

## The EU Emissions Trading Scheme – Issues and Challenges

*On 1 January 2005 the European Union's Emissions Trading Scheme will be launched. While emissions trading is, in principle, widely considered to be an effective and cost-efficient way of achieving compliance with countries' commitments under the Kyoto Protocol, the National Allocation Plans which were prepared and recently published by EU member states have come under heavy fire.*

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### Greenhouse Gas Emissions Trading in the European Union – Background and Implementation of a “New” Climate Policy Instrument

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The history of the EU emissions trading scheme (EU ETS) is quite astonishing.<sup>1</sup> Its roots can be found in the Kyoto Protocol (1997) of the UN Framework Convention on Climate Change (UNFCCC). The Kyoto Protocol defines absolute, binding emissions targets for 38 so-called “Annex-B-countries” which essentially are the industrialised countries and some countries in transition. These targets apply to the “commitment period” 2008-2012. In order to reduce compliance costs, “flexible mechanisms” have been defined – emissions trading at country level and the project-based mechanisms Joint Implementation (JI) and Clean Development Mechanism (CDM). Interestingly, the European Union did not support those mechanisms at the international negotiations. This was due to a somewhat ideological conflict that had started in the first years of

international climate policy. The USA was the herald of efficiency and markets while the EU was supporting an approach based on harmonised policies and measures. The EU argued that mitigation efforts should take place at home. However, after the Kyoto agreement was reached, European policymakers turned around to embrace the concept of emissions trading. The first wake-up call for EU negotiators was the failure of the 6th Conference of the Parties to the UNFCCC in The Hague in late 2000. It was generally ascribed to stubbornness on the part of the environment ministers of France and Germany that scuppered a deal with the USA brokered by the UK. The second wake-up call was US president Bush's rejection of the Kyoto Protocol. Thus the EU realised that without accepting market mechanisms, the Protocol would never enter into force. On the domestic side, a decisive catalyst

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<sup>1</sup> Emissions trading itself is not a new instrument. It has been practiced in the USA on regional pollutants SO<sub>2</sub> and NO<sub>x</sub> since the mid-1990s. Denmark and the United Kingdom established CO<sub>2</sub> emissions trading schemes with a relatively limited sectoral/geographical scope.

was the fact that the Commission had become wary of the fiscal approach to greenhouse gas reduction as, since 1992, all attempts to introduce a carbon tax had failed due to consistent opposition from the UK. As no other policy instrument was delivering reductions and CO<sub>2</sub> emissions were increasing in the EU in the late 1990s,<sup>2</sup> the European Commission published a Green Book on CO<sub>2</sub> emissions trading in March 2000. The Commission's call for inputs led to a strong response from emitters, a lesser one from NGOs. Very soon the Commission supplemented the ongoing consultation process in the Green Paper with a multi-stakeholder working group in the European Climate Change Programme. This group met 10 times between July 2000 and May 2001 and concluded its work with the clear recommendation that European trading in GHG permits should be established "as soon as practicable". Astonishingly, the group – bringing together diverse interests with about 30 representatives from some member states, industry and environmental pressure groups – achieved a high degree of consensus.<sup>3</sup> In October 2001 the European Commission advanced the debate to a new level by adopting a proposal for a directive on EU-wide trading in GHG permits. The proposal's main points survived all further debates:

- mandatory introduction of trading in GHG permits in all EU Member States as of 2005
- coverage of power and heat generation, iron and steel, oil refining, pulp and paper, cement and other building materials
- coverage of CO<sub>2</sub> emissions only.

From 2001 onwards, emitters were thus getting the impression that they would face a carbon-constrained future even if they still had the hope that the initial allocation of permits would leave them on the safe side. The unsophisticated attempts of German industry to block the scheme failed and in late 2002 the Council of ministers presented its position. After an astonishingly quick resolution of differences with the EU Parliament, the directive was published in July 2003 and became law in October. The trading scheme will start on January 1, 2005. From a laggard in the use of market mechanisms, the EU thus became a world leader in just three years by implementing the world's most comprehensive emissions trading scheme covering

more than 10,000 installations in 25 member states. The international climate policy regime, currently struggling due to the withdrawal of the USA from the Kyoto Protocol and the still outstanding ratification by Russia, urgently needs such political signals. The EU ETS might become a nucleus for an expanding trading scheme at company level worldwide. Emitters and governments of major countries such as Canada and Japan and Australia are already thinking about linking their planned trading programmes to the EU ETS.

Strengthening the international climate policy regime beyond 2012 is necessary in order to reach the deep, long-term emissions reductions needed to stabilise greenhouse gas concentrations. Opponents of stringent climate policies usually argue that emissions reduction is too costly. The mitigation of greenhouse gas emissions does indeed cause costs. However, the costs and damages resulting from the negative impacts of climate change also have to be considered. Re-insurance company Swiss Re recently stated that, "the economic costs of natural disasters, aggravated by global warming [...] threaten to double to \$ 150 billion/year in 2014, hitting insurers with \$ 30-40 billion in claims, or the equivalent of one World Trade Centre attack annually".<sup>4</sup> Only countries that have accumulated experience in harnessing all low-cost options for emissions mitigation will be able to bend the emissions curve downwards at manageable costs in the long run. Here the EU has also made a remarkable step to link the EU ETS with the flexible mechanisms of the Kyoto Protocol. In April 2004, the EU Parliament agreed on a legal text, the so-called "linking directive", that allows the use of CDM credits from January 2005 without any limit. The survival of the Kyoto mechanisms is thus guaranteed even without the entry into force of the Kyoto Protocol and the linking directive is the first large-scale incentive for private companies to participate in CDM projects.

#### Crucial Elements at the Political Level

The allocation of emission entitlements, the "allowances", is undoubtedly the most relevant issue in the implementation of the EU ETS. It is financially relevant for all the installations covered. Each stake-

<sup>2</sup> EEA: Annual European Community greenhouse gas inventory 1990-2001 and inventory report 2003 (Final draft), Technical Report, No. 95, Submission to the UNFCCC Secretariat, European Energy Agency, April 2003.

<sup>3</sup> P. Zapfel, M. Vainio: Pathways to European Greenhouse Gas Emissions Trading: History and Misconceptions, FEEM Working Paper, No. 85, Milan 2002.

<sup>4</sup> Thomas Atkins: Insurer warns of global warming catastrophe threat, <http://www.commondreams.org/headlines04/0303-07.htm>. Note that this increase is not only due to negative effects of climate change, but also to changes in global population, characteristics and quantity of modern infrastructure, etc.

<sup>5</sup> For a detailed analysis of the NAPs see Regina Betz, Wolfgang Eichhammer, Joachim Schleich: Designing National Allocation Plans for EU emissions trading – a first analysis of the outcome, forthcoming in Energy & Environment, 2004.

holder strives to maximise its allocation of allowances. Consequently, national allocation plans (NAP) are an extremely sensitive issue in political terms. The emissions trading directive only provides broad criteria for member states concerning how to establish allocation plans. Consequently, intense lobbying and political struggles could be observed in nearly all the EU member states. In most cases, those efforts resulted in lax emissions targets, complex special allocations to powerful interest groups and in some cases even in an over-allocation compared to actual emissions.<sup>5</sup> Especially the accession countries hope to profit from the reductions made during economic transition in the 1990s. In the coming weeks and months, the EU Commission, which has to approve NAPs, will scrutinise them and rumours indicate that they will not pass unscathed. It might be questioned, however, whether the Commission will be able to enforce a considerably stricter allocation. Generally, the demand for allowances will be shifted from large companies that had lobbying clout to smaller ones that were unable to push through special allocations. Moreover, demand for CDM and JI will shift from the private sector to governments because a lenient allocation for industry has to be made up for elsewhere. Current disputes and concerns about distortions of competition between member states indicate that it would be advisable to conduct a harmonised allocation process for future periods of the EU ETS, even if this means that a cumbersome negotiation process will have to be completed at the EU level.

Another relevant aspect is the implementation procedure within member states as the time scale is quite ambitious. Some member states such as Spain and Greece did not manage to prepare a draft of their NAPs. But even the more advanced ones are struggling. In Germany, for example, a working group for emissions trading<sup>6</sup> had been established as early as 2000. However, the complexity of allocation rules resulting from intense lobbying in the past months as well as the famous German thoroughness made it necessary to establish a federal emissions trading office<sup>7</sup> with a staff of 80-110 employees. However, this office is still being constituted and has not yet officially started its work. Thus, there is currently no government support for the installations covered in their preparations for emissions trading (see below). The

problem seems to be that the legal basis is still missing. This deficit can be expected to be resolved in the coming weeks. A supposedly final debate in the lower house of Parliament on the NAP law made several changes to the NAP draft.

#### **Critical Elements at the Company Level**

According to the preliminary, and still informal, provisions of the German government, operators of installations need to submit their applications for the permission of CO<sub>2</sub> emissions and for the allocation of allowances by August 15 this year. Those applications have to be accompanied by a verified emissions inventory for the years 2000 to 2002. If an operator intends to claim extra allowances for early action measures, electricity production in combined heat and power installations, process emissions or cases of hardship, he needs to submit proof of those special circumstances as well. All this causes a lot of time and effort – since not only paperwork has to be conducted but also old receipts and confirmations have to be provided. Larger companies can be expected to manage this easily – either by putting their own employees onto those tasks or by hiring external consultants. Small and medium sized companies, however, might have to struggle to complete the above-named tasks in time. It might be assumed that many of them simply did not have the capacity to follow the stormy political process in Germany in the past months in detail. Several conversations with operators have also revealed that some of them do not even know about the upcoming tasks and deadlines yet. The HWWA is currently conducting an empirical study on the transaction costs that arise for the installations/companies covered by the EU emissions trading scheme. The results are expected for early August.

#### **Conclusions**

The EU ETS is a grandiose experiment that could pave the way for the EU becoming a pioneer in market mechanisms to counter global change. The speed of its implementation has surprised seasoned observers of Brussels decision processes. However, a timid approach to the national allocation of allowances could reduce the credibility of the instrument and prevent learning that will be crucial for later, deep cuts in greenhouse gas emissions. Moreover, it will reduce the private sector acquisition of emission credits from the CDM which is necessary to embark on a global strategy for emissions reduction. A short-term bow to powerful interest groups from sunset industries risks shutting off the way forward for the sunrise industries that will grow on mitigating global climate change.

<sup>5</sup> Arbeitsgruppe Emissionshandel, AGE. Also see [www.bmu.de/emissionshandel](http://www.bmu.de/emissionshandel).

<sup>7</sup> Deutsche Emissionshandelsstelle, DEHST. Also see [www.umwelt.bundesamt.de](http://www.umwelt.bundesamt.de).