

The EU's Emissions Trading System

The European Union cap and trade system is the most developed in the world and will become progressively tighter and more comprehensive as the decade progresses.

The EU's emission trading scheme (ETS) - kicked off in 2005 and, following an initial pilot phase, now in its second phase - is the **most ambitious** of its kind in the world. It covers about 12,000 installations in 30 countries¹ and 41% of the EU's CO₂ emissions. The ETS sector includes the power and heat generation sector, combustion plants, oil refineries, coke ovens, iron and steel plants and factories making a.o. cement, glass, lime, bricks, ceramics.

The pilot phase has succeeded in attaching a price to carbon and changing the culture of corporations in a very short time. The impact of carbon is **on the board room agenda** and built into company strategies. Secondly, a reliable monitoring, reporting and verification system, which is the backbone of any functioning ETS, is now in place. Thirdly, management systems have been set up and operational experience has been gained. Fourthly, the EU ETS has been instrumental in spurring the development of CDM projects.

Phase 1 was a test phase and not conceived to result in major emission cuts. Yet, around 200 million tonnes of CO₂ or 3% of total verified emissions were abated due to the ETS at very low transaction costs.² These achievements are all the more remarkable if one considers that the scheme was set up very rapidly, with little information available regarding actual GHG emissions. As a result, markets realized belatedly that phase 1 suffered from over-allocation. It was this which led to the price volatility and low first period price. As a response, inter-phase banking of allowances was introduced from 2008, when phase 2 started, and allocation plans were tightened.

In a revision of the EU ETS Directive³ in December 2008, **several features of the scheme were considerably strengthened:**

- Phase 3 has a **prolonged compliance cycle**, spanning from 2013 to 2020, and will incorporate a **centralized EU-wide allocation of allowances** with a yearly linear decrease of the emissions cap of 1.74% per year, even beyond 2020.
- **Auctioning will progressively replace free allocation.** Free allocation of emission allowances has been a key element for acceptance of the EU ETS in the pilot phase but comes at an efficiency loss. Apart from a few transitional exemptions, the whole power sector will have to auction emission allowances. The European Commission expects that at least 50% of all allowances, corresponding to 1 bn tCO₂, will be auctioned in 2013, and this proportion will rise each year.
- Industrial installations will receive allowances on the basis of **product-specific EU-wide benchmarks** but must purchase at least 20% of allowances in 2013 rising to 70% in 2020

¹ European Union's 27 Member States, Iceland, Liechtenstein and Norway.

² Ellerman A. Denny et. al. (2010) Pricing Carbon: the EU Emissions Trading Scheme, Cambridge University

³ Directive 2009/29/EC

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- and 100% in 2027. Operators at risk of **carbon leakage**⁴ will receive allowances for free up to their benchmark. The benchmark is based on the average 10% most efficient installations in a given sector. Benchmark values are finalized and in the process of being approved by the European Parliament and Council.
- The EU ETS will **cover new industries** (e.g. aluminium and part of the chemical industry) **and two new gases** (nitrous oxide and perfluorocarbons). The capture, transport and geological storage of all greenhouse gas emissions will also be covered. Small installations can be excluded if their emissions are subject to equivalent measures. The ETS will cover the aviation sector already from 2012 onwards and might be further extended, e.g. to maritime emissions by end-2011.
 - **International offset credits** will continue to be eligible for compliance under the EU ETS in phase 3. Also, they might not account for more than 50% of reduction efforts between 2008 and 2020 (around 1.6bn tCO₂) and certain projects **will be restricted** on qualitative grounds.⁵ The use of credits from Least Developed Countries (LDCs) or from countries with bilateral agreements would not be restricted. New sectors and new entrants will have a guaranteed minimum access to international offset credits of 4.5% of their verified emissions during the period 2013-2020. For the aviation sector, the minimum access will be 1.5%.

The European Commission is currently assessing the **need for additional rules to prevent market abuse**. The EU ETS has indeed been plagued by fraud cases in the area of value-added tax and registry phishing. However, interference with the market price through market manipulation or insider dealing has so far not been detected. One of the reasons for this could be the good degree of a liquidity that the system has achieved through allowing intermediaries and financial firms to participate in the trading of emission allowances from the very outset.

As the market volume is doubling each year, the Commission might nevertheless propose stricter rules on market participants. This could involve more reporting obligations, greater monitoring, clearing obligations for the OTC market, etc. However such rules do bring with it **economic costs and administrative burdens** which would mean giving up some of the cost-efficiency gains of an emissions trading system.

Pressure is also increasing on the EU to **raise its emission reduction ambitions** as companies will bank a large amount of surplus emission allowances into phase III. The Commission has made a study that moving to a higher target is economically feasible but companies warn of **consequences for their international competitiveness** if other major economies do not move along. In case other developed countries committed themselves to comparable emission reduction targets, the EU would revise some of those rules, in particular with respect to free allocation/carbon leakage, and consider the adoption of a higher reduction target. This could also involve a loosening of limits for the use of international emission credits.

⁴ According to the carbon leakage list, reviewed every 5 years from 2009, over 70% of EU ETS installations are exposed to carbon leakage, or the risk of shifting production abroad.

⁵ The EU will ban the use of credits from industrial gas projects (HFC23) from 1 May 2013. Further restrictions could follow under art. 11a(9) of the ETS Directive but nothing concrete is being proposed or discussed at this point in time.