

Emissions Trading - Promoting Climate Protection via a Market Mechanism

At the 1997 Kyoto Earth Summit in Japan, dozens of industrialized countries committed themselves to significantly reducing their emissions of gases that affect climate change, particularly carbon dioxide (CO₂).



Of all the measures put in place to achieve this goal, perhaps the most significant is the pioneering European Union Emissions Trading Scheme (EU ETS), which experts believe will play a key role in promoting international climate protection.

Emissions trading involves the exchange of emissions certificates. Operators of large energy production plants or energy-intensive industrial companies are assigned a predetermined number of emissions certificates by their governments. These initial certificates are free, and authorize the companies to emit a specific amount of CO₂. If a company exceeds its allowance, it must buy in additional certificates.

When a company reduces its emissions, it can sell its excess certificates for profit. Companies face penalties when they do not acquire enough certificates to balance out the CO₂ they have emitted.

In addition to the emissions certificates allocated by the state, companies can also make use of other "flexible mechanisms." If they invest in emissions reduction projects in other countries, for example, they receive additional emissions allowances, which are the equivalent of emissions certificates. These can also be traded.

The use of these market mechanisms ensures that the reductions in emissions are made where the costs of reduction are lowest. Thus, for all companies involved, emissions trading makes both ecological and economic sense.

Emissions trading in Europe

Officially, international emissions trading as agreed in the Kyoto Protocol does not commence until 2008, but various regional and national emissions trading initiatives have already begun, for example in the USA and in some European countries, including the Netherlands, Great Britain, and Denmark. The largest and most comprehensive model of emissions trading, however, was initiated by the European Union (EU) in 2005: the EU Emissions Trading Scheme (EU ETS).

The EU ETS has defined two compliance periods for the 25 EU member states: a three-year test phase from 2005 to 2007, and what is known as the Kyoto Phase from 2008 to 2012. For both phases, each member state must draw up a national allocation plan, which details all emissions allowances and how they are allocated to the country's relevant economic macro-sectors and installations.

Each EU member state allocates the participating sectors and companies a defined number of emissions certificates, called EU allowances (EUAs) on an annual basis. Each certificate allows the company to emit one ton of CO₂.

Some 12,000 installations across Europe with a combined trading volume of 1,200 million tons of CO₂ are involved in the scheme. The sectors involved include energy and electricity producers, and energy-intensive industrial installations (e.g., steel, cement, paper works, ceramic, and brick manufacturers).

Market-based approach

Thus companies must decide whether it is financially viable to buy in additional certificates or whether it would not be more cost-effective, particularly in the long term, to modernize their installations by incorporating technology designed to reduce emissions, and then to sell their excess certificates.

Emissions trading is therefore an instrument that creates incentives for environmentally friendly investment and continued development of renewable energies, and is intended to achieve climate protection at the lowest-possible cost. Rather than relying on the state to impose inflexible regulation and prohibitions, emissions trading allows companies to pursue state-imposed targets however they see fit.

"How trading functions is then dependent on market participants and liquidity," says Armin Sandhoevel, coordinator of Allianz's Climate Core Group

If emissions trading proves to be effective, other industries are expected to be incorporated into the scheme from 2008. "So, in terms of risk management, companies should ensure that they are well prepared for emissions trading," warns Sandhoevel. "I really would advise against adopting a 'wait-and-see' attitude."

The future of emissions trading

Although there is broad agreement that emissions trading can help slow climate change, the long-term future of the concept is still uncertain.

Establishing a viable, long-term climate policy that reaches beyond 2012 (the post-Kyoto phase) and includes nations outside of the EU is critical. Only through long-term, global emissions trading schemes can Europe avoid the competitive disadvantage of having higher emissions costs than other economic areas.

Therefore, international negotiations that include nations outside of the EU are important. Industrial countries are currently drafting their contributions to Article 3.9 of the Kyoto Protocol, which will determine the shape of international climate change regulation

process after the 1997 Protocol expires. A roadmap for the next steps is to be drawn up at the International Climate Conference in Nairobi in mid-November 2006.

It remains to be seen how emissions trading will be embraced by the international community as an instrument for combating climate change within and outside the EU.

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