As voluntary carbon market participants brace themselves for the effect of the global slowdown, Christopher Cundy reports on how the market’s earlier problems are being addressed.

These are anxious times for the voluntary carbon market. Participants are making good progress in addressing many of the problems that had dogged voluntary carbon trading and are hopeful of reducing the number of scandals to which it has been prone. But they are nervous about the impact of global recession on buyer appetite, and growing maturity brings issues of its own.

Growth has certainly been strong with participants expecting a doubling or tripling of the market in 2008 compared with the previous year. According to New Carbon Finance (NCF) estimates, volumes reached 150 million tonnes in 2008 with a value approaching $1 billion. That is still small compared with the Clean Development Mechanism (CDM), where the London-based analyst company estimates that $19.8 billion of primary and secondary trading took place in 2008.

However, with a global recession under way, the worry now is that corporate buyers, which account for the bulk of demand for offsets, will ditch their carbon-neutral services and products, or rein in their corporate purchases.

Offset prices did fall in the last quarter of 2008, with NCF’s voluntary carbon index for November/December dropping 14% to $7.50 a tonne of carbon dioxide equivalent, from $8.70/t for September/October. But, so far, market participants claim that demand has not crashed.

Roger Williams, San Francisco-based vice president of portfolio development at US project developer Blue Source, says: “We finished the year on a great note. There has been anticipation of a slowdown: we haven’t seen much of that, but I’m not saying it’s not going happen.”

Offsetting emissions remains one way to differentiate a product, especially when climate change issues come to the fore. An example of this was when the Obama administration is yet to act on emissions and with a new global agreement to be hammered out in Copenhagen in December.

For example, during a challenging start to 2009, Motorola still saw fit to launch a carbon-neutral mobile phone, offset via US-based Carbonfund.org.

And any decision to backtrack on a corporate climate target could be hugely damaging. “Those who have made a commitment are bound by what they have declared in their corporate neutrality programme. They might try and achieve those goals in more cost-effective ways. But offset purchases will remain an important part of the programmes,” says Lisa Ashford, global head of voluntary and new markets at UK-listed developer EcoSecurities.

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But on the whole, participants in the voluntary carbon market have made great strides in clearing the cupboard of skeletons. Buyers and sellers now understand that an offset must meet a certain standard, guaranteeing that it really does reduce greenhouse gas emissions. Registries have been launched to track the issuance, trading and retirement of credits (see box).

Last year, some leading offset providers grouped together under the International Carbon Reduction and Offsetting Alliance (ICROA), imposing policies on its members on how to run an offset retailer. US market participants have also converged around the two-year-old Carbon Offset Providers Coalition.

Gassner at First Climate says: “We are moving from having our own particular standards to industry-wide standards. The market has made a big leap in terms of quality.”

But, with a multiplicity of standards and registries, there is a concern that uncertainty could be being replaced by confusion. Some consider this a drag on development.

“The abundance of standards prevalent in voluntary markets is not sustainable and further development of the voluntary market would be helped by a consolidation and harmonisation of current work practices,” says a report on carbon market infrastructure by Bank of New York Mellon and Point Carbon, published last December.

However, that view is not universally shared. Jonathan Shoplpy, managing director of the UK-based CarbonNeutral Company, notes that the market is still young and part of its role should be to encourage innovation. “It’s good to have innovation and I worry that we are trying to choose the winner too quickly,” he says.

And besides, he argues that there is not a plethora of standards – he cites the Voluntary Carbon Standard (VCS), the Gold Standard and the CDM, the California Climate Action Registry (CCAR) protocols and VER+ and “others that are really not being taken much advantage of, or like Climate, Community & Biodiversity Alliance (CCBA) or Plan Vivo, used as bells-and-whistle add-ons to VCS”.

Somewhat more disparagingly, the infrastructure report notes: “Large parts of the voluntary market do not satisfy transparency,
Registries – ticked off?

If 2008 was the year when voluntary carbon standards established themselves, then 2009 should be the year for their registries. Buyers need assurances about the origin of their offsets and that they are not sold more than once, but tracking credit flows is complex and becomes fiendishly so as offset trading grows. Registries address the traceability issue and help transparency by recording where a credit has come from and where it has gone.

By and large, registries have been established alongside the parent standard. VER+—established by German verification firm Tüv Sued, has its companion BlueRegistry, and the Gold Standard has engaged US firm APX to run its version. The California Climate Action Registry has the Climate Action Reserve, also operated by APX. Others exist independent of standards, such as the American Carbon Registry.

As might be expected for a well-resourced mandatory scheme, the Clean Development Mechanism (CDM) has a robust registry system, so those using CDM credits as offsets should have few concerns.

But the voluntary market’s most popular standard, the Voluntary Carbon Standard (VCS), is lagging. The VCS Association announced in July 2008 that it had selected four providers—two major financial institutions, Bank of New York Mellon and Caisse des Dépots, and two specialists—APX and TZ1—and had appointed APX to run its central registry, anticipating a launch in September.

But six months on, details of how the system will work were still being thrashed out and there was still no launch date. “There are a lot of details and it’s a complicated architecture. We are trying to get it right,” says VCS Association CEO David Antonioli.

In the meantime, the details of TZ1 and APX’s services are set out in the table below.

Bank of New York Mellon, an expert in custody services that established a registry to handle VCS credits in 2005, declined to comment on its plans.

“We are still negotiating our relationship with the VCS. It’s not clear how those discussions will pan out. That’s not to say we are exciting carbon registries, and we are committed to the carbon market,” a London-based spokesperson said.

French bank Caisse des Dépots has plenty of registry experience, having supplied its Synergis system for Kyoto Protocol accounting to more than 10 countries, and tailoring a version for Paris-based carbon emission exchange BNEF Next. It administers the French national registry. However, it too declined to comment about its VCS registry, other than to say it would be multilingual, with French, English, German and Spanish language support.

Time will tell how the two financial giants fare against the two nimble newcomers. But whoever wins out, participants are eagerly waiting the kick-off.

Lisa Ashford, global head of voluntary and new markets at UK-listed developer EcoSecurities, says having VCS registries “is going to make all internal processes easier” by streamlining delivery procedures and helping with auditing. “[Voluntary carbon] will become a much more of a tradable product. That should mean more volumes.”

“It’s bound to speed things up and improve liquidity,” says Grattan MacGiffin, London-based head of voluntary carbon markets at brokerage MF Global, noting that the traceability of each tonne will make it easier for projects to be sold off in chunks, rather than in one lot, as tends to happen currently.

Antonioli says the registry system will provide “a critical element of transparency. It will also create a lot more trust in the market. It will strengthen, or at least underpin, demand.”

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<tr>
<th>Providers’ background</th>
<th>Fee schedule</th>
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<tbody>
<tr>
<td>Developed first registry in 2000 (for Texas renewable energy credits)</td>
<td>Set-up: Not disclosed</td>
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<tr>
<td>looped $500</td>
<td>Annual access: $500</td>
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<tr>
<td>Issuance: $0.05</td>
<td>Transfer: $0.02</td>
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<tr>
<td>Other registries: Gold Standard, California Climate Action Reserve, North American Renewables Registry, five other US state renewable energy credits markets, central VCS registry</td>
<td>Retirements: No fee</td>
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Web address: [www.apx.com](http://www.apx.com) [www.tz1market.com](http://www.tz1market.com)

1 Project developers, VCS-approved validators and verifiers and non-transacting NGOs are exempt from annual fee
2 Per tonne of carbon dioxide
3 A Voluntary Carbon Unit (VCU) is a VCS-certified offset

liquidity and standardisation criteria required to be viewed as efficient markets.”

The situation has certainly not been helped by delays in establishing the VCS registries (see box). Of all the standards, VCS has perhaps the widest support and recognition from project developers, buyers, intermediaries and other stakeholders. Although the number of credits issued and in the pipeline is uncertain (a side-effect of the lack of a central registry), VCS accounted for the largest share of the market—29%—according to suppliers polled for the New Carbon Finance/Ecosystem Marketplace State of the Voluntary Carbon Markets 2008 report. Anecdotal reports suggest 10 million–20 million credits have been created under VCS rules.

While some participants are pushing to commoditise the voluntary carbon credit, arguing that it is the best way for the market to make a meaningful contribution to climate change, many remain circumspect. They believe that the market should remain “bespoke.”

A typical corporate buyer of VERs will specify a project type, location, standard and vintage. “If the credits don’t fit the buyers’ demands, there’s no point in knocking off a dollar—they just won’t buy them. In pretty much every VER deal, the buyer wants to see photographs of the facility, and in some cases they want to visit it in person,” says Grattan MacGiffin, London-based head of voluntary carbon markets at brokerage MF Global.
Corporate offsetters require this narrative because they are likely to publicise their choice of offset project, and need a good story to tell. Some will even try to match their footprint with an appropriate project. But top-flight credits — those from projects in least developed countries with good sustainability and social characteristics — are priced higher than commoner types, such as those from Chinese hydroelectric power projects or Indian wind farms.

Standard and project type are the main influences on credit price, and the VCS aims to provide a ‘vanilla’ standard for carbon.

“The more developed buyers are getting much smarter, especially if cost is an issue. They might buy 50% of their credits from a vanilla project and 50% from projects that are socially compelling,” says Ashford at EcoSecurities.

For such socially compelling credits, many look to the Gold Standard. Established by a group of NGOs in 2005, the Gold Standard credit was once, as one market participant described, “mythical”. Everyone knew about them, but since so few projects had been registered, credits were hard to find.

That could be set to change in 2009. Jasmine Hyman, director of programmes and partnerships at the Geneva-based Gold Standard Foundation, says the pipeline of projects now exceeds 200, with a 51:49 split between VER and CDM projects. The average size of a project, in terms of carbon dioxide emissions saved, is around 75,000 tonnes a year.

The organisation is hiring seven ‘local experts’ to promote the standard across the developing world. Also encouraging says Hyman, is the number of projects that are retroactively seeking Gold Standard accreditation. “It indicates that project developers that didn’t think Gold Standard was important have come back.”

In the US, the California Climate Action Registry is also gaining traction. Created by state law in 2001 as a repository for greenhouse gas emissions data, the organisation is now an independent NGO, promoting reporting and offsetting standards.

CCAR takes a slightly different approach to the CDM and other project-based methodologies, assessing projects against a performance standard. These standards are emission benchmarks for a whole project type, against which individual projects can measure emission reductions. This avoids the subjectivity inherent in other standards, says president Gary Gero, and makes project implementation simpler.

“Do that is a lot more work up-front. It requires that we go out and assess what’s going on in an industry, which can take up to 18 months. At present, there are only three methodologies — for projects in landfill gas, animal manure biogas and forest conservation and reforestation — which are only applicable in the US.

But the market has valued CCAR credits highly (averaging $8.20/t in recent months against $6.20/t for VCS credits, according to NCF’s November/December figures) perhaps because of its links to future mandatory regimes, which makes the credits more appealing to ‘pre-compliance’ buyers. California’s AB32 emissions reduction framework — which will introduce a cap-and-trade programme from 2012 — considers CCAR activities to qualify as voluntary early actions, and Gero says the organisation is working hard to get California to use CCAR infrastructure as part of a state emissions trading programme. He says CCAR is also “in a unique position” to support the Western Climate Initiative, a cap-and-trade programme covering seven US states, including California, and four Canadian provinces.

“We are designing and implementing a market that meets all the needs of the regulatory environment. And, yes, we are talking to people at the federal level,” Gero says, noting that the recent Warner-Lieberman bill suggested that the US Environmental Protection Agency should look to CCAR when designing a federal programme.

So far, CCAR has approved three projects, received paperwork from 37 and has issued 500,000 offset credits. Issued credits are set to grow to 1.5 million by June 2009 and 4.5 million by June 2010, Gero says.

New methodologies are planned for industrial gases, transportation and land use, but it will avoid sectors most likely to be covered by a mandatory cap, such as electricity generation. CCAR recently announced it would expand its activities to Mexico and Canada, and Brazil and Indonesia have shown interest in its forestry standard, according to Gero.

CCAR was also the first offset standard to be recognised by the VCS, meaning that its offsets can be converted into VCS credits (but not vice versa). “VCS gives us a platform of integrity to reach a broader audience,” Gero says.

Also in the US, volumes at the Chicago Climate Exchange (CCX) continue to grow. The exchange was a pioneer with its voluntary, but legally binding cap-and-trade programme that, between 2003 and 2008, has registered approximately 57 million tonnes of offsets from 125 projects.

CCX credits are marketed cheaper than offsets verified to other standards — bilateral trades were completed at an average of $4.20/t in November/December, according to NCF figures, and were trading at less than $2/t on the exchange in mid-January — and commentators have criticised the robustness of the offset methodologies. The CCX has taken some steps to tighten up its offsets, recently banning the sale of historic vintage credits from soil-sequestered carbon projects.

However, the CCX is more aligned with likely US regulation than much of the rest of the voluntary carbon market, which has largely eschewed sequestration credits.

Growing interest across the US market could also spark resurgence in forestry and land-use projects, with many market participants expecting them to be included in a federal offset programme — making them attractive to pre-compliance voluntary market traders.

The first ever carbon offset deal involved an investment in forest preservation, but the sector fell out of favour as concerns grew over the permanence of the credits — for example, what happens if a forest burns down or is logged? — and over monitoring issues.

The 2007 UN climate change conference in Bali pushed forestry back up the agenda, after the sector was largely left out of the Kyoto Protocol, despite tropical forest destruction accounting for about 20% of global greenhouse gas emissions.

A handful of forestry-specific standards, such as Plan Vivo and CarbonFix, have been established, but it is the CCBA, now with three registered projects and 19 in its pipeline, that is most frequently mentioned.

The VCS launched a framework for agriculture, forestry and other land uses (AFOLU) in late 2007 and, almost a year later, Terra Global Capital announced it had submitted the first avoided deforestation methodology for validation to the VCS. The World Bank’s BioCarbon Fund has also published a methodology for estimating emission reductions from reducing mosaiic deforestation.

“We have got demand for good quality forestry projects,” says Gassner at First Climate.

“The whole market has communicated VCS as the quality standard but there are only forward credits available. We are looking forward to seeing first VCS forestry credits being verified in the second or third quarter of 2009.”

But he may be waiting longer than expected. One of the major bottlenecks in the CDM is the availability of project validators and verifiers, which are simply swamped with work. These same firms are being engaged on voluntary projects.

“If we want to prove legitimacy, there is a cost in terms of price and delay,” said Kate Hamilton at Washington, DC-based information provider Ecosystem Marketplace, in a briefing last year. And, say observers, this poses a risk to the voluntary carbon market. As money gets harder to come by, could buyers become less willing to pay for quality?