Emission trading – why State aid is involved: NOx trading scheme

Melvin KÖNINGS, Directorate-General Competition, unit G-2

In January 2003 the Dutch authorities notified the Commission of a legal framework for an emission trading scheme for the atmospheric pollutant NOx. The measure was authorised under State aid notification rules by the Commission by decision dated 24 June 2003. As the legal framework sets up a trading mechanism with mostly private provisions, it is interesting to see how and why the State aid rules are applicable.

Description of the measure

The Netherlands has a national emission ceiling for NOx at 260 kilotons in 2010 (1). On the basis of this national target, the Dutch authorities have set a target of 55 kilotons of NOx emission by 2010 for its large industrial facilities. Present instruments, like emission permit requirements and legislation on emission limits, are not sufficient to meet this target for 2010 or could incur excessive compliance costs. Therefore the Dutch authorities developed a NOx credit trading regime for large industrial facilities, which will enter into force in 2004. The system will cover all industrial facilities with installed total thermal capacity above 20 MWth (approximately 250 large companies). In 2000, these companies emitted 90 kilotons of NOx.

The Dutch trading regime will be laid down in national legislation, which will include an uniform NOx emission standard for each industrial facility. The NOx emission standard for 2010 for large industrial facilities is defined by their absolute emission target of 55 kilotons in 2010 divided by their total estimated absolute energy consumption in 2010 (1100 PJ). Herewith, the NOx emission standard reflects the maximum allowable gram of NOx per unit of energy (50 g/GJ). This is a relative emission standard, instead of an absolute emission standard like an annual allowance or permit. The relative emission standard (called Performance Standard Rate) is flexible so if economic growth would lead to an increase in absolute emissions above expected calculation, the authorities can tighten the PSR, ensuring that the 2010 target can be achieved.

Various emission trading systems

The notified emission trading system differs from another basic variant of emissions trading systems, the so-called ‘cap and trade’ system, whereby an absolute ceiling is set for each facility. Under a ‘cap and trade’ system, emission allowances are allocated among facilities, e.g. by means of auction or ‘grandfathering’. In a cap-and-trade system, in which the emission ceiling assigned previously determines the permitted level of future emissions, new companies or existing companies which expand their activities must always first acquire the required quantity of allowances. This system is the basis of the EC proposal for a Directive of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (2).

Under the Dutch NOx emissions trading system, new companies or companies wishing to expand do not have to acquire allowances. They just need to comply with the relative emission standard. This feature ensures that new companies, among which are also non-Dutch companies operating within the geographical limits of the Netherlands, are able to participate in the scheme. The Dutch authorities therefore refer to their system as a ‘dynamic cap’ system, instead of a ‘cap and trade’ system. The advantage of a ‘cap and trade’ system is that there is certainty of the environmental outcome. The design of the trading system is fairly simple ensuring low administrative costs for the authorities and participants. In a ‘dynamic cap’ system, the environmental outcome is more uncer-

tian and the trading system can be rather complicated.

In the absence of Community provisions in the area of NOx emission trading, and without prejudice to the Commission’s right of initiative in proposing such provisions, it is for each Member State to formulate the policies, measures and instruments on the reduction of NOx emission.

The system is not voluntary; each facility must comply with the emission standard. Trading however, is optional. Emission reductions in the form of NOx credits will be offered in the “emission market” by facilities whose emissions are below the emission standard. A facility’s total NOx emission in a year, adjusted for any NOx credits bought or sold, must be compatible with the allowed emission, which is based on the uniform emission standard set for that year and the amount of energy used by that facility. Thus, the absolute allowed annual emission is calculated using the relative emission standard and the amount of energy used by the facility. The Dutch authorities check at the end of each year whether the facility has met the required absolute emission. In the course of each year NOx credits can be bought, sold, saved or lent for future periods. Each facility decides for itself whether, and to what extent, it is worthwhile exchanging emission reductions for the given year or a future year. When a facility would fail to meet its obligation, the Dutch authorities will put a penalty on the facility.

Existence of State aid in emission trading schemes

Can the notified measure be characterised as a State aid measure within the meaning of Article 87(1) of the EC Treaty? The Commission has already taken various decisions on emission or pollution trading schemes that are related to the notified scheme. In these systems a variety of tradable emission or pollution documents are used, like quotas, allowances, certificates and credits. The Commission considers the tradable emission documents as intangible assets provided by the authorities to the recipients. As regards State aid assessment, there are two kinds of trade systems:

(1) Systems where a tradable emission or pollution document is considered as intangible asset representing a market value which the authorities could have sold or auctioned as well, leading to foregone revenues (or a loss of state resources), hence State aid within the meaning of Article 87(1) of the EC Treaty (1);

(2) Systems where a tradable emission or pollution document is considered as authorised proof of a certain production that can not be sold or auctioned to the recipient, hence no foregone revenues, therefore no state resources and no State aid within the meaning of Article 87(1) of the EC Treaty (2).

The difference between the two systems is whether the public authorities have an alternative option to sell or auction the intangible asset to the recipient. In the first kind of system there is a rationale for the public authorities to sell or auction the emission or pollution document to the producer of that emission or pollution, as the tradable emission or pollution document will give him the right to emit or pollute (directly or indirectly). In the second kind of system the tradable emission or pollution document has no value to the recipient in relationship to the state and it will merely serve as an authorised proof of certain production or emission. Hence, there is no rationale for the public authorities to sell or auction it to the producer of that emission or pollution document (3).

The fact that there will be a market for trading emission or pollution documents is a sign of the value of the asset being allocated. The fact that undertakings will have to have expenses in order to realise the value of the tradable emission or pollution documents does not change the existence of an advantage, but can be considered a positive element in the assessment of the compatibility of the scheme concerned.

The emission scheme notified by the Dutch authorities is based on tradable emission credits. These credits do not represent direct permits (or allowances) as in other emission schemes, nor do they solely represent an authorised proof. The annual allowed absolute emission per facility will be calculated on the basis of the general PSR and the energy use of that facility in the year at hand. When the producer would exceed this absolute emission ceiling, he has the obligation to buy NOx credits, to borrow the credits of his obligation in the following year or, ultimately, he is fined. The

---


(3) The fact that a tradable emission or pollution document has a value to the recipient in relationship to third parties (like the distributors or consumers in green electricity certificates) is of other importance in this respect.
Tradable NOx credits will thus contribute directly to the absolute emission standard imposed by the state. Therefore, the Commission considers the notified NOx emission trade system comparable to a direct NOx emission allowance allocation.

Secondly, it is the producer himself who is obliged to meet his emission standard. The producer has an incentive to pay for the tradable emission documents, as long as the price of that tradable emission document is lower than the costs of reducing his own emission or when the price of that tradable emission document is lower than the penalty. In the notified scheme the producer emitting NOx is penalised when he does not meet his emission standard. The same producer will also be a recipient of tradable emission documents (NOx credits). The issued tradable emission document to the recipient will therefore represent a value as regards his obligation to meet his absolute emission ceiling imposed by the state.

Thirdly, the Dutch authorities do have an option to sell or auction the emission standards. As the emission of NOx is an environmentally harmful activity (pollution) it would be possible for the State to receive revenues through a permit system or for instance through an auction of emission allowances. The Dutch authorities provide the NOx credits as free intangible assets, thus suffering foregone revenues. Therefore, these private systems constitute State resources within the meaning of Article 87(1) of the EC Treaty.

The beneficiaries of the scheme are the recipients of the NOx credits, which are a selective groups of large industrial undertakings, who are active in trade between Member States. Therefore the Commission has decided that the notified scheme constitutes State aid within the meaning of Article 87(1) of the EC Treaty.

**Compliance with the Treaty**

The Commission has assessed the notified NOx emission trading scheme directly under Article 87(3)(c) of the EC Treaty (the Community guidelines on state aid for environmental protection (1), usually used for environmental measures do not provide clear criteria for emission trading of air pollutants).

The Commission acknowledges that the reduction of emission of atmospheric pollutants is a priority of environmental policy of the European Union and the Dutch initiative is an additional effort before rules at the Community level are established. This scheme is the first multisectoral emission trading scheme in the European Union concerning conventional air pollution and it will provide valuable insight in the functioning of a NOx emission trading market for the benefit of any later initiatives at EU or at national level. The notified scheme rewards undertakings going beyond existing standards and achieves a net environmental benefit.

In order to capitalise the potential aid from the free allocation of NOx credits, undertakings concerned have to reduce emissions further than their target levels. This can be considered as a counterpart, in line with the spirit of the aforementioned environmental guidelines. Therefore the Commission decided that the aid can be authorised under Article 87(3)(c) of the EC Treaty.

\footnote{(1) OJ C 37, 3.2.2001, p. 3.}

Number 3 — Autumn 2003 79