

The EU ETS Review and its Implications for the Carbon Market

The revision of the EU Emissions Trading Directive is in full swing. More sectors and gases will be included and the overall cap will be tightened. Yet one crucial feature of its final design will depend on the outcome of the parallel post-Kyoto negotiations: The use of project-based carbon credits. **Stefan Kleeberg** and **Frieder Frasch** outline what industry and carbon market participants can expect.



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In January 2008, the EU Commission presented a proposal for the review of the European Emission Trading Scheme (EU ETS). The review shall improve the effectiveness of the EU ETS and adapt it to the needs of the post-2012 period. Moreover, the Commission wants to provide a long-term vision for the years to come. Such a clear perspective is crucial to guarantee a functional market for all participants. The review is carried out as a co-decision, i.e. based on a legislative proposal of the EU Commission, the European Parliament (EP) and the EU Council have to agree on the terms of the legislation. During the last months, the EU Parliament discussed its position and the Environment Committee voted on a position that is very similar to the proposal of the Commission. In the months to come, the Council and the EP need to align their positions for the climate package to pass. Many aspects remain controversial including, amongst others, the percentage to be auctioned to European operators and the use of the auctioning revenues, the avoidance of

leakage effects as well as the limitation on the use of credits from the Clean Development Mechanism (CDM) and Joint Implementation (JI). Some of the national ministers of the Council have already stated that they would not agree on legislation that could harm their domestic economies. This article outlines the expected changes proposed in the review of the emissions trading directive and discusses their possible effects.

More Sectors and Gases to be Included

With the start of the third trading period, the EU ETS will be extended to further sectors. Already as of 2012, all flights departing from and arriving in the EU will be included in the EU ETS. Aircraft operators will receive additional aviation allowances that can only be used in this sector. The cap of the sector is 97% of the base period from 2004-2006 in 2012 and will be reduced to 95% from 2013 onwards. Aircraft operators can use regular EUAs without limitation. The use of Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs) will be in line with the industrial sector. The inclusion of the aviation sector in the EU ETS will add to the overall shortage of allowances in the third trading period. Apart from this, additional greenhouse gases (GHG) from further sectors

will be included. Carbon dioxide (CO₂) emissions from petrochemicals, ammonia and aluminum as well as certain nitrous oxide (N₂O) and perfluorocarbon emissions will also fall under the scheme.

Caps to be Tightened

The European Commission calls for stricter caps than in the second period. This will lead to a massive shortage of allowances in the third period. The current proposal provides for two different scenarios: Under the first, the international climate negotiations at UN level do not reach a 'satisfactory' outcome, and the emissions will be decreased to 1.7 billion tons in 2020 (-20%). The second scenario assumes that a post-Kyoto agreement is reached in December 2009 in Copenhagen and that the EU reduction target is increased to 30%.

These two scenarios are necessary as the EU committed itself to the so called 20-20-20 goal (20% emission reduction compared to 1990 and 20% renewables share in total energy demand by 2020) at the 2007 Spring Summit. Furthermore, the EU pro-mised to increase the European emission reduction target from 20% to 30% if the international settlement results in ambitious climate goals. By doing so, the EU seeks to strengthen its position in the international climate negotiations that are scheduled to end with an agreement in December 2009. The resulting price level will induce the necessary emission abatement measures or the reduction target of 20% or 30% respectively. The rationale of the two scenarios is to give the business sector a clear long-term perspective of what to expect in the years to come.

Allowances to be Auctioned

If the EU ETS review is passed as now proposed, power providers would most likely no longer get a free allocation as of 2013. Industrial operators and aviation would receive a free allocation of 85% that will eventually decrease to 0%. This provision will be discussed intensively in Brussels. Until an



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international agreement is reached that would provide a level playing field for industrial players, measures to avoid carbon leakage can be taken. Companies with competitors outside the EU ETS can hope to receive free allocations beyond the above-mentioned percentages in order to avoid market distortion. Especially the metal and chemical industries are looking for such regulation as they will not be able to pass on the cost of carbon to their customers like other industries.

CDM and JI to be Restricted

In the third period, CERs from CDM and ERUs from JI projects can still be used. Their use is an important element of the EU ETS for several reasons. First, it offers an alternative currency that can be used by operators. Second, it allows companies to reduce their compliance costs, as CERs are traded at a discount. Third, the use of CDM and JI effectively links the EU ETS with the global carbon market and thus has a stabilizing effect. In the second trading period, the use of CDM and JI was limited to about 12% of the overall EUA allocation, allowing for the use of about 1.4 billion CERs.

At the moment, it seems that this option will be restricted by the European legislators. Operators may be able to use their quota of the second trading period in the second trading period and use the remainder (in absolute numbers) after 2012. The alternative would be to restrict the use of CDM and JI between 2008 and 2012 to 6.5% of their 2005 emissions in order to be able to use another quota of 4% (of 2005 emissions) in the third trading period. If an international agreement is reached and the emission reduction target is increased, the allowed use of CDM and JI will be increased to 50% of the additional reduction effort. The exact figures will most likely change in the course of the European negotiations that will take place during the coming months. However, it is almost certain that the European Union will decrease the flexibility of its main instrument to curb global greenhouse gas emissions. Another aspect that adds to the current uncertainty of the



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carbon industry is the criterion of 'high quality'. Although this term was initially introduced by legislators in order to ensure the additionality of the CDM, it is - in its currently somewhat vague wording - questionable if it can provide the intended security project developers and operators need to engage in projects.

What Effects can be Expected?

During the last few years, the emissions in the EU have been more or less stable. Therefore, the reduction path that we are about to take will exert pressure on operators. Compared to 2005, the emissions in the compliance market have to decrease by one fifth by 2020. Considering the high growth rates in some of the new member states and the heavy reliance on coal in some member countries, this is an ambitious goal. It can only be reached in combination with the other targets of the EU energy package, i.e. continuous improvements in energy efficiency and a rising share of renewables in total primary energy demand. The expected recession due to the current credit crisis will most likely lead to lower emissions by 2010. However, planned investments in new and less CO₂ intensive technologies may be put on hold. Nevertheless, even the latest analyses anticipate higher EUA prices until 2012. Even

the lowest expectations predict an EUA price of about EUR 35 in 2012. It is clear that prices will soar even more when the reduction target is increased. Overall, a shortfall in EUAs can be expected in the third trading period. This means that prices can only rise ceteris paribus, because banking of EUAs from the second period during the third period is allowed. The auctioning of allowances will impose a heavy burden on the ETS sector. It will not necessarily increase the price of carbon in the short term. In fact, it is to be expected that carbon will reach the marginal cost of abatement in the EU more quickly because everybody has to enter the market. As there won't be any windfall profits to subsidize old, inefficient power plants, some utilities will have a closer look at the full costs of their installations. As a consequence, older and inefficient plants will be retired more quickly, which could lead to a squeeze in power supply, thus increasing power prices. This will also depend on the rate at which old plants can be replaced by new, less carbon-intensive ones.

How the EU will address possible leakage effects will obviously have a huge impact on the compliance industries. Unlike utilities, industrial players face fierce competition from countries where emission regulation is less strict or where no emission schemes are

currently in place. This is especially the case for basic industries that produce ferrous metal, chemicals, mineral, and other products. These sectors could be displaced to other regions of the world. Another example is the aviation sector, where it is very likely that central hubs will be relocated to countries where no emission trading scheme is in place. This has to be considered carefully.

As mentioned above, the use of CDM and JI in the third trading period will most likely be sharply reduced. For the industries involved, this harsh change of course is a bitter pill to swallow. For years, project developers and operators under the EU ETS have been working on CDM and JI projects under the assumption that this flexible mechanism would be continued. It has been a success story that will have mitigated more than 1.5 billion tons of greenhouse gases by 2012. This change will of course cease emission reduction efforts in developing countries and it will increase the cost of compliance for European operators. Presumably new CDM and JI projects will no longer be initiated because owners can not be sure that they will find buyers for their credits after 2012. With only two to three vintages to profit from, it will be hard to design profitable projects.

The 'high quality' criterion is another uncertainty pending over the industry, as it provides no clarity which projects will be accepted. There are attempts to make the acceptance dependent on the legal status of the host country, (e.g. whether it has ratified a post-Kyoto agreement), the technologies in question (e.g. renewables and energy efficiency), or adherence to certain standards. Depending on the interpretation of 'high quality', the amount of CERs that can be used can vary by 30%.

Obviously, the supply of credits from CDM and JI will generally have an effect on the price level. The UN forecasts the supply to be 1.5 billion tons until 2012. Considering that those projects will keep delivering CERs after 2012, this should be enough to meet the demand from the EU ETS, as the demand

of about 1.6 billion tons can be distributed between the second and third trading period. There is also demand from the governmental sector, but it is not exactly clear to what extent governments will keep up their purchasing programs in times of recession. During the last few months, it became obvious that more and more countries have started negotiating AAU deals amongst themselves.

What Strategies can be Reasonable?

Operators subject to the EU Emissions Trading Scheme have to cope with uncertainty in the months to come. If they have not taken advantage of the high spread levels between EUAs and CERs this summer, it seems recommendable to focus on internal abatement measures and to calculate at what price levels they become cost-effective. In the long term, we expect prices to rise continually and each mitigated ton of greenhouse gases will save money in the years to come. As soon as the European legislation is in place, operators need to adapt their carbon strategies. In many cases, at least in Germany, an expedient trading strategy could be to purchase CERs either on a primary or secondary basis and to use the full quota during the second trading period. A surplus of certificates could then be banked into the third trading period. Companies who did use the attractive spreads should earmark their profit and use it to hedge their expected positions in the third trading period of the EU ETS.

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