

## VIEWPOINT

Proposals to reform the EU's pioneering emissions trading scheme are a step in the right direction – but more radical changes are needed, argues **Simon Tilford**

# WHEN THE PRICE ISN'T RIGHT

**The global economy is not on a sustainable environmental footing. If we continue using resources in the same way as we do now, we will do irreparable damage to the planet and to human wellbeing.**

According to UN forecasts, the world's population will rise by 2.5 billion, or around 40 percent, by 2050. Barring disasters, income per head will rise four-fold over this period, resulting in a six-fold expansion in the size of the global economy.

If we continue to rely on existing technologies, such an expansion of economic activity will lead to catastrophe. Indeed, it would probably be impossible, since we would face environmental disaster first.

Thankfully, climate change has moved right up the political agenda. Unusual weather conditions worldwide and a growing awareness of the economic and security costs of climate

change have altered the terms of the debate.

by 2020 (from 1990 levels), rising to 30 percent if other major emitters also commit to significant reductions. But the Union needs to ensure it has the policies in place to meet the target.

The EU has put emissions trading at the core of its strategy to curb greenhouse gases. This involves creating a price for a gas or pollutant by establishing a cap on its annual emissions. Allowances are allocated to businesses and other emitters, either free of charge or by auctioning them to the highest bidder.

The EU emissions trading scheme (ETS) sets a cap on emissions of carbon dioxide, and hence puts a price on these. In so doing, the EU hopes to spur innovation and the adoption of low-carbon technologies. The industries covered by the ETS are responsible for a little over 40 percent of the EU's total emissions, but the European Commission has proposed that they

deliver two-thirds of the targeted reduction in overall EU emissions by 2020. It is therefore absolutely crucial that Europe's carbon market delivers.

January 2005 to December 2007. The second phase began in January 2008 and runs to the end of 2012, coinciding with the end of the first commitment period under the Kyoto protocol.

The way the ETS has worked in practice highlights both the pitfalls and potential of emissions trading. A market price in carbon was quickly established, as was a market in carbon futures, providing a longer-term price signal.

But there have been serious problems. Because national emissions caps (known as national allocation plans, or NAPs) turned out to be insufficiently ambitious, carbon prices collapsed, falling to just €1 a tonne in December 2007.

The decision to hand out most allowances for free – so-called grandfathering – led to some perverse results. For example, although power generators received the vast majority of their allowances free of charge, they raised electricity prices as if they had paid for their allowances in full, reaping hefty windfall profits in the process.

Differences between the member states in terms of how many allowances are auctioned and which companies are included in the system also created competitive distortions.

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The EU's role is pivotal. It has already taken the lead by setting a target of a 20 percent cut in emissions

deliver two-thirds of the targeted reduction in overall EU emissions by 2020. It is therefore absolutely crucial that Europe's carbon market delivers.

The first phase of the ETS ran from



No free ride: the Commission wants utilities to pay for all of their carbon permits

## Putting a cap on carbon

The EU emissions trading scheme (ETS) sets a cap on emissions of carbon dioxide (the principal greenhouse gas), and hence puts a price on carbon emissions. Previously, energy users had been free to emit as much of the gas as they wanted.

The ETS is the first international emissions trading scheme and the world's largest for carbon dioxide. It is the cornerstone of the EU's strategy to meet its climate targets.

What about the second phase? The availability of verified emissions data enabled the Commission to take a tougher line with EU governments when negotiating caps for 2008-2012. The NAPs for this period represent a five percent reduction in allowances compared with 2005, which has been sufficient to ensure a meaningful price for carbon during the second phase. After falling to under €1 a tonne in December 2007, prices were around €30 in late August 2008.

A carbon price of this magnitude will certainly provide firms with an incentive to use carbon more efficiently, but it is unlikely to lead them to invest in clean technology. For that to happen, companies would need more confidence that they would be rewarded for such investment. This requires a much longer time frame and coordinated action by the EU to stimulate the take-up of new technologies. Also, most allowances will continue to be handed out for free in 2008-2012, with the result that energy generators will earn further windfall profits during this period.

The Commission's recommendations for reform of the ETS from 2013 would correct most of its flaws. EU-wide sectoral caps in place of national allocation plans would be a big step forward: this would remove governments' discretion over the level of national allocations and the distribution of the required cuts in emissions between those sectors of the economy covered by the system and those that are not.

Forcing power utilities to pay for all their allowances from 2013 would put an end to windfall profits, while the progressive move to full auctioning of allowances for the other sectors would comply with the "polluter pays" principle.

Photographs: Reuters



These are big steps forward and the Commission deserves huge credit for proposing them. Within the current political confines, this is a result. But given the pivotal importance of the ETS, not just in terms of meeting the EU's emissions targets, but also of its demonstration value globally, more radicalism is needed.

Member states face a number of conflicting pressures – the need to cut emissions of carbon dioxide while ensuring the support of industry, as well as compensating companies for foregone profits. The administration of the ETS, including carrying out auctions and regulating the carbon market, would be best performed by an independent institution – a European environmental board, operating within policy parameters established by legislation. If companies are to invest in low emissions technologies, they need to be confident that the politics, as far as possible, has been taken out of the equation.

There is an interesting analogy with monetary policy. The case for independent central banks is that governments face contradictory pressures: the markets (rightly) do not trust finance ministries to maintain price stability, because for politicians economic growth and employment are almost always more important. Although in the long term, price stability is a prerequisite for growth and employment, in the short term there is often a trade-off between price stability on the one hand and growth and employment on the other. That is why nearly all central banks now have just one key aim, to control inflation, and why they tend to enjoy a high degree of independence from political interference.

At present, there is pretty broad consensus in favour of the ETS and in support of the EU emissions targets as a whole. But there are question marks over the durability of political

support. Member states are quick to react when the perceived competitiveness of their industries is threatened. Once carbon gets more expensive – as it will in the third phase of the ETS – special pleading and political lobbying will intensify. This is especially so given that economic growth across much of Europe is likely to be relatively weak between now and 2020.

Crucially, a European environmental board would be responsible for driving the roll-out of new technologies, such as carbon capture and storage (CCS).

As it stands there is a risk that even in the third phase of the ETS, much of the reduction in emissions will

pipeline linking them, if all power plants and major industrial installations that rely on burning fossil fuels are to be converted to CCS.

A European programme such as outlined here would build confidence, knowledge and capability in CCS and raise the prospect of it being commercially viable for all fossil-fuel power plants by 2020. Crucially, it would demonstrate Europe's know-how and strengthen its bargaining position *vis-à-vis* emerging markets such as China and India. Both countries know they have to incorporate CCS as soon as possible, but are unwilling to adopt untried and prohibitively expensive technology. The

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come about through switching to alternative fuels. This will help the EU to meet its targets, but through a one-off reduction and not the investment in low- or zero-emissions technologies needed to bring about a sustained cut in emissions. For example, firms will only invest in CCS if the price per tonne of carbon dioxide avoided is lower than the carbon price. Unfortunately, the gap between the cost of electricity with or without CCS will remain too high through to 2020 to ensure that firms invest in the technology.

There are a number of CCS projects underway in the EU, but they are small-scale and a long way from the coordinated action that is needed. The environmental board could use a proportion of the revenues from auctioning allowances to help finance demonstration projects and the infrastructure to transport and store carbon dioxide.


There will have to be a Europe-wide network of storage facilities and a

EU could subsidise the transfer of this technology to them in return for action to curb emissions.

The second key reason why we need more independent institutions is demonstration value. Without greater independence, there is a risk that the EU ETS will fail to act as a model for the international bodies that will be needed to manage global emissions trading and the allocation of emissions caps internationally.

If the world is to succeed in cutting its emissions of carbon, there will have to be a global carbon price; the EU alone or even the EU and the US can only do so much. There needs to be an international organisation which allocates quotas internationally, monitors progress on meeting targets and helps finance the international diffusion of low carbon technologies.

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The ETS covers large generators and combustion installations (those exceeding 20MW thermal), the ferrous metals, cement, glass, ceramic and bricks sectors, as well as the pulp and paper industries.

The industries covered by the ETS account for around half of the EU's total emissions of carbon dioxide and slightly more than 40 percent of its overall emissions of greenhouse gases.

The European Commission proposes that two-thirds of the targeted reduction in overall EU emissions of carbon dioxide by 2020 should come from the sectors covered by the ETS.