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Cleantech and Emissions Trading: Starting to Come Together

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I recently had the pleasure of speaking and chairing the green trading panel at the Cleantech Venture Forum (www.cleantech.com) in New York. There was quite a bit of interest in how SO_2, NO_X, CO_2 and Recs were related to clean technology projects. These are very good issues to dive into, since the regulations on both emissions trading and renewable portfolio standards are quite confusing to investors. They are actually more confusing on CO_2 reduction and renewable energy due to the lack of the federal standards on both. However, it seems kind of obvious to most cleantech investors that we are entering a carbon constrained world and that their venture capital investments in clean technology will have an environmental kicker at some juncture in the United States and in 2008 in the Kyoto world. The question then becomes, "How is this related to carbon finance and carbon offsets and more importantly investment in the realm of clean energy and cleaner technology?"

As I mentioned in an **Issue*Alert*®** article on July 11, 2005, the business model of investment in the green space has become blurred with venture capital, hedge funds and private equity. This hybrid business model of trying to figure out of the best business structure to participate not only in investment in equities and commodities but also in clean technology tied to carbon reductions is actually becoming quite important for new project development in the area of carbon offsets. It is less confusing in the area of renewable energy credits since demand for green power is already robust and accelerating in the United States. The entire concept of “green trading” is focused on the interrelationship of emissions reductions, renewable energy credits, and energy efficiency.

Investment interest is now more focused on how to invest in new technologies and gain investment streams that perform two or three of these environmental benefits that they should benefit from multiple credit streams. Of course, there are the bureaucrats who believe that “double counting” of credits for renewable and carbon reductions are a bad thing. But I think that in the beginning of a market shift, these multiple environmental credit streams actually enhance project creditworthiness. They also get us beyond the myopia of subsidizing technologies and push cleaner technologies to more market centric sustainability. This is better economic model for the future since it seems inevitable that technology cycles are accelerating and the need to invest in better technologies that are more energy efficient, as well as cleaner, will deliver better financial results. In short order, they don't need the subsidies anymore, and smart accountants and lawyers can figure other tax advantages for these investments.

Air and Water are Now 21st Century Financial Markets

To borrow from Richard Sandor of the Chicago Climate Exchange, the commoditization of air and water is now underway. These will be frontiers of finance but also drivers of new wealth creation. Greenhouse gas reductions cover CO_2, methane (CH4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). For investors, the game now switches to obtain "certified emissions reductions." The numbers are encouraging and generating more financial interest such as Goldman Sachs investment in 10.1 percent of the holding company for both the Chicago Climate Exchange and European Climate Exchange during September. They smell the money now.

The EU Emissions Trading Scheme has already traded 684 million tonnes of CO_2 traded in first six months of 2006 which are valued at approximately $15.3 billion. The Kyoto flexibility mechanisms called clean development mechanism (CDM) and joint implementation (JI) traded 226 million CDM and JI Credits traded in first six months of 2006 which were worth €2.5 billion. A recent HFC project in China is worth approximately €1 billion. We are going to see more investment in the developing world, particularly India, China, Brazil and Russia due to the need to comply for both the EU Emissions Trading Scheme and Kyoto.

Market is Accelerating Now

There are several options for entering this market and obtaining credits. One is to buy credits on exchanges and through futures contracts. Another way is to invest in projects and obtain the entire credit scheme and this is increasingly favored by hedge funds. A more conventional approach is to invest in carbon and technology funds and companies. All three strategies are currently being pursued and accelerating in North America, Europe, Asia and South America (in the United States, in anticipation of a carbon regime). The bottom line is that change is under way.

The reality is that the carbon deficit is growing and is now over 25 billion tons of CO_2. The need to change to more environmentally benign technologies is also accelerating. New technologies such as IGCC, load management, methane capture, carbon sequestration and renewables are firmly taking root. We see the financial products for the environment as a natural extension of market development and most obviously, their tie to the more established energy financial markets. The players today are commodity traders, green hedge funds, and private equity, but venture capital in the clean energy space is now at take off stage, driven by both technology shift and regulatory imperatives.

By investing in projects, multiple credit streams for NOx and SO2 as well as carbon can be monetized. If there are renewable projects so can securitization of renewable energy streams which we are already seeing well-developed in wind power developments. The point is that these multiple credit streams increase return on investment and reduce the cost of capital. It becomes an ever-accelerating globalized process. We are now seeing cleantech take root in the emissions markets and contributing to the carbon reduction needs of the future. Welcome aboard!

Peter C. Fusaro is an advocate of mandatory federal standards for both GHG and renewable energy. He is also an associate member of the Chicago Climate Exchange, a voluntary greenhouse gas exchange which trades all six greenhouse gases.