

## Programmatic CDM stalls on 'liability' concerns

Activities that aim to earn carbon credits by cutting greenhouse gas emissions across a large number of locations – such as installing energy lightbulbs in tens of thousands of homes, for example – may fail to play a role in the Kyoto protocol unless the UN changes the rules on how projects are audited, market participants have told Point Carbon.

CDM projects that cut emissions over many different locations are known in the official jargon as 'programmes of activities (PoA)' and have been touted by the UN, the World Bank, environmental groups and climate policy experts as a way of cutting emissions at a grassroots level by using cleaner technology in homes and small businesses, contributing to sustainable development – and at the same time earning carbon credits.

The programmatic approach has also been heralded as a possible solution to the relatively low investment in CDM projects in sub-Saharan Africa and those pockets of Latin America and Asia where investment in Kyoto projects does not reach.

But UN rules could strangle these types of projects at birth, claim auditors who are required to verify that projects are in line with UN criteria and that the promised emissions cuts are being carried out.

According to the UN guidelines, if the auditor, known as the DOE, signs off on a project activity and that project activity is later ruled ineligible by the EB, then the DOE is liable to pay back the CERs that were issued in the interim.

"DOEs, project developers and buyers need much clearer guidance from the EB on the question of liability. As it stands, programmatic CDM won't happen," said Javier Castro of Tuv Sud, a German verification company that carries out auditing services for CDM projects.

DOEs, who carry out a range of services required by the UN to get CDM credits issued – including validation, verification and monitoring – are passing on the costs of liability to developers of projects who cannot afford to pay such fees, said Belinda Kinhead, head of implementation at EcoSecurities, a UK-listed company that pools carbon credits from CDM projects.

She said the cost to a CDM project activity as part of a programmatic project can reach \$8,000-10,000, and sometimes will cut emissions by only one tonne. "We had to contact six DOEs before we could agree a contract for a potential project," she said.

Other market participants said that stretched resources for auditing services in the project-based CDM market were also making DOEs reluctant to get involved with programmes.

"DOEs are currently overbooked and the last thing they want now is extra work with uncertain liability, that's why PoA work is well down on their priority list," said Francisco Avendano, senior project manager with the First Climate Group, a buyer of carbon credits and advisor to the CDM market.

*Continued on page 3*

### The state of the CDM

Project stage	Total	New <sup>1</sup>
Projects submitted for EB registration <sup>2</sup>	237	10
Projects registered	1051	19
Meths - total <sup>3</sup>	446	0
Meths - approved (A) <sup>4</sup>	112	0
Meths - under revision(B) <sup>5</sup>	0	0
Meths - not approved (C) <sup>6</sup>	135	0
Meth Panel yet to assess	16	9

*See page 8 for explanation/footnotes*

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**CDM and JI Project Pipeline**

So far 7,243 proposed CDM and JI projects have been registered in Point Carbon's Project database. Of these, 4,041 projects, potentially yielding 3,456 mtCO<sub>2</sub>e of emissions reductions towards 2012, have reached Project Design Document (PDD) level.

Total	T	14	C
MtCO <sub>2</sub> e	5367	5327	+40
Number	7243	7181	+62

PDDs	T	14	C
MtCO <sub>2</sub> e	3456	3413	+43
Number	4041	3982	+59

Commented	T	14	C
MtCO <sub>2</sub> e	2672	2649	+23
Number	3405	3351	+54

EB/SC	T	14	C
MtCO <sub>2</sub> e	1329	1308	+21
Number	1057	1033	+24

Issued	T	14	C
MtCO <sub>2</sub> e	140	137	+3
Number	338	334	+4

T=Today; 14=14 days ago; C=Change. Total: Number of JI and CDM projects registered in Point Carbon's Project Database; Commented: project submitted for public comments on UNFCCC website as part of validation. EB/SC: projects registered by the CDM executive board or JI supervisory committee; Issued: CDM EB or JI SC has issued CERs/ERUs (number refers to the number of times CERs/ERUs have been issued). All volumes are total volumes until 2012. For forecasted volumes, see Carbon Market Monitor.

**Secondary CER assessment**

Contract	Low	High
Dec-08	17.10	17.20
Dec-08-12	17.55	17.65

Quoted prices are for euros per CER, at close of market 13 May, according to Point Carbon's methodology. For methodology, see [www.pointcarbon.com](http://www.pointcarbon.com).

**CDM market comment**

Secondary CER prices rose strongly over the past two weeks on the back of brisk demand for the Kyoto credits amid a reappraisal of supply by a UN research organisation (see story on page 4).

Secondary CERs for December 2008 delivery rose to €17.15 on 13 May, up from €15.95 at the close two weeks ago. By comparison, prices of EUAs rose to €25.15, compared with €24.15 14 days ago.

Traders said Unep Risoe's downward revision of its supply forecast to 1.5 billion from 1.8 billion credits between now and 2012 came against the backdrop of continuing backlog in getting projects 'validated' by auditors, a problem that threatens to delay when a project will actually be able to earn carbon credits, this reducing supply.

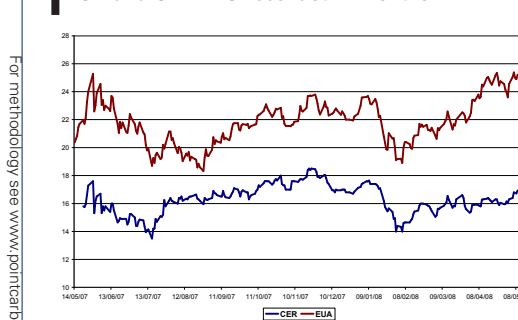
Expectations of lower supply and the bullish impact on the CER market appears to have outweighed bearish sentiment of last month.

In the primary market, CERs remain in the €8-14 range, and traders debated at Carbon Expo in Cologne whether Chinese sellers are likely to raise their prices if EUA prices move much higher from the current price of around €25.00.

"Some in the market still believe that Chinese look at EUA prices and then decide what they want for CERs, but they are much more sophisticated than that. They realise that the dynamics in the EUA and CER markets are often separate."

However one utility buyer said that state-owned industries could demand higher prices in the longer run if they thought that their credits were undervalued relative to EUAs.

**EUA and CER DEC 2008 last 12 months**



For methodology, see [www.pointcarbon.com](http://www.pointcarbon.com)

However, some observers contend that the UN is right to require that auditors pay back CERs that have been issued to an activity that has failed to cut the required amount of greenhouse gas emissions.

"The EB has a point when trying to make sure they accomplish the integrity of the convention. The point is to come to a balance and not to hang on to the extremes. The DOEs need to be flexible when it comes to share risks and assume costs. DOEs are part of the convention since they are accredited by the EB, it is a matter of ethical issues, not only of profit maximisation," said Xianli Zhu of Unep Risoe, a Danish-based UN research organisation.

Liability for DOEs is an issue in all types of CDM projects, but has particular resonance for in programmatic CDM because auditors need only to have validated one part of a programme to be saddled with responsibility for the entire programme, and some programmes can last for 28 years.

Project developers, buyers of carbon credits and DOEs are to request a meeting to resolve liability issues – and also the vexed issue of how such programmes are monitored – so that this stream of the CDM can get off the ground. Only two programmes have reached validation stage so far.

### **Global carbon market doubled to \$64 billion in 2007, but CDM stalls**

The size of the global carbon market doubled to \$64 billion (€41.32 billion) in 2007 compared to 2006, the World Bank said in a report released on 7 May, but it added that investment in greenhouse gas reduction projects in developing countries had levelled off.

The report, entitled 'State and trends of the carbon market 2008', said the EU ETS doubled in traded value to \$50 billion. The number of allowances traded also doubled.

The World Bank survey said that the volume of transactions made through the CDM rose to 551 million tonnes of carbon dioxide equivalent in 2007, worth \$7.4 billion, up from 537 million tonnes in 2006, when the transactions were valued at \$5.8 billion.

The number for secondary CDM credits traded rose to 240 million in 2007, worth \$5.4 billion, up from 25 million at a market value of \$445 million in 2006, the report said.

"Sixty-eight developing countries participate in the CDM, among them Jamaica, Kenya, Mali and Madagascar, which offered climate-friendly projects for the first time in 2007," said Karan Capoor, the main author of the World Bank, who expressed concern over the lack of growth in CDM investments.

"At a time that global co-operation to reduce the risk of climate change is more important than ever before, the prospects for developing countries benefitting from the carbon market are in question. It would be a shame for the world to lose this momentum now," Capoor said.

The bank said the European commission's proposals to place tight limits on the use of CDM credits in the third phase of the EU ETS, which starts in 2013, was one of the elements adding uncertainty to the flow of investment to cleaner energy projects through the Kyoto protocol.

Meanwhile, delays in getting projects approved by the UN were also proving to be a major stumbling block to the CDM.

"Projects for renewable energy and energy efficiency, as well as investments in poorer developing countries make up the bulk of the projects this year and it is these projects that are losing out as a result of procedural delays and bottlenecks in the CDM, putting their eventual implementation into question," said Philippe Ambrosi, a co-author of the report.

The World Bank report said that China had maintained its position as the dominant seller of carbon credits, with a 73 per cent share of forward sales in 2007, followed by India (6 per cent) Brazil (6 per cent) rest of Asia (5 per cent) and 5 per cent each in Africa and the rest of Latin America.

The World Bank report said there was a big increase of investment in joint implementation (JI), which is the other mechanism of the Kyoto protocol that funnels money into greenhouse gas reduction projects.

The number of carbon credits bought through JI - which enables investment in projects in countries that have targets under the Kyoto protocol - rose to 41 million in 2007 at a value of \$499 million, up from 16 million credits worth \$141 million in 2006.

Total demand for Kyoto carbon credits could reach 2.4 billion over the period 2008-2012, up 400 million

from the bank's estimate last year, the report said.

On the supply side, the World Bank said CDM and JI could deliver around 1.8 billion credits, although analysts' predictions varied widely, from 1.6 billion to 2.5 billion. Last year, it said the supply could amount to 1.7 billion credits.

### **Market targets Dec 2012 CER after UN cuts its previous supply forecast**

Concerns over thinning supply of UN carbon credits is pushing secondary CER prices higher and sparking a flurry of buying activity, according to traders in the European carbon market.

Some 1.725 million UN carbon credits for delivery in December 2012 were handled by brokers on 9 May, according to data from the London Energy Brokers Association (Leba), following news that a UN body had slashed its credit supply forecast for the next five years.

The volume traded amounted to almost half of the total 3.57 million CERs handled by Leba members on the biggest day of trading in UN-backed carbon emission credits.

The surge saw the December 2012 contract, which is not normally the most liquid contract for UN carbon credits, climb €0.25 on the previous session's closing price to a high of €17.70.

"The market is targeting the Dec 12 contract because it's the cheapest on the curve once you factor in banking," said one trader.

Following months of concerns over delays in getting UN approval for emission reduction projects and getting CERs issued to UN registered projects, UN research institute Unep Risoe earlier this month cut its original forecast for the expected supply of CERs in phase two to just under 1.5 billion, down around 300 million from previous estimates.

News also emerged at the Carbon Expo conference in Cologne early May that the German government was lobbying for more CERs to be used for compliance targets in phase three of Europe's cap and trade scheme, which runs from 2013 through 2020.

### **Russia may revise sectoral quotas: government official**

Russia may revise a quota system applied to particular greenhouse gas reduction projects aiming to earn carbon credits through the Kyoto protocol, a government official told an industry conference on 8 May.

Russia's quota system, which places limits on the amount of carbon credits that can be generated by particular types of projects – such as patching up leaky pipelines in the country's sprawling network of gas pipelines, or energy efficiency in heavy industry – has been cited by investors as one of several sources of uncertainty in a market that has struggled to gain traction so far.

"We have no plans to change the overall quota of 300 million over the Kyoto period, but in the future we may decide to change the limit on a particular sector," said Oleg Pluzhnikov, head of energy efficiency at Russia's trade ministry.

Pluzhnikov, whose role also includes regulating carbon trading in Russia, explained that if one sector doesn't reach its credit threshold, the government could allow other industrial sectors to generate more credits.

Data supplied by the National Carbon Sequestration Foundation, which aims to promote emissions reduction projects in Russia, shows the energy sector – including oil and gas, power plants, and big users of electricity such as metals and petrochemicals – would be subject to a carbon credit threshold of 205 million over the next five years.

Under current rules, 'industrial processes,' which cut emissions of highly potent greenhouse gases such as HFC 23 and nitrous oxide, would have a 25 million credit limit.

Caps on carbon credits would be placed at 30 million in the agriculture sector, 20 million in land use, land-use change and forestry and 15 million from the treatment of waste.

Russian officials have provided few details on why the sectoral quotas are in place, but industry observers say that government officials are keen to hasten investment in particular sectors by suggesting the 'full up' sign might be waved at a later date.

However, investors want to be sure that their

investments in projects in particular sectors aren't disqualified at a later date because of caps imposed on how many credits sectors can sell.

Russia is seen as having the biggest potential to generate carbon credits through JI.

But even though Russia finally agreed earlier this year to set up the necessary bureaucracy and start approving projects, investors point to major stumbling blocks such as reliability of contracts, the ability to get projects audited quickly, UN criteria for approval of JI schemes, and the lack of an international framework post-2012.

### **Brazil decision on baseline will mean more CERs: analyst**

A long-awaited decision by Brazilian authorities on how to measure the carbon intensity of their national power sector will clear up a backlog of on-hold renewable energy projects that generate UN-regulated carbon credits, market participants said.

Brazilian project developers have waited almost one year for the country's designated national authority, the government body which awards host country approval to CDM projects, to finalise how it will calculate "baseline emissions factors."

This measurement of the carbon intensity of the power sector impacts the amount of carbon credits issued to CDM renewable energy projects.

In early May, Brazil's DNA said it had decided to adopt a single national emissions factor to evaluate CDM renewable energy projects, and said it would release the calculated emissions factors by the end of the month.

This differs from the proposal it introduced last year to evaluate the electricity sector's emissions factors according to four geographic sub-regions, which some in the private sector said would cause a downward revision in emissions factors for certain areas of Brazil.

Brazil's electric network consists of four separate regional grids that vary in terms of how clean the electricity they generate is. While the north and northeast have a low emissions factor because they produce lower-emitting electricity, largely from hydropower, the more populous south and southeast have higher factors due to "dirtier" energy supplies.

Opposed to the government's method, project

developers in the country had created their own calculation by dividing the country into two regions, which would result in 3.2 million more CERs being generated per year from projects in Brazil than the government's plan, a consultant with EcoSecurities told Point Carbon.

The government and project developers have been at an impasse over emissions factors for a year, keeping renewable energy projects on ice.

Project developers and market players did not necessarily agree with the DNA's decision to unify the emissions factor, preferring to have two emissions factors instead, but were unanimous in their satisfaction that a decision had finally been made.

"I believe the major positive impact is the decision itself, as today many projects are on hold, awaiting the announcement of the emissions factor. Once this uncertainty is taken away, people can start recalculate the consequences for each individual project," Maurik Jehee, director of carbon markets at Brazilian bank Banco Real, told Point Carbon.

### **EU cannot go it alone on buying CDM credits: commission**

Companies in EU member states should not be the only ones to buy large amounts of carbon credits from developing world countries through the CDM, said an official in charge of drafting rules on emissions trading across the bloc.

The future of the CDM market should also depend on the willingness of other big countries with plans for emissions trading schemes, such as the US and Australia, to import credits, said Peter Zapfel, emissions trading co-ordinator at the directorate general environment of the commission at the Carbon Expo in Cologne last week.

"The European Union has done more than anyone to support CDM but we can no longer do it on our own," he said.

"You now have to look to the United States, which may put together a robust trading system for the near future, and countries like Australia, for the future of the CDM mechanism," he added.

One of the leading bills in the US Congress aimed at introducing a cap-and-trade system may permit the use of offsets from the CDM, according to a revision

of the draft just published, but a federal scheme is viewed as unlikely to start until 2012 or 2013 and would depend on the blessing of lawmakers and a new president.

Australia, meanwhile, will by the end of this year publish a blueprint on a future emissions trading scheme, which may include a provision for the use of CDM credits.

Zapfel made the remarks against the backdrop of an ongoing debate about the European commission's proposal for limiting the import of UN-endorsed carbon credits into the EU over the 2013-2020 period.

The proposal, which was published in January, would mean very few carbon credits could be used in the European carbon market in the 2013-2020 period beyond the 1.4 billion credits allowed 2008-2012.

If the 27-nation bloc takes on a 30 per cent reduction target, then companies will be allowed to use a good deal more than what is allowed under the 20 per cent EU target.

### **India's largest steel firm seeks to generate more than 20 million CERs**

Government-owned Steel Authority of India Ltd (Sail) plans to host 38 CDM projects at five of its plants, which could deliver over 20 million UN-regulated carbon credits over 2009-2012.

Sail has hired carbon advisory firm Asia Carbon Global to develop the projects and market the resulting CERs, Asia Carbon said 6 May.

A total of 38 projects located at Sail's Bhilai, Bokaro, Durgapur, Rourkela and Burnpur integrated steel plants are under development. They cover a wide range of methodologies, including energy efficiency, waste heat recovery, emission reductions from new and clean technologies, and fuel switching, Asia Carbons' Anik Ajmera told Point Carbon.

When implemented, the projects will reduce greenhouse gas emissions by more than 5 million tonnes of carbon dioxide equivalent per year. If approved by the UN under the Kyoto protocol's CDM they will generate the corresponding amount of CERs.

"We are currently in the process of identifying suitable potential buyers for these carbon credits on behalf of Sail," said Ajmera.

The projects are at different stages of development, Ajmera said. Some of the projects will be bundled, others submitted to the UN individually.

According to Asia Carbon, the Sail initiative is the single largest public sector CDM deal in India. With over 330 projects approved by the UN, India is the host of the highest number of CDM projects, although it is second behind China in terms of the volume of emission reductions.

### **Enel buys 11.45 million CERs in China**

Italian utility Enel on 5 May signed contracts to buy 11.45 million CERs from a Chinese iron and steel company, and to cooperate with the Chinese government on the development of low-carbon technology.

Enel said it has agreed with Wuhan Iron and Steel Co to purchase carbon credits from five energy efficiency projects at the Chinese manufacturer's plants.

The projects, which are to be registered under the CDM, will cut greenhouse gas emissions by 11.45 million tonnes of carbon dioxide equivalent (mtCO<sub>2</sub>e) over 2008-2012.

Enel estimated the market value of the credits to be €150 million (\$232 million).

The utility said in March it expects its power stations in Italy will emit 40-45 million tonnes of CO<sub>2</sub> more than their caps over the five-year second trading period of the EU ETS. Its installations in Spain and Portugal would overshoot their targets by 86 mt.

Enel aims to purchase a total 88 million credits from the CDM towards compliance in the EU ETS. However, in March it had already contracted more CERs than it will be allowed to use, and said it would sell millions of the UN-endorsed credits on to other European companies.

In the other contract signed, Enel said it will cooperate with Italy's environment ministry and China's Ministry of Science and Technology on developing clean coal technology and pilot projects for carbon capture and sequestration, in a bid to cut China's greenhouse gas emissions.

## Guest commentary

### CDM is promoting sustainable palm oil production

*By Soeren Varming, YTL-SV Carbon and Michael Dutschke, BioCarbon*

There has been much talk about whether palm oil production and the possible use of palm oil for biodiesel production benefits the environment (through displacing the use of carbon-intensive fossil fuels) or harms it.

This debate has dissuaded some buyers of CERs from looking at projects in the palm oil sector. But this reluctance is based on a lack of understanding of the positive contribution to sustainable development that CDM projects bring.

There has been criticism in relation to the use of palm oil for biodiesel claiming it will create a demand for more palm oil plantations and thus a threat of reducing the remaining tropical rain forest in countries like Malaysia and Indonesia.

There might be some truth in this line of argument, but it is not the aim of this piece to discuss the wisdom of the biofuels policy in general, or the use of palm oil as biofuel specifically.

However, the impending discussion on the use of biofuels has no links with the undeniable sustainable development benefits of CDM projects in the palm oil sector.

To date, there are no CDM projects involving the use of biofuels from palm oil.

All CDM projects in the palm oil sector are basically improving the waste management in existing palm oil activities and thus reducing the environmental impact of that sector, which is methane generated by rotting solid waste or from waste water treatment.

Palm oil mills have large amounts of organic waste products in the form of solid biomass and waste water.

The solid biomass is typically used as fuel in mill, but there is more biomass waste than needed for energy production, and a large fraction of the waste is dumped.

The Palm oil mill effluent is the organic rich waste

water from the palm oil milling process and is typically treated in open anaerobic lagoons with high emissions of methane.

The typical CDM projects in the sector include:

- Composting of the solid biomass and/or parts of the waste water to produce a higher quality of organic fertiliser than by applying the solid waste directly.
- Production of biogas from the palm oil mill effluent.
- Production of power from the solid waste and use of the electricity either in industries like palm oil refineries or sale of electricity to the grid.

All these project types support the principles of Roundtable for Sustainable Palm Oil—a consultative process including NGOs, palm producers, users of palm oil and investors. Further to these specific benefits of the palm projects within the CDM, the whole CDM process is contributing to RSPO principles of transparency by requiring stakeholder meetings and annual publication of the monitoring reports of the projects.

Finally it is a requirement to be eligible for CDM that the palm oil mills are complying with the local environmental legislation. The impact of the financial incentive to get the CERs issued by the EB is usually much more compelling than enforcement by local authorities.

Working closely with the palm oil sector, it has been a strong encouragement to experience how the CDM has changed the attitude towards environmental projects and also to see how new and environmentally friendly technologies are being implemented at a much larger pace than before.

**Do you want to write a Guest Commentary for CDM&JI Monitor?** Don't hesitate to contact the editor at [jm@pointcarbon.com](mailto:jm@pointcarbon.com)

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**Explanations to table p. 1**

- 1 New since 30 April 2008.  
2 Including 47 projects being requested the review by EB, 6 projects under review, 42 projects with corrections requested, 63 rejected and 15 projects withdrawn.  
3 Total number of methodologies submitted to the UNFCCC, including Afforestation/Reforestation (A/R) and small-scale methodologies. Revised versions of previous submissions are not included.  
4 Including 10 A/R methodologies, 3 AR-AMS (Approved Small Scale) methodology, 33 AMS small-scale and 14 ACM consolidated methodologies approved.  
5 Methodologies which status is currently "B", which means they have to be revised and resubmitted to the UNFCCC.  
6 Methodologies which have gotten a "C" not approved by the CDM Executive Board. Including 20 A/R methodologies. In addition, 34 methodologies have been withdrawn.