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Kyoto Carbon Credits

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Abstract – Climate change is nowadays being taken increasingly seriously, and the link between global warming and the carbon dioxide released in the generation of energy is coming under increasing scrutiny. The Kyoto Protocol was signed in 1997, after five years of negotiation. So far, about 84 countries have ratified this agreement, under which terms developed countries have strict targets linked to their 1990 level of emissions. However, 'greenhouse gas' (such as carbon dioxide) emissions continue to rise alarmingly. According to the World Resources Institute, greenhouse gas emissions in the USA increased 13% from 1990-2002, while Australia recorded a 22% increase. In contrast, the European Union, a Kyoto signatory, has seen a small decline in its emissions during the same period. This is led by the UK and Germany, who reduced their emissions by 15% and 19% respectively.

The concept of 'carbon credits' provides a funding mechanism for companies in the developed world to compensate for some of their CO_2 emissions by paying companies (trading credits) elsewhere in the world to undertake projects to bring about reductions in emissions. In the southern African mining industry, it will be possible to get refunded for undertaking voluntary emission-reduction projects. Concern about the environment is creating business opportunities.

A preliminary calculation has shown that various projects in South Africa (those in the pipeline, with quite a high likelihood of coming off) could earn a combined total of about R2.5-billion, under the initial phase of the Kyoto Protocol's carbon-credit scheme, which allows developed-country companies to trade credits with developing countries. A number of local companies are planning projects that could comply with the Clean Development Mechanism (CDM), in which they will implement techniques to achieve certified emission reductions (CERs) of greenhouse gases.

In order to prevent abuse of such a system involving vast sums of money, vigorous audits need to be carried out. A company has to prove it has made real changes and is not simply conducting business as usual under a cloak of claimed environmental improvements. PricewaterhouseCoopers has applied to become one of only a few international agencies that will be accredited to conduct validation and verification of the credits, by auditing what is called the 'designated operational entity'. An independent validator needs to confirm that the project meets the strict requirements of the Kyoto Protocol. The company has to demonstrate that it's not business as usual. So, if you refurbished every five years, the next refurbishment is not a good CDM project, unless you can demonstrate that you will do something beyond the maintenance - that is what can be registered. So, Kyoto intends to get additional projects going, and the money for that is actually quite good - prices of 14 euros per ton of carbon dioxide not emitted have

been seen. The price depends on who takes the risk for non-delivery if a project doesn't deliver the emission reductions on time.

The highly energy-intensive South African mining industry is heavily dependent on coal. There should be many opportunities for the pyrometallurgical industry to come up with creative ideas to reduce emissions, and there is now an additional financial incentive to encourage this. Companies can actually get money in return for doing these types of projects, in addition to the contribution to corporate social responsibility.