

# **EMISSIONS TRADING AND THE GLOBAL CARBON MARKET – RISKS AND OPPORTUNITIES**

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The Kyoto Protocol was signed in 1997 and sets legally binding emission reduction targets for developed countries to reduce emissions by an average of 5.2% below 1990 levels by the period 2008-2012. With expected Russian ratification, the Protocol will be due to enter into force in late 2004 or 2005. A carbon-constrained future is now a reality.<sup>1</sup> Regardless of and in parallel to Kyoto Ratification, the European Union is pressing ahead with the introduction of an emissions trading scheme which will begin in January 2005. Increasingly carbon is going to be valued as an asset or a liability on the balance sheet of companies. Firms that fail to estimate their value at risk from exposure to climate change will be at a competitive disadvantage while firms that take pro-active action are likely to benefit. The Climate Disclosure Project (CDP) has demonstrated how many corporations are taking early action on climate change, even before the Kyoto Protocol has entered into force. Common elements of such actions include setting internal emission reduction targets, developing greenhouse gas management strategies, participating in international rulemaking activities related to climate change and undertaking emissions trading. Some companies such as BP and Shell have taken a “pioneering” approach towards the climate change issue, believing that gaining early experience will contribute to a position of competitive advantage as the market further develops. However, the CDP has also demonstrated that there are a significant number of companies, which while formally recognizing that climate change is an important issue which needs to be taken into consideration, have yet to undertake significant action and as a result do not fully understand the risks and opportunities.

The agreement to proceed with an EU ETS is perhaps the most significant development towards the creation of a truly global carbon market. The scheme which

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<sup>1</sup> The Kyoto Protocol will enter into force 90 days after at least 55 parties to the United Nations Framework Convention on Climate Change (UNFCCC) incorporating 55% of the total 1990 level carbon dioxide emissions of Annex I Parties to the Convention have ratified. As of June 30<sup>th</sup>, 2004 Russian ratification constituting 17% of 1990 level emissions is still required for the Kyoto Protocol to enter into force.

is mandatory and is scheduled to start in 2005 will eventually cover up to 28 countries including all 15 EU member states, the 10 accession countries (and quite possibly Norway, Switzerland, and Liechtenstein). Sectors covered by the EU ETS include the energy sector (all installations exceeding 20MW except hazardous or municipal waste installations), production of metals, minerals and paper and pulp. Major sectors which are currently not part of the EU emissions trading scheme include chemicals, transport, aluminium and domestic energy use. It is possible that some of these sectors will be covered from 2008. The scheme will initially cover only emissions from CO<sub>2</sub> gases from 2005 – 2007. However, from 2008 – 2012, member states can apply to include non CO<sub>2</sub> gases as well as the sectors which are not initially part of the scheme. The basis for determining liabilities of individual installations will be national allocations which have recently been developed by Member State governments and are scheduled to be finalized in late 2004.

Under the EU ETS, operators of all installations covered under the scheme will be required to hold a site specific and non-transferable GHG permit which will require it to hold sufficient EU allowances in its compliance account at the end of each calendar year equal to the actual GHG emissions monitored, reported, and verified from that installation during that same year. Firms which fail to hold sufficient allowances face fines of up to 40 euro/tonne during 2005-2007 rising to 100 euro/tonne during 2008-2012. This creates significant incentives for trading as EU allowances can be purchased from installations from companies in other countries and/or other sectors where marginal abatement costs are lower. In particular, the accession countries of central and eastern Europe have an opportunity to receive significant revenues from sale of EU allowances from emission reduction projects.

Emissions Reductions can also be obtained from projects. The linking directive for the EU ETS allows for joint implementation (JI) and clean development mechanism (CDM) projects in the scheme. Both emission reduction units (ERUs) and certified emission reductions (CERs) can be converted into EU allowances from 2008 onwards. This may finally create the private sector demand and market for both the CDM and JI that was envisaged when these two project based mechanisms were originally included into the Kyoto Protocol back in 1997. Not everybody was happy with the directive, however. For example, EURELECTRIC which represents the

European electricity industry, would like credits from project based mechanisms to be convertible into EU allowances for the period 2005-2007. In contrast, some NGOs such as GreenPeace are concerned that by not setting concrete limits on the amount of “credits” from JI and CDM projects which may enter into the scheme, priority is not given to domestic emission reduction projects. They are also concerned that large hydro-electric dams are not specifically excluded from the scheme.

The EU emissions trading scheme may well evolve into the precursor of the global carbon market which the Kyoto Protocol envisaged. It is clear that any other national emissions trading schemes such as those which are currently under consideration by governments such as Norway, Sweden, Canada and Japan are going to have to include basic compatibility with the EU scheme. Other countries and emissions trading schemes will, over time become compatible. For example, the UK Emissions Trading scheme (UK ETS) which started in April 2002 and which runs through until 2007 will eventually merge with the EU scheme. It is possible that participants in the UK ETS may receive an exemption from 2005-2007. From 2012, it is likely that as the Kyoto process evolves, developing countries will need to take on some form of commitment in terms of legally binding emission reduction targets. Whatever form or shape these commitments take, it is clear that there is going to have to be some basic compatibility with the EU ETS.

While the EU ETS will not recognize assigned amount units as compliance tools, it is important to note that under the Kyoto Protocol, assigned amount units will be used and could, in time, become quite attractive to governments who finally realize that they are not going to meet their Kyoto targets through domestic measures and/or participation in emission trading under the EU scheme. In addition, sales of assigned amount units through emissions trading could be coupled with domestic reduction projects so as to create a financially more attractive instrument for the buyer. Such a transaction took place in 2003 when Sumitomo corporation of Japan purchased some 200,000 tonnes of “green-backed” AAUs from Slovakia.

Finally, what should companies affected by the EU emissions trading scheme and emissions trading in general do to maximize opportunities and minimize risks. Firstly, an inventory of current and future projected co2 emissions from business operations

should be estimated. Combined to this inventory a pipeline of potential investment costs should be put together and marginal abatement costs (\$/per tonne co2 abated) should be calculated. Where marginal abatement costs are lower than the cost of EU allowances, additional investments in projects or activities which reduce GHG emissions should be seriously considered. Based on this analysis combined with an analysis of the price of EU allowances companies should put together a trading strategy which could also include purchase of emission reductions from CDM and JI projects that can, through the linking directive, be converted into EU allowances. The trading strategy should seek to minimize any potential liabilities and ensure compliance with the EU ETS allocation of the company. Companies which move quickly to understand the risks and opportunities will gain an advantage in an increasingly carbon constrained global economy.