



European Union Emissions Trading Scheme: Looking Towards Phase III



Background

The Kyoto Protocol requires the European Union (EU) to cut emissions of greenhouse gases to 8% below 1990 levels in the period of 2008 to 2012. It covers the six greenhouse gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride. In most assessments the unit of greenhouse gas emission is treated as carbon dioxide equivalents, and hence quoted as tonnes of carbon dioxide.

The EU Emissions Trading Scheme (EU ETS) is the European response to the Kyoto challenge. It aims to reduce emissions from the most energy intensive industries. The purpose of the scheme is to help EU states achieve their Kyoto Protocol commitments. Compliance is a legal requirement and governments that do not meet the terms of the EU ETS directive will be challenged under European law. The EU itself can be penalised under Kyoto if it fails to meet its target.

How the EU ETS works

The actual trading refers to the trading of rights, or carbon credits, to emit pollutants into the atmosphere. One carbon credit represents the right to emit one tonne of CO₂. Individual companies are allocated a certain number of credits (their 'allowance') which the Member States define in their National Allocation Plans. Companies that keep their emissions below the level of their allowances can sell the excess credits. Those that emit more than their allowance can buy extra at the market rate. The higher the market rate of carbon credits, the more attractive it will become to invest in more efficient technology or switch to less carbon intensive fuel.

Companies may trade credits directly with each other or via a broker or other market intermediary. A registry system keeps track of the change in ownership of credits that have been traded.

Phase I of the trading scheme ran from 1 January 2005 until the end of 2007, with the second phase running from 2008-2012. Phase III begins immediately after the international commitments in the Kyoto Protocol expire, and runs from 2013 till 2020. The EU has committed to reducing emissions versus 1990 levels by 20% by 2020.

The current situation

The carbon price has been weak during Phase II largely because of the economic slowdown and the resultant fall in manufacturing output. For example in 2009 UK steel production was 27% below 2008 levels.¹ This has resulted in lower emissions with the outcome that allowances issued to these sectors have exceeded their needs.

This means that the carbon price is not currently at a high enough level to promote investment into lower

carbon alternatives. However, carbon credits are bankable from Phase II for use in Phase III, so this has supported the price from collapsing completely. Some large coal burning utilities are buying credits to bank them whilst they perceive the price as being low. Unfortunately for the ETS this could have a negative impact on the EU achieving its emission reduction goals in Phase III, unless the availability of carbon credits in Phase III auctions is restricted.

Aviation sector

The aviation sector is a special case. It is to be included in the EU ETS from 2012, the year before Phase III begins. In preparation for this, aircraft operators are required to submit independently verified emissions data for 2010 by the end of March 2011. However there is still some resistance to this. There is dissatisfaction amongst European airlines that 2010 data is being used as the benchmark for total emissions, as the EU is not taking into account

the reduction in flights as a result of the Icelandic volcanic ash cloud. In addition the US Air Transport Association is mounting a legal challenge aimed at exempting US carriers from the system, claiming that to include them in the EU scheme is contrary to the Convention on International Civil Aviation (the "Chicago Convention"), the Kyoto Protocol and the US-EU Open Skies agreement.² As a result, there may well be delays to the ETS including airlines.

Phase III

The sectors currently included in the EU ETS are combustion power plants, oil refineries, iron and steel plants, cement factories, glass, lime, brick and ceramics manufacturers and pulp and paper producers. The majority of the emitted CO₂ from these sectors currently comes from the combustion powered electricity generators³, which will remain the most affected and therefore the most active in emissions trading going forward. There will be some additions to the coverage in Phase III and these are illustrated in the table below with comparison to the Phase I-II base coverage.

Industry	Phase I-II	Phase III
Combustion Power Generation	Carbon dioxide	Carbon dioxide
Oil Refining	Carbon dioxide	Carbon dioxide
Iron & Steel	Carbon dioxide	Carbon dioxide
Cement	Carbon dioxide	Carbon dioxide
Glass, Lime, Brick, Ceramics	Carbon dioxide	Carbon dioxide
Pulp / Paper	Carbon dioxide	Carbon dioxide
Petrochemicals, ammonia and aluminium producers		Carbon dioxide and perfluorocarbons
Nitric, adipic and glyoxylic acid producers		Carbon dioxide and nitrous oxide

Table created with information from www.environment-agency.gov.uk

Phase III will see an increase in auctioning levels with at least 50% of allowances being auctioned from 2013 compared to around 3% in Phase II. The UK power sector will be subject to full auctioning from 2013 onwards meaning electricity generators will need to purchase all their allowances for a particular year through this method. At the other extreme, sectors deemed at significant risk of relocating production outside the EU due to competitive disadvantage of having carbon liabilities versus non EU-based international competitors, will receive 100% of the benchmarked allocation free of charge. The remaining sectors not deemed at risk of such relocation will receive 80% of their benchmark allocation free in 2013, declining to 30% in 2020.⁴

The carbon credit market had been expected to tighten going into Phase III due to tighter emissions caps and an increase in auctioning for allowances. However with unused Phase II allowances being bankable for use in Phase III, this may not materialise. The recession lowered Euro-zone fossil fuel emissions from industries by 11.6% in 2009⁵ and this together with the austerity measures being adopted by many European governments would appear to have severely damaged the prospects of utilities being induced through the 'market forces' of the ETS to invest

in lower emission generation. Also, the new entrants such as aluminium producers and airlines are to have the number of permits available to them calculated separately, which will shield existing participants from any rise in demand for allowances created by their introduction to the scheme.

There does appear to be a growing political will to fix this situation. One solution would be to increase the targeted cut in emissions for the EU to 30% by 2020 rather than the current 20%. The other would be to introduce a floor price for carbon permits. In July the UK, French and German climate change ministers announced their support for the more ambitious target and Chris Huhne, UK Energy and Climate Secretary said "the current 20% target is not sufficient to encourage companies to make the necessary investment in green technologies and green jobs". However, there appears little drive to conclude the debate prior to the next UN climate conference in Mexico at the end of 2010.⁶ There is to be a formal review of the ETS in 2014 along with the Copenhagen Accord in 2015. These may represent a more realistic time horizon for implementing any required carbon market tightening, particularly if the economic environment is more supportive than it is now.

1. Engineering Employers Federation, "The EU Emissions Trading Scheme and Carbon Pricing"
2. "ATA challenges application of the EU ETS to US airlines" www.airlines.org Dec 2009.
3. Environmental Finance Climate Report June 2008
4. Department of Energy and Climate Change "EU ETS Phase III (2013-2020)"
5. Dr Samuel Fenwick "The EU ETS: current state of play" July 15th 2010
6. Citi Investment Research "Feedback from Carbon Markets Day in Brussels" May 2010

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