

## **Policy Options for Stimulating Reduction Investments under the EU ETS: A Legal and Economic Assessment**

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*Response to the questions posed by Secretary of State Mr. Atsma on June 1<sup>st</sup> in Groningen.*

### **EU ETS objectives and problem**

The substantial reduction of greenhouse gas emissions is the principal objective of the EU ETS. Sub-objectives include cost-effectiveness, economically efficient conditions, economic development and employment, integrity of the internal market and competition.

The 2009 ETS review added the sub-objective that more predictability of the ETS system should reinforce the carbon price signal necessary to trigger (green) investments. However, the Directive does not refer to a carbon price signal in its operative part. The price signal was therefore presumed to directly follow from the scarcity of allowances.

The ETS Directive does not rely on a price control system to incentivise investments. It relies on a quantity control mechanism paired with measures to ensure predictability.

In the period 2013-2020 scarcity and predictability is intended to be safeguarded by:

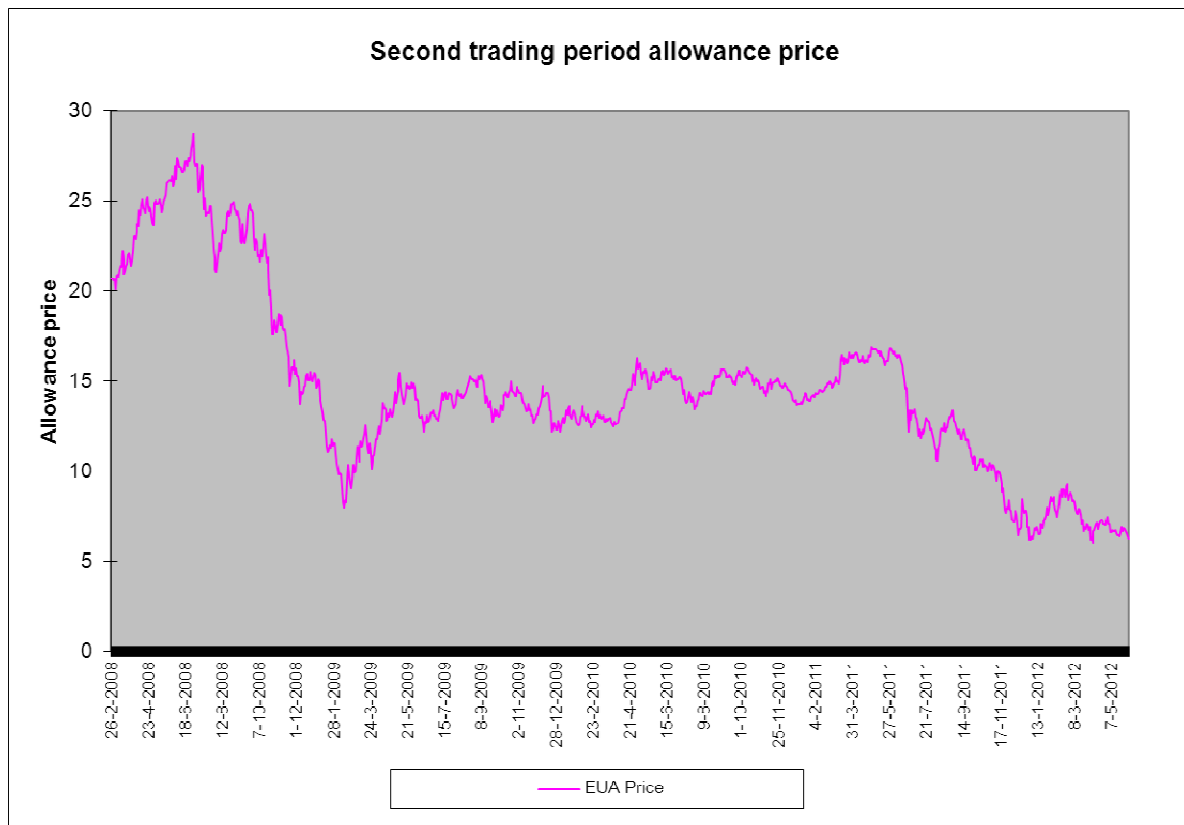
- allowance reduction by -1,74% annually;
- inclusion of other sectors (possibly maritime transport);
- increasing use of auctions (by 2020 up to 70%) and reduction of free allocation;
- predictability of the timing, sequencing and volume of auctions.

In the medium and long term scarcity in the system is expected to increase in light of the Dutch greenhouse gas reduction proposals of 40% below 1990 levels by 2030 and a desired reduction of 80-95% below 1990 levels by 2050 as stated by the European Council.

For the current period 2008-2012 such safeguards are missing. Scarcity was determined by the European Commission on the basis of verified emissions of the first trading phase and a national adjustment factor. As is the case for the third trading phase, also in the second trading phase the proper level of (green) investment is presumed to follow from the effect allowance scarcity has on the allowance price. A small deterioration of the economic situation triggered a disproportionally large decline of allowance prices (implying that the demand for allowances is very inelastic).

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Although the emission caps are being met and cost-effectiveness is reached, present prices of around 6,65 Euros per ton of CO<sub>2</sub> (13-06-2012) are unlikely to stimulate investments. This has spurred debate if governmental intervention is needed to ‘correct’ the low market price.

### Policy options

There are several policy options for the period 2013-2020 that target either the quantity of allowances on the market or the price of allowances.

### Targeting quantity

#### 1) Temporarily reducing supply: setting aside allowances

##### Rationale:

At too low market prices the legislator could decide to time-shift the supply of allowances until the allowance price has recovered. In this way allowance prices could be kept at sufficiently high levels to trigger investments.

##### Legal:

The Commission holds the opinion that a temporary set-aside is compatible with the legal framework. The Commission’s reasoning is not known to us. We found that under the Auctioning Regulation, Auction Platforms (not governments) may in exceptional circumstances decide to time-shift auctions. This option allows to time-shift auctions for very short periods. Significantly limiting the auction volume during a year for which an auction schedule is drafted is not possible because the predictability of the market requires a predetermined auction schedule.

##### Economic:

Even if a temporary set-aside would indeed be possible, it is doubtful if this would significantly help a low market price that is the result of a prolonged economic downturn. Operators know that there will be over-supply and low allowance prices at the end of the trading period. This can even have a negative impact upon investments.

## **2) Permanently reducing supply**

### **Rationale:**

Cancellation of allowances reduces the overall quantity of allowances on the market. This should lead to a higher allowance price and hence stimulate investment.

### **Legal:**

We expect it to be legally problematic under the current EU ETS Directive and to violate the legal confidence of covered entities.

### **Economic:**

Taking allowances off the market increases the overall scarcity of allowances and intensifies the overall reduction target of the EU ETS. Sharpening of the environmental objective can be desirable, particularly in light of the EU's desire to reduce emissions by 80-95% in 2050, but will also entail additional carbon costs for society.

Little is known about the price-demand relationship of allowances (data is only released after 5 years) but it appears that small changes in demand trigger significant changes in prices. If this relationship is not constant, an increased scarcity of allowances will lead to a more than proportional rise in the (average) allowance price and to increased price volatility. Increased price volatility is bad for investments because investors demand a risk premium for their investments. Hence decision makers should take investors' behaviour into account by aiming at a higher allowance price. This can only be done by even further tightening the cap.

## ***Targeting price***

Before presenting policy options it bears mentioning that targeting prices can have disadvantages. Targeting prices gives decision makers the possibility to impact the allowance market price which renders the ETS market susceptible to political considerations and will trigger lobbying that generates significant costs to society. Investments require a long-term perspective and unexpected changes in the investment trigger price contribute to business uncertainty.

## **1) EU Carbon tax:**

### **Rationale:**

An EU-wide tax could be levied on carbon emissions. Since the tax constitutes the price for CO<sub>2</sub>, there is a clear price signal that triggers investments.

### **Legal:**

A tax scheme would substitute the emissions trading system. In addition, unanimity in the Council would be needed to introduce such a tax scheme.

### **Economic:**

A carbon tax sends a clear price signal. It thereby can stimulate investments and raises money for the treasury. Taxes go against the sub-objective of low abatement costs since emission trading is then not possible anymore. This is economically very costly. The reaching of a predetermined level of carbon emissions becomes uncertain since it depends on the setting of the tax rate. Moreover, it constitutes a complete overhaul of EU climate policy.

## **2) Carbon Levy (as done in the UK)**

### **Rationale:**

The market price for CO<sub>2</sub> is too low to trigger investments in the UK power sector. A levy on the UK power sector will make up for the difference between the prevailing CO<sub>2</sub> market price and the envisaged investment trigger price of £16 (currently 19.90 Euros). This is envisaged to start in April 2013.

### **Legal:**

This measure goes beyond the Union's measures and is thus probably compatible with the EU ETS. By setting a higher carbon price for the power sector in the UK, these power companies will abate relatively more, even if their abatement costs are higher than those of other firms. This undermines the Directive's sub-objective of cost effectiveness.

### **Economic:**

The power sector is able to (and from an economic perspective should) pass on a large share of its additional carbon costs to consumers. It thereby sets the UK industry at a competitive disadvantage *vis à vis* competitors within the EU.

## **3) Price support scheme (as done in Australia)**

### **Rationale:**

Australia introduced a carbon tax of 23 Australian Dollars (18,28 Euros) to raise funds. These funds are used from July 2015- June 2018 to support a price floor at 15 AU\$ (11,92 Euros) (increasing by 4% annually). Government will buy any allowance offered below the price floor to bid up the price. To maintain a price ceiling at 20 AU\$ (15,89 Euros) (increasing by 5% annually) the government will sell an unlimited number of allowances.

### **Legal:**

If done at EU level it would require unanimity in the Council. It will also require amendments of the EU ETS framework.

### **Economic:**

Maintaining a price floor is costly since taxes distort product markets and hence entails costs to society.

## **4) Auction reserve price:**

### **Rationale:**

Post-2012 increasing amounts of allowances are supplied via auctions. A 'reserve price' can be set close to a price that is expected to stimulate investments. Allowances would only be sold by auction platforms if the auction clearing price is above the set reserve price. This sets a price floor for the supply of auctioned allowances that translates into a market allowance price to trigger investments. Unsold allowances could be cancelled.

**Legal:**

The current legislation uses a reserve price to prevent auction prices falling excessively *below* the allowance market price. Without legal changes this reserve price system cannot be extended into a reserve price system that is capable of keeping auction prices *above* the allowance market price. Cancelling of allowances also requires legal changes.

**Economic:**

Since the reserve price could be set for all four auction platforms (Germany, Poland, UK, EU wide) the flow of allowance supply is directly controlled, for example by the Commission. Even at times of economic downturn demand for allowances remains positive and allowance prices soon stabilise at the reserve price. Trading between operators with different abatement costs remains possible at all times, but it will shift the negotiating power towards sellers. In order to prevent oversupply at the end of the trading period, and hence depression of the allowance prices and investments, un-auctioned allowances must be taken off the market (either directly as a consequence of not being auctioned, or at a later point in time). Overall carbon costs to society increase because allowances are taken off the market.