

The convergence of environmental and capital markets: another step

After a decade of debate within the environmental movement on markets versus command-and-control there's some good news for the private sector. The European Commission has embraced capitalism as a climate protection policy tool.

On 23 October, the Commission released draft rules for a European Union carbon dioxide (CO₂) emissions trading system. According to Environment Commissioner Margot Wallström, "the emissions trading system will be an important cornerstone in our strategy to reduce emissions in the most cost-effective way". She accurately emphasised that "the proposal on emissions trading represents a major innovation in environmental policy in Europe".

This is a bold and intelligent proposal that resonates with clarity. It recognises the need to start with a limited pilot programme and expand coverage over time. Wallström explicitly acknowledged the guiding principle of any demonstration project, "...as a first step we must establish confidence in a system that is shown to work, with adequate controls".

The salient features of the proposal for the initial period are presented in Table I. It can gen-

erally be described as a greenhouse gas (GHG) emissions trading system. The first phase will begin in 2005 and conclude at the end of 2007. It will include only CO₂ emissions from limited industrial sectors in an allowance-based programme. Individual facilities will be granted permits that require each industrial unit to surrender allowances annually that are equal to its verified emissions and to monitor, verify and report its emissions. Permits are non-transferable but each facility will be allocated transferable allowances, or the right to emit a designated quantity of metric tonnes of CO₂.

Banking of allowances will be allowed during the initial three-year period. The traded instruments will have a lifetime not extending beyond the three-year period. Initial penalties for non-compliance will be set at lower levels than those imposed in the subsequent budget period (2008-12). The penalty for each excess tonne emitted in the first phase will be the higher of €50 (\$45) or twice the average market price of allowances during a predetermined period. Initially, there will be no legally binding targets limiting emissions by each of the member states. The proposal indicates that facilities will be granted allowances free of charge during

the initial period. This is meant to minimise the competitive impacts of different allocation mechanisms among the member states.

Member states will establish national registries. Allowance tracking will be modelled after the allowance tracking system in the US sulphur dioxide (SO₂) programme. Verification will be either by "competent authorities" or an "independent verifier" at the discretion of the member state. The bearer of verification costs will also be determined by the member state. The allowances to cover a prior year's emissions must be surrendered by 31 March the following year.

Member states will periodically be required to report on the progress of the pilot. Issues to be addressed include activities such as allocation experience, monitoring and verification.

At the outset, the sectors to be covered range from power generation to manufacturing. Specifically excluded are direct emissions from the chemical industry (except from power and heat generation facilities of greater than 20MW) and waste management. The rationale for the former is that emissions in that sector are small and the large number of installations would add to the "administrative burden" of the programme. The rationale for the latter is the inability to measure the carbon content of incinerated matter accurately.

The proposal is purposely silent on market organisation. It correctly supposes that the structures will arise as the programme is delineated. Furthermore, it relies on the private sector to drive solutions in this area.

There are other exclusions that are worth mentioning. The initial proposal specifically excludes credit for project-based mitigation efforts. The proposal is silent on crediting of sequestration in soils and forests as well as credits from renewable energy generated from the use of landfill methane. The commission feels that the enormity of the challenge requires that initially it will exclude project-based credits. However, project-based activities, especially those associated with Joint Implementation (JI) and the Clean Development Mechanism (CDM), are specifically mentioned as being desirable to include in the future.

The decision of the Commission has been widely praised by those who believe in market-based solutions to environmental constraints. But whether this programme will provide an accurate indication of the cost of reducing GHGs is a far more tricky and complicated question. Its self-imposed limit to initially achieve reductions in GHGs through changes in industrial activity alone and the exclusion of five GHGs may send very inappropriate price signals. Furthermore, while the Commission's motivations are very rational about the exclusion of JI and the CDM at this stage, this sends a less than desirable message to developing countries and economies in transition. There is still hope. The Commission has explicitly indicated that by 31 December 2004 it might make a proposal to include other activities and other gases.

This article is dedicated to the memory of Steve Goldstein. He will be sorely missed by friends and family. I would like to thank Michael Walsh, Alice LeBlanc and Rafael Marques for their assistance in the preparation of this article

Table I. Salient features of the initial phase of the European Union GHG emissions trading proposal

GHGs covered	Carbon dioxide only, expressed in tonnes of CO ₂ equivalent
Trading period	Beginning of 2005 to end of 2007
Standards	Individual facilities will be granted permits that require the unit to surrender annually allowances that are equal to its emissions and to monitor, verify and report its emissions. Banking of allowances will be allowed during the three-year period. Allowances will have a lifetime not extending beyond the first phase and will be granted free of charge. Each member state may allocate its allowances based on objective and transparent criteria
Targeted activities	Power and heat generation for units of more than 20MW (with the exception of hazardous or municipal waste installations), coke ovens, mineral oil refineries, production and processing of ferrous metals, mineral industry, and industrial plants for the production of pulp from timber and paper and board with a production capacity exceeding 20 tonnes/day
Registry	Member states will establish national registries
Verification protocols	Performed either by "competent authorities" or an "independent verifier" at the discretion of the member state
Non-compliance penalties	Per-tonne penalties for excess emissions will be the higher of €50 or twice the average market price of allowances during a predetermined period
Programme review	By 31 December 2004, the Commission may make a proposal for the inclusion of other activities and gases. Another review may also be carried by 30 June 2006