

# Global Impact of CO<sub>2</sub> Emission Credits Trading in Europe

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Acknowledging that industrial and commercial activities create excessive amounts of so-called Green House Gases (GHG), and accepting predictions that if this continued unchecked the world would face the negative effects of 'global-warming' on an increasing scale, 188 countries have signed the United Nations Framework Convention on Climate Change (UNFCCC).

Under the umbrella of the UNFCCC the Kyoto Protocol was negotiated to put in place a programme of reductions in GHG emissions. Nations and regions were allocated emission reduction targets and a structure aimed at balancing 'excessive' reductions with 'deficit' reductions through introducing a market for 'emission credits' was designed.

## **Why is CO<sub>2</sub> emission credits trading being introduced in Europe?**

The Kyoto Protocol is initially aimed at reducing carbon dioxide (CO<sub>2</sub>) emissions worldwide, but it has not yet been ratified by a sufficient number of countries to bring it into effect. However it seems likely that Russia will soon sign and that will be sufficient to start the Protocol implementation process.

Therefore in Europe, and possibly in some other parts of the world, progress is already being made introducing a regional scheme in preparation for Kyoto. Nevertheless the European scheme will stand on its own and continue even if Kyoto is not ratified.

## **The European scheme will include twenty five countries**

The European Union has set up its scheme around EU Allowances (EUAs). These allowances are each worth one tonne of CO<sub>2</sub> Emission Reduction. The first year of operation will be calendar 2005, with the first settlement required at the end of April 2006. Polluters (including users in excess of a determined amount of electricity per annum) will have to reduce their emissions by a certain percentage (translated into tonnes) or they will have to provide the authorities with 'credits' (EUAs) sufficient to meet that requirement. The base year for the requirement or credit determination is 1990. Polluters that succeed in persuading their authorities they have reduced emissions will be granted 'credits' (EUAs). If a polluter's allocation of EUAs exceeds its required emissions reduction, it will be free to sell the surplus. Each EUA will be registered in a central register,

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along with the name of the current owner of the EUA. At the end of April 2006 any 2005 EUAs registered in the name of a deficit polluter will be written-off against its required 2005 emission reduction. Such EUAs will consist of any allocated by the authorities due to actual emission reductions achieved, plus any EUAs purchased in the market up to the settlement date. Any unused 2005 EUAs can be used to cover 2006 deficits.

If a United Kingdom (UK) based company does not reduce its emissions and/or does not provide the EUAs required in 2005, it will have to pay a fine of €47 (euro) per tonne. In addition to this fine, the company will have to find the required EUAs in 2006 to cover both its 2005 requirement and those to cover its 2006 requirement.

The fine will increase in subsequent years, rising to €118 per tonne in 2008.

## **The European market for emission credits**

At present it is not possible to determine the supply/demand balance for EUAs since they have not been formally announced or allocated. Also they may vary with the weather, since rain in Norway and Spain, for example, has a significant effect on hydroelectric production versus gas/coal electricity production in those countries. Moreover many practical questions relating to inter-country trading of credits remain to be resolved.

However the price of EUAs, already traded in small quantities, has risen from an initial €7 per tonne to currently €14. Many companies will be 'short' of credits in Europe, but on the other hand there are many entities that will have credits to sell. In fact there are so many (several thousand in Germany, for example) that it is anticipated that banks will aggregate and then trade parcels of credits. There may additionally be some scope for lending credits to cover 'short' positions at some point. It is expected that the market will be purely physical – rights exchanged for cash simultaneously – for the time being, with very few forward (i.e. delayed delivery) transactions. Nevertheless it seems that the Financial Services Authority (FSA) in the UK will probably decide to regulate it as a derivative market.

Initially it is expected that participants will have to use IETA contracts, since this format is the 'only game in town' at present. IETA is the International Emissions Trading Association (<http://www.ieta.org/>). There are firms however that are waiting

for EFET (the European Federation of Energy Traders, <http://www.efet.org>) to agree on an EUA schedule, while others prefer ISDA (International Swaps and Derivatives Association, Inc., <http://www.isda.org>) terms.

Many sellers of credits will be located in Eastern Europe where numerous polluting factories have been upgraded or partly closed down since the Berlin Wall fell in 1989, thereby creating saleable credits. In fact some factory upgrade financing schemes, with repayment linked to the forward sale of resulting EUAs, are already under consideration.

When Kyoto is ratified there is an understanding that it will be possible to trade Carbon Credits between regions, e.g. to buy credits from Australia to cover excessive emissions in the UK.

#### **Why should IECA members be concerned about the European Union carbon dioxide (CO<sub>2</sub>) emission reduction requirements?**

##### **Practical credit related implications of the changes underway**

The European experience is an example of a phenomenon that will encompass most of the globe within two years. "Standard & Poor's Ratings Services (S&P) expects virtually all sectors to be affected by increased power costs. Furthermore, S&P expects that the new measures will impose an additional level of debt and/or result in a reduction in the operating cash flows of many companies." (*S&P Research: Emissions Trading: Carbon will become a taxing issue for European Utilities. August 21, 2003*) Hence it is predicted that the introduction of CO<sub>2</sub> emission reduction requirements, and related CO<sub>2</sub> emission credits trading, will adversely affect many of our customers.

### **Why should IECA members be concerned about the European Union carbon dioxide (CO<sub>2</sub>) emission reduction requirements?**

In addition we are likely to have to deal with many new counterparties as our companies themselves become involved in trading CO<sub>2</sub> emission credits. If our companies become involved in derivative instruments related to EUAs it may become necessary to negotiate additional ISDA, IFTA, or EFET agreements and to manage related margining collateral arrangements.

S&P warns in the research paper already referenced that, "CO<sub>2</sub> trading in 2005 will change the power sector's cost structure. It will reduce the competitiveness of coal-fired generation in favour of gas fired production, increase the gas proportion of the fuel mix at the expense of coal, and require additional investment in generation and transmission lines. The likely additional demand for gas could also result in higher gas prices generally. There could also be a lifeline for ailing nuclear assets, depending on the political climate."

This means that the credit risk landscape we manage is continuing to change, requiring careful research, thought and watchfulness in respect of our traditional counterparties.

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