

A possible auctioning scheme for the EU ETS after 2012?

Auctioning is an item often discussed. This paper tries to discuss various issues relating to the organisation of auctions to allocate CO₂/GHG allocations, as an evolution of the current ETS, where allocations are allocated by governments for free, essentially through grandfathering procedures. It is the result of several exchanges between EpE members.

Several issues have been identified.

1. **Two different auctioning models** could be used in the ETS¹: the ascending-bid auction and the sealed-bid auction. In the ascending-bid auction, everybody has the opportunity to publicly raise its bids and knows the bids of all participants. In the sealed-bid auction, each bidder submits to the auctioneer confidential bids in the form of demand schedules, which specify how many permits a bidder would be willing to buy at any given price. The auctioneer adds all these bids, and determines the clearing price such as the total of all bids at this price equals the total volume of quotas available for auction.
2. In the case of a sealed-bid auction, two variants exist: **uniform-price auction and pay-your-bid (or discriminatory) auction**. The difference is in the price that the winners pay. In the uniform-price auction, all bidders pay the clearing price, identical for everybody, and, in the pay-your-bid, each winner pays its own bid for the amount of units it gets. The determination of this basic principle has to be made once and for all at the outset of the system. In the latter case (pay-your-bid), the revenues from the auction are higher than in the former.
3. The main issue about a possible auctioning system in the EU ETS post 2012 is the **determination of the perimeter to which is should be applied**. Auctioning could be considered a possible system for such sectors that are less subject to international competition² and can pass the carbon price through to their own customers: power generation is in this case, such as air transportation. Globally, the EU Commission could consider applying the auction mechanism to the whole energy sector. However, in this case, it would have to consider some exceptions. For example, some sectors (heating sector) are in competition with actors without carbon constraint; some others (refining) are subject to international competition. In such cases, the auction system creates a real distortion of competition. Given these considerations, a likely scheme could assume that auctions would be organised only for energy (all forms with some exceptions or only power generation) and air transportation sectors (for the existing players and new entrants), manufacturing industry remaining subject to a system similar to the current ETS where allocations are free. However, all

¹ See C. Hepburn and al., Auctioning of EU ETS phase II allowances: how and why?, *Climate Policy* (6), 2006, 137-160.

² See 07-152-RA -Note allocation de quotas-v. 31 mai 07

sectors should be allowed to participate to the auctions, including installations that received free allocations³ in the case where they need additional quantities.

4. The issue of the **geographical perimeter** of the auction is also a relevant question. It could be envisaged at national level or European level. A European system seems to be preferable, as it would minimize the transaction costs. Moreover, most participants are now European-wide companies, and do manage their quotas on a consolidated basis.
5. **Quantities to be auctioned:** now that the European Union is committed to an objective of at least -20% in 2020, it should be possible for the Commission and the Member States to evaluate which share of the total emissions would be dedicated to energy sector, air traffic and other uses relevant for this auction system and the EU market in general. The publication in advance of the resulting volumes would give industry and energy sectors some indication on volumes to be allocated or auctioned. Volumes to be auctioned will be determined yearly.
6. **Frequency:** the SO₂ market in the USA is operating with one auction a year, in a satisfactory way. It could be suggested that 1 to 3 auctions a year would be likely to be a reasonable compromise between (i) the need to keep sufficient liquidity and flexibility in the market and (ii) the industrial need for more certainty. The auctions should be organised every year at the same date.
7. There may be a **legal issue** in different treatments of manufacturing industry getting free allocations and energy sector (and others) having to pay for the auctioned allocations. This should probably be further investigated.
8. **The proceeds** of such auction on the energy sector are likely to be considerable at European level: 1 200 (tbc) million tons CO₂ are emitted yearly by the power and aviation sectors; even at a price of 10€/tCO₂, this would result in total yearly proceeds of 12 billion €. As this total impact is close to 10 % (tbc) of the total revenues of the sectors, it should probably be introduced progressively. What should such moneys be used for? According to which procedures? Various possibilities seem to be envisaged. It would be suggested that they could be used mainly for R&D activities tending to reduce emissions (renewable energies, energy efficiency processes, CCS...) or for incentives for some deployment of promising clean technologies that need volume before they become competitive with the least cost options. However, the distribution of the auction revenues, even used for the R&D, could generate significant distortions among sectors or States.

³ The participation of everybody would also avoid the temptation of collusion when the auction is limited to a particular sector.