



TRICKS OF THE TRADE

As the EU announces it is to withhold millions of carbon credits from the market, **Annie Reece** explores the quandary of carbon trading

Carbon dioxide (referred to here-on-in as 'carbon') is the most important greenhouse gas (GHG) in terms of human-made climate change. Belching out from countless power stations and emitted in huge numbers through inefficient industrial processes, we're producing the stuff – and other GHGs measured in terms of carbon – quicker than the earth's plants can absorb it, leading to drastic climate change. With the climate change agenda firmly embedded in politicians' and society's vocabularies (if not their minds), it's perhaps surprising that there doesn't seem to be a sure and fast way of dealing with the carbon crisis. To date, there are two main methods of trying to staunch the flow of carbon emissions: carbon tax, which puts a levy on all carbon produced, and carbon trading.

Carbon trading, the form favoured by the European Union (EU), involves a 'cap and trade' mechanism, which sets a limit, or 'cap', on the amount of emissions allowed, with companies then allocated permits for the emissions they are expected to produce. If they produce less than expected, they can potentially turn a profit by trading their allowances

with other companies that have performed badly and need the extra permits (though companies can also trade their carbon permits in the financial markets as any other derivative commodity). Then, over time, the governing body should reduce the number of credits released, theoretically bringing down carbon emissions. Environmentalists and climate justice movements often criticise this method, as it is seen as offering 'permits to pollute' and 'putting a price' on our fragile climate systems, in effect allowing companies to produce emissions without having to make any drastic changes. It is exactly for this reason that politicians and businesses have embraced the carbon trading market. The root of the debate, it seems, harks back to the power of economy versus the power of climate protection.

"Either trading or tax can be effective, but the reality is that there has not been enough

political support for a tax that would give the same widespread implementation that there has been for carbon trading through a 'cap and trade' system", Eric Lounsbury, Associate Director at carbon reduction organisation the Carbon Trust, tells me.

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"The simple fact is that for a lot of organisations and individuals, energy costs are just an immaterial cost and consideration. They don't put a lot of time into thinking about how they can reduce their energy and carbon costs. Carbon trading is seen to be a mechanism that helps the economy find the least expensive ways to reduce emissions, but it cannot solve the problem on its own." Lounsbury adds that there needs to be a range of different mechanisms, such as regulations on energy-consuming products and the energy efficiency of buildings, to meet climate policy goals.

Despite being popular, carbon trading has run into difficulties recently. In July, the world's largest carbon trading market (which covers around 11,000 power stations and industrial plants) – the EU's Emissions Trading System (ETS) – was reworked, in the EU's euphemistic explanation, to 'rebalance supply and demand and to reduce price volatility without any significant impacts on competitiveness'. According to the European Commission (EC), though the cap on emissions in Phase II of the EU ETS (2008-2012) was tightened by 6.5 per cent on Phase I (2005-2007) levels, the economic crisis 'radically altered the picture' and quickly led to a growing surplus of allowances and international credits compared to emissions, 'significantly weakening the carbon price signal'.

Indeed, the EC estimates that the price of ETS permits (each one worth the right to emit one tonne of carbon dioxide) should sit around €20 (£17) to be able to 'drive investment in clean technologies', but in January this year, the price dropped to less than €5 (£4) per permit.

The dramatic fall in prices prompted several governments, including the UK's, to issue a statement saying that they were 'deeply concerned' that the EU ETS 'as currently designed' could not provide the price signals needed to stimulate low-carbon investment. They added that the system needed to be reformed 'because the supply of allowances substantially outstrips demand, leading to a very low carbon price [that] threatens the credibility of carbon markets as the most flexible, cost-effective way to achieve emissions reductions'.

As such, the EC has now voted to withhold the 900 million credits that were due to come onto the market between 2013-15 until 2018-20 'when it is expected that demand will have picked up'. But research collective Carbon Trade Watch warns that this is just a short-term fix to what is a fundamentally flawed system. The group's Joanna Cabello explains: "The

EU ETS has been designed to lock-in an economic system dependent on fossil fuels while expanding and increasing the role of financial markets for the benefit of polluting actors.

"After seven years of failing to reduce emissions at source, current attempted reforms to the ETS are only a distraction from the needed transition away from the logic of over-production and consumption based on fossil fuels." Indeed, campaigning organisation Sandbag found that the second phase of ETS set the cap 644 million tonnes higher than actual emissions over that period and delivered carbon savings of less than a third of one per cent of total emissions.

Cabello concludes that the ETS reforms show that the carbon market is at an "evident point of collapse": "Greenhouse gas emissions have increased. There

have been many documented fraud cases; extensive windfall profits to the biggest polluting industries all over Europe; and human rights and environmental abuses all over the world – especially to vulnerable groups through carbon offset projects. So, does carbon trading work? Not for the climate, not for the environment, and definitely not for all those groups resisting against the expansion of extractive industries, which are one of the main causes of climate change in the first place."

However, the EC has maintained that Europe's experience of a market-based system for reducing CO₂

emissions is still seen as a 'credible option'. Matthias Groote, European Parliament rapporteur responsible for steering the ETS backloading legislation through the parliament said: "We shall not let the ETS be the victim of short-term concerns", adding that "structural reforms" of the system will now be considered to "ensure it remains the cornerstone of EU's climate policy".

But what will these reforms look like? In its first report on the state of the European carbon market, published in November 2012, the commission identified six options, which could potentially correct the 'growing imbalance between supply and demand'. These were:

- increasing the EU's greenhouse gas emissions reduction target for 2020 from 20 per cent to 30 per cent below 1990 levels;
- 'retiring' a certain number of Phase III allowances permanently;
- revising the 1.74 per cent annual reduction in the number of allowances to make it steeper;
- bringing more sectors into the EU ETS;
- limiting access to international credits; and

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• introducing discretionary price management mechanisms such as a price management reserve.

The EC has said it is seeking to prepare a plan for structural reforms to the EU ETS by 'the third quarter' of 2013. Yet many groups have warned that reforms of the system, no matter how stringent, will not go far enough to reduce carbon emissions. Indeed, Carbon Trade Watch, together with 44 other civil society organisations, wrote to MEPs listing 'urgent' actions needed to counter climate change, including: scrapping the ETS; working toward a European ban on fracking projects; phasing out public subsidies for fossil fuel exploration and use; and supporting small-scale, locally-owned and governed sustainable energy initiatives.

The statement to the EC reads: 'The EU ETS has not been designed to send a "price signal" that could influence long-term investment since even the most insignificant potential price signal is always immediately cushioned through subsidies. . . Instead of wasting more time on attempts to reform the EU ETS – which thus far has been actively undermining climate objectives – MEPs should be working on phasing out fossil fuels and adopt effective energy, finance and trade policies to tackle climate change.'

However, one of the most commonly cited (and less reformative) ideas is to change the ETS so that carbon permits are released in reaction to price: fewer permits would be released onto the market when prices are low, and more when prices are high. Lounsbury suggests that the EC should set a carbon price floor – a minimum price paid for carbon credits – and build in flexibility to tighten the ETS cap as necessary to "protect against the collapse in prices that we've seen over the past two years".

The UK has already introduced a concept similar to this, through the Climate Change Levy's carbon price floor (introduced in April of this year), a tax that requires energy-intensive companies to pay a carbon price of at least £16 per tonne this year, rising to £30 by 2020 and £70 by 2030. According to the Department of Energy and Climate Change (DECC),

the price floor aims to 'drive £30-40 billion of new investment in low-carbon technology, encouraging green growth and driving down electricity prices in the long term'.

Aside from the price floor, the UK also has in place a system targeting the large 'non-intensive' organisations not covered by the EU ETS (such as local authorities and supermarkets), which have to participate in the Carbon Reduction Commitment Energy Efficiency Scheme (CRC). This requires organisations that have a half-hourly metered electricity consumption greater than 6,000 megawatt hours per year to monitor and report their CO₂ emissions annually and buy allowances corresponding to their emissions from energy use: the more CO₂ emitted, the more allowances needed. According to DECC, the CRC could help the sector save around 1.2 million tonnes of carbon per year by 2020.

But like the ETS system, this scheme has also had its difficulties. Since launching in 2010, the CRC has gone through radical changes, largely due to concerns by the organisations involved that the system was too complicated and cumbersome. To address these concerns, government has been 'fine tuning' the scheme, and following the 'Consultation on simplifying the CRC Energy Efficiency Scheme', announced proposals that would 'reduce complexity, give greater business certainty, and less overlap with other schemes' and deliver administrative cost savings of £275 million by 2030.

Key amongst the changes was the notable backtracking of a proposed cap and trade system (scheduled to come into effect in April 2013) in favour of a fixed price. This, DECC said, was supported by most as a 'welcome simplification', although a 'small number' reportedly expressed concern that this would reduce incentives and have an impact on trading.

Further, the CRC was amended to no longer include the performance table, which ranked organisations by their level of emissions reduction, and reduction relative to business growth. At the end of each year, revenue raised from the scheme was originally

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USING THE EU ETS SYSTEM

reassigned to the organisations taking part to fund further efficiency projects – with those ranking highest receiving the largest share. However, under the recent changes, the performance table has been scrapped, and money raised through the commitment will now go to the government, rather than to those firms that cut their bills the most (effectively making it a tax). It's this change that could have the largest impact on businesses, says Lounsbury.

"As the CRC has changed, it has eliminated some aspects of the scheme that were valuable and needed in this space. For instance, the league table and everything that surrounded that was an important reputational driver. There are a lot of arguments about how effective and relevant the league table was, but I'm quite certain that people were concerned about their organisation's ranking on the league table. That driver has now been lost, and the CRC is no longer as strong as it was."

However, from 1 October, all business listed on the London Stock Exchange (approximately 2,400) will have to disclose the amount of GHGs they are emitting (not just their emission reductions from energy efficiency), making the UK the first country to make it compulsory for companies to disclose their emissions data in their annual reports. If deemed 'successful', the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 will be reviewed in 2015 to consider the possibility of extending the mandate to all large companies in 2016.

It's clear that there is no easy option for tackling carbon emissions whilst maintaining an attractive climate for large businesses to invest in. And although it's right that regulations should be updated to reflect changing climates, reforming existing systems (such as the ETS and CRC) can often lead to more confusion and disruption than implementing completely new, stricter policies. But for now, it doesn't look like carbon trading will be going anywhere anytime soon. Lounsbury concludes: "For all its many complications, carbon trading is still the most effective approach to setting a price on carbon that we've got. It's also really the only approach we've got that has been able to get political acceptance. Realistically, we need to tackle the issue where we can, and where government [and business] will support it. So cap and trade is a good way to do that."

Aluminium rolling and recycling company Novelis has seen several of its plants within the European Union come within the scope of the EU ETS regulation this year. Below, Andy Doran, Senior Manager of Sustainability and Recycling Development at Novelis, tells *Resource* his thoughts on the EU ETS system.



through general energy pricing, the incentive to minimise energy consumption remains strong.

Q: What changes would Novelis wish the EU to bring in (if any) to reform the ETS mechanism?

A: It is right that bodies like the EU set market-based carbon policies that allow industry flexibility to meet reduction targets, but it is less clear whether public bodies like the EU are also able to react quickly enough to adapt that system when market conditions deviate radically from what was planned. Something more responsive is needed.

Overall, we would like to see carbon policies that encourage investment in decarbonisation and reward products that deliver low-carbon consumption throughout their lifecycle. In particular, the current scheme does not fully recognise or reward the benefits that accrue from aluminium recycling, itself an energy process, but one that delivers significant benefits compared to primary aluminium production. Therefore we would like to see full compensation for the indirect effect of any emissions trading schemes on electricity prices for recycling-based businesses like ours in all member states. Also, as a growing business, we want to see carbon measurement on a per tonne or per unit aluminium rather than an absolute basis, as caps on emissions could restrict our growth opportunities.

Novelis aims to halve its GHG emissions by 2020 (against a 2007-09 average baseline). ■

Q: How well do you believe the ETS system works in reducing emissions?

A: Carbon trading will definitely work so long as the basic framework conditions are right. The theory behind cap and trade systems, like the EU ETS, is sound, but the European scheme has been outflanked by circumstances where an oversupply of permits and the economic downturn have led to a collapse in demand for, and therefore the price of, carbon permits. It's clear that the scheme was designed to operate effectively with higher permit prices and current ETS prices alone are not strong drivers for energy-efficiency improvements.

Q: What is new for ETS Phase III?

A: An important change in Phase III of the scheme is the inclusion of electricity generating companies within the scope. This effectively brings in all the indirect emissions caused by power generation, passing the ETS price of carbon directly to power consumers. Despite the low cost of ETS permits, the price of carbon included by power generators is significantly increasing energy prices. So overall, either through ETS or