Press Release – for immediate use

29 July 2008

"Easy carbon credits coming to an end"

The latest analysis from New Carbon Finance confirms that many of the low hanging fruit of cheap carbon credits in the developing world have now been harvested. Further opportunities for reducing emissions will require more effort, spurring investments in renewable energy and energy efficiency.

Low cost projects have dominated the supply of carbon credits

To date the cheapest means of reducing greenhouse gas emissions for countries that have signed up to targets under the Kyoto Protocol have come from projects that eliminate high global warming potential (GWP) gases in developing countries, notably in China. These projects involve the destruction of two types of waste gases from industrial facilities, HFC-23 and N_2O, both of which are several thousand times more potent in terms of global warming than CO_2, the world's main greenhouse gas.

It is because of the size of the emissions reductions achievable from these projects relative to the scale of investment required that the resultant carbon credits are so cheap. The cost per tonne of CO2 equivalent removed from these projects is typically of the order of €1/tCO2e. This compares with costs claimed by project developers for renewable energy and energy efficiency projects of between €5 and €15 per tonne and a current global market price for carbon credits from developing countries of around €20/tCO2e.

To date these projects have dominated the supply of carbon credits under the Kyoto Protocol. As of 11 June 2008, 72% of the carbon credits issued to date by UN under the Kyoto Protocol had come from these two project types. This was only slightly down from the start of scheme: as of January 2007 these projects accounted for approximately 75% of the total number of credits issued.

Environmental criticism

These types of carbon credits have come under fierce criticism from environmental groups, which claim that the projects have few benefits in terms of wider sustainability and that the profits from the carbon credits generate more profit than the industrial facility itself, thereby encouraging further expansion in output and emissions. Project developers counter these criticisms indicating that the emission reductions would not have been achieved without the value of the carbon credit and that no new facilities have been built simply because of the carbon credit. These types of credits have also been approved by the UN.

In response to the criticisms of the carbon market, New Carbon Finance analyst Maria Carvalho said, *"The fear has been that the lucrative nature of HFC-23 and N_2O projects diverts investment into developing these as carbon offset projects rather than more ambitious ventures, such as renewables. However what critics fail to recognise is that reducing emissions from HFC and N_2O projects can never be a long term solution to reducing global emissions – these projects are merely a precursor to a broader and deeper global carbon market."*

Few new projects left to develop

This debate will however become less relevant as the dominance of these industrial gas projects will soon diminish. Research from New Carbon Finance (NCF) predicts that credits coming from HFC-23 and N_2O gases will account for 30% of the number of carbon credits issued from the CDM by the end of 2010. This proportion will decrease further to 24% by the end of 2012, the date when the current version of the Kyoto Protocol expires.

The reason for this decline is that most HFC-23 and N_2O projects that are eligible under the Kyoto Protocol have now been developed. A recent NCF survey on China's chemical industry shows that all ten of the industrial facilities that are eligible to gain credits for the CDM for HFC-23 gases have already been developed as carbon projects, with 8 projects already receiving carbon credits. Additionally, the survey reveals that 80% of the N_2O emissions that can be reduced through carbon projects in China have already been developed as CDM eligible projects.

Whilst these projects relate only to existing facilities, strict criteria imposed by the UN will prevent *new* industrial facilities emitting these gases from being eligible for future carbon credits. These criteria were put in place to curtail any perverse incentive of industries increasing production in order to create more carbon offset projects, and hence, gain more credits. Therefore only facilities that have been in production before the end of 2005 are eligible for the CDM.

As China accounts for the majority of developing country emissions, representing 80% of HFC emissions and 60% of N_2O emissions, the chances of finding opportunities for these kinds of projects in other countries would seem small. NCF research shows that this is indeed the case, where most, if not all, HFC and N_2O projects in other developing countries such South Korea, India and Brazil have been developed.

New projects to focus on renewable energy and energy efficiency

With development of these large industrial gas projects now complete, the emphasis is turning to renewable energy and energy efficiency. New Carbon Finance calculates that the proportion of carbon credits coming from renewable energy projects will increase from 17% in 2008 to 22% in 2012, and the share of credits from energy efficiency projects will increase from 5% in 2008 to 10% in 2012. [1] Due to the size of their economies, China and India will produce the majority of these new credits (38% and 17% respectively), but Brazil, South Korea and Mexico will also be home to large numbers of these projects.

"As these 'easy' carbon credits come to an end, project developers will increasingly look to develop more projects at higher costs. We can already see this in China, where activity is focussing on projects that improve energy efficiency in the power and industry, reduce methane emissions from coal mines, and develop wind and hydro power projects," says Yan Sheng, a New Carbon Finance analyst based in Beijing.

€9bn investment required to hit 2012 targets

These new projects will require sustained capital flows to ensure a sufficient number of projects are developed and implemented in time for the compliance deadline of 2012. New Carbon Finance estimates that some **€9bn** needs to be invested between now and 2012 to help finance these projects to meet the world's emission reduction targets, most of which will flow into the clean energy and energy efficiency sectors. [2]

Guy Turner, director of New Carbon Finance, believes that this financing should be forthcoming "*Although the process of taking an emission reduction project from concept through to completion is complex the rewards are high. The price of credits we are seeing today of around €20/t should be sufficient to stimulate the necessary capital flows to these high quality projects."*

ABOUT NEW CARBON FINANCE:

New Carbon Finance is the leading provider of high quality fundamental analysis of the European, North American, global and Australian carbon markets. Our team of analysts has been providing professional advice on carbon markets since 1998, including assistance in the design of various national and international schemes and company-level strategic advice. During this time we have built up highly detailed fundamental market models that analyse carbon market demand and supply and provide regular forecasts of carbon prices. New Carbon Finance operates as a division of New Energy Finance.

ABOUT NEW ENERGY FINANCE:

New Energy Finance is the world's leading independent provider of research to investors in renewable energy, biofuels, low-carbon technologies and the carbon markets. The company's research staff of 120 (based in London, Washington, New York, Palo Alto, Beijing, New Delhi, Tel Aviv, Cape Town, Sao Paulo and Perth) tracks deal flow in venture capital, private equity, M&A, public markets, asset finance and carbon credits around the world.

The New Energy Finance Desktop is the world's most comprehensive subscription database of investors and investments in clean energy. New Energy Finance's Insight Services provide deep market analysis to investors in Wind, Solar, Biofuels, Biomass, China, VC/PE, Public Markets and the US. New Energy Finance is co-publisher of the world's first global stock-market index of quoted clean energy companies, the WilderHill New Energy Global Innovation Index (ticker symbol NEX). The company also undertakes bespoke research and consultancy, and runs senior-level networking events.

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1 Renewable energy projects include wind, solar, small scale hydro and biomass including landfill gas technologies. Energy efficiency projects include those involved with the power sector, industry, households, and businesses.

2 €9bn reflects the proportion of the CDM and JI pipeline that we estimate still requires financing, as well as new projects that we expect to come into the pipeline between now and 2012. This figure excludes the sale of excess credits at the international level from countries such as Russia and Ukraine which we expect to occur between now and 2012.

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