuel).

BP reports on both its direct/equity-share emissions and on the emissions from the use of its products, and the disconnect between the two is glaring. BP's direct/equity share emissions are approximately 90 million tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) per year. However, its product-based emissions total a whopping 1.5 billion tCO<sub>2</sub>e/year. The latter figure is equal to about 5% of the total global GHG emissions from humans each year.

BP has made good progress on managing its direct/equity-share emissions, but it has done little to date to control the larger problem flowing from the sale and use of its products. Unfortunately, there is little technology available today or within the next decade that will make much of a difference to the fast growing emissions associated with the use of BP's products.

The lack of meaningful technology options to reduce emissions in the petrol and jet fuel sectors is also mirrored in the aluminium production, airline, power generation, and automobile sectors. Growth in demand for all of these products and services is rapidly outpacing the introduction of more energy efficient technologies. The explosion in the sales of the Toyota Prius and other smaller fuel efficient vehicles is more than offset by the growth in demand for automobiles and passenger-miles driven.

## Emissions growth

This leaves us with the inescapable conclusion that emissions in all of these sectors will continue to grow for some time. The only approach to controlling these large and growing emissions in the short to medium term will be to offset them with investments in carbon abatement projects from other sectors. This is not a long-term solution, but merely a 'bridging' strategy to help drive emissions reductions in the period before large-scale penetration of low carbon technologies will occur. This may take a decade before widespread use of low-carbon technologies will render the use of carbon offsets superfluous.

A crucial factor for the voluntary offset market will be the development and recognition of global standards and processes. A coordinated international effort now exists to create global standards for VCUs that will mirror the metrics and procedures that apply to the compliance market. The rules for the voluntary market need to be robust yet, at the same time, recognise the fact that the reductions are being used on a voluntary basis. The second article in this series will explore the emerging rules, institutions and procedures as well as the organisations involved.

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## NOTES

1 See <http://www.ipcc.ch>

2 See <http://www.cdproject.net>