



Future in the forests

ROBERT HRUBES EXAMINES THE ROLE THAT FOREST CARBON OFFSETS COULD PLAY IN A FUTURE US CARBON MARKET

As the US moves steadily towards national climate legislation, forest carbon offsets are poised to play a significant role in any future cap-and-trade market. Although federal climate legislation is still under development, the currently proposed US climate regulations designate a specific and prominent role for forestry. The American Clean Energy and Security act, HR 2454 (also known as the Waxman-Markey bill after the Congressmen who introduced it), which was passed by the House of Representatives in June, earmarks 5 per cent of its 4.6 billion carbon permits towards preventing deforestation. The Senate version of the bill, Senators John Kerry and Barbara Boxer's Clean Energy Jobs and American Power act, has a nearly identical section on forestry. The bill includes a list of projects that are a "priority consideration" – including reforestation, forest management, and harvested wood products. These developments have cast a spotlight on forest carbon offsets leading to a surge of investment and project development in recent months.

Any US cap-and-trade regime is likely to rely heavily on forest carbon offsets for a number of reasons, some of which are unique to the country. As the world's top industrial greenhouse gas (GHG) emitter, the US needs a large supply of cost-effective offsets to reduce its emissions. Forest carbon offset projects have a lower cost than other offset project types and can potentially provide a large volume of carbon credits.

Another factor pointing to a reliance on forest-based offsets is the fact that the US has ample supplies of available land and forests that can be managed to increase carbon sequestration. This ability to provide offsets from domestic sources is particularly relevant when one considers that pending climate legislation contains provisions that require

a large portion of offset projects to be located within the US. Waxman-Markey calls for half of carbon reductions to come from domestic projects, while Kerry-Boxer would require 75 per cent of offsets to be domestic.

Though not above some dissenting perspectives, the political climate in the US also favours forestry as a mitigation method. Farm and forestry groups have strong representation in Congress and will likely have great influence on any climate legislation that comes out of Washington. Thus, any bill that emerges is likely to contain provisions that are aimed at meeting the needs of the farm and forestry lobby.

Forest carbon offset projects are also popular with the US public, because, in addition to climate mitigation, they can deliver timber production, biodiversity enhancement, and recreational benefits, among other ecosystem services. Moreover, because forest carbon projects are labour intensive, requiring ongoing monitoring and measurement, they also support President Barack Obama's "green jobs" agenda.

While it is clear that forestry will play a major role in any US cap-and-trade system, what is less certain is which existing forest carbon offset standards might be adopted under any federal scheme. The eventual selection of standards to be grandfathered into the legislation will have important implications for investors, project owners and carbon credit purchasers. 2010 is likely to be an eventful year for the forest carbon offset business in the US as project investment increases, new standards are implemented, and the legislative picture becomes clearer.

The country's legislature will most likely adopt existing forest carbon offset protocols that are proven to provide a credible framework for measuring, managing and verifying GHG emissions reductions. While there are a number of

offset protocols competing to be accepted by lawmakers, the current thinking is that the Climate Action Reserve (CAR) and Regional Greenhouse Gas Initiative (RGGI) are the most likely programmes to be included. Current language in the proposed legislation clearly points to acceptance of CAR and RGGI. After CAR and RGGI, the Voluntary Carbon Standard (VCS) also appears poised to gain eventual acceptance under a regulatory scheme. In particular, as RGGI and CAR are US focused, VCS looks to be the standard of choice for international forest offset projects that meet the country's requirements.

As the CAR protocols are viewed as a 'pre-compliance' option, project developers have moved aggressively into the arena of CAR forest projects. The long awaited CAR forest project protocol 3.1 was adopted in October. The protocol was created with the goal of increasing "clarity, accuracy, conservatism, environmental integrity, and cost effectiveness" specifically for forest carbon offsets. It attempts to address some of the problems, such as permanence issues, that emerged with forest projects under the UN's clean development mechanism (CDM) and under other voluntary offset standards. Additionally, unlike the CDM, which focused solely on afforestation and reforestation, the CAR protocols allow for projects in avoided conversion of forests into other uses, improved forest management, as well as reforestation.

Both the CAR protocol and VCS attempt to address the issue of permanence, which is of particular concern for forest projects as the carbon storage in forests can be reversed if the forest is damaged or harvested. The CAR protocol requires a legally binding commitment to maintain project activities for 100 years and requires long-term monitoring and verification. Both it and the VCS also have a built-in insurance system, requiring a buffer pool of credits from each issuance to be held in reserve to cover any unplanned loss of trees.

Long-term restrictions on project owners have been a major hurdle for participation by landowners. Many landowners are simply not willing to give up certain rights to their land for what amounts to a multi-generational time period. CAR has addressed this concern by including an option for terminating the project. Under the CAR protocol, if a landowner decides to harvest or otherwise change land use, which results in a removal of trees in excess of what was incorporated in the project characterisation, they are required to purchase offsets to compensate for the reversal. This allows a project developer to buy their way out of the project, while ensuring that the climate benefits remain.

Another innovation in the CAR protocol is the accounting for carbon stored in harvested wood products. It provides guidance for accounting for the average amount of carbon expected to remain stored for 100 years. This method accounts for carbon dioxide (CO₂) emissions from the decomposition or disposal of wood products.

Because the protocol is a performance standard with set

methodologies, it streamlines the processes for measuring project performance. There is no need to conduct project-by-project additionality assessments, as is the case in the CDM. The hope is to reduce some of the delays CDM projects have faced in gaining approval. It also avoids delays associated with the often slow process of submitting and gaining approval for new proposed methodologies.

The CAR forest projects are currently generating the highest price premium of the voluntary standards – \$6–10 a tonne compared with \$0.2–\$5.5/t. The demand for CAR forest projects is also a result of its designation as a pre-compliance standard in both pieces of pending federal climate legislation. Moreover, California's Global Warming Solutions act – which will introduce a carbon cap-and-trade scheme in the state from 2012 – includes the California Climate Action Registry protocol, which was approved by the California Air Resources Board, and serves as the basis for the CAR protocol.

Although there is no national legislation in place in the US, there are nonetheless clear signs that can guide carbon traders and offset project developers. Landowners can start

Landowners can start to explore their options for projects based on the various protocols likely to be adopted

to explore their options for projects based on the various protocols that are likely to be adopted. Project owners should select a protocol as a guideline based on project credibility, price premium and pre-compliance. Investors in offsets should consider similar criteria when they decide on projects to invest in.

By preventing deforestation, improving forest management and increasing reforestation, forest carbon offsets can play a positive and significant role in helping address climate change. Deforestation is one of the major contributors to global climate change, representing up to 20 per cent of total GHG emissions. According to the US Environmental Protection Agency, forests, urban trees and agricultural soils in the country currently offset approximately 12 per cent of the nation's CO₂ emissions from the energy, transportation and industrial sectors.

As pending US legislation drives the development of more forest carbon offset projects, significant opportunities will arise for project owners, investors, and permit purchasers. A robust forest carbon offset standard will be a crucial part of making sure the market is transparent and that projects are credible. ●

Robert Hrubes is the senior vice president at Scientific Certification Systems, a US-based environmental sustainability auditor and verifier

Email: RHrubes@scscertified.com

