



Carbon Pulse



CARBON MARKET BOARD

A new way to trade on
AirCarbon Exchange

CLICK HERE TO
SCHEDULE A DEMO

(<https://bit.ly/3Jinwnu>)

News and intelligence on carbon markets, greenhouse gas pricing, and climate policy

Americas > ANALYSIS: Do offset registry revenue models offer perverse incentives to over-credit?

ANALYSIS: Do offset registry revenue models offer perverse incentives to over-credit?

Published 13:03 on March 20, 2023 / Last updated at 13:03 on March 20, 2023 / Americas, International, Nature-based, US, Voluntary / No Comments

Recent allegations of widespread over-crediting in the voluntary carbon market (VCM) have raised questions of whether the dominant revenue model of offset standards bodies financially incentivises those involved to maximise issuance while compromising integrity.

Recent allegations of widespread over-crediting in the voluntary carbon market (VCM) have raised questions of whether the dominant revenue model of offset standards bodies financially incentivises those involved to maximise issuance while compromising integrity.

The environmental integrity of carbon offsets in the VCM has come into focus in 2023 after media articles and academic papers alleged numerous instances of over-crediting within Verra-registered REDD+ avoided deforestation undertakings (<https://carbon-pulse.com/188182/>) and Gold Standard (GS) and CDM-developed clean cookstove projects (<https://carbon-pulse.com/195650/>).

This has caused some VCM participants to halt credit sales (<https://carbon-pulse.com/189380/>) from affected projects and deepened an ongoing loss of buyer confidence (<https://carbon-pulse.com/181420/>) in REDD+ offsets – as reflected in lower credit prices (<https://carbon-pulse.com/195450/>) and activity (<https://carbon-pulse.com/195192/>) – though registries have contested the accuracy of the investigations (<https://carbon-pulse.com/189728/>), and Verra has pledged to undergo (<https://carbon-pulse.com/191924/>) a sweeping revamp of its practices that predates recent media reports.

A common thread underlying offset issuances across the VCM is registries' revenue models, wherein self-regulated firms get paid through their business of issuing verified emissions reduction (VERs) credits based on methodologies for which they charge fees to approve.

Most registries that function as non-profit organisations issue carbon credits while operating on a \$/credit revenue model, ratcheting up issuance fees as they award VERs.

The more credits the certifiers pump out, the more money comes back to them in fees, boosting their coffers and potentially providing a financial incentive to overlook problems that could interrupt that income stream, in turn risking irreputable damage to efforts many see as crucial in tackling emissions.

“The \$/credit fee structures encourage maximum credit issuance and financially discourage efforts to restrict over-crediting, so this revenue model – whether for-profit or non-profit – contributes to core structural problems in the voluntary carbon markets,” Danny Cullenward, research fellow with American University's Institute for Carbon Removal Law and Policy, told Carbon Pulse.

Pricing per credit can vary, and publicly advertised fees are garnered through the life of an offset project that uses registry-approved protocols and methodologies to calculate the number of VERs eventually doled out.

Carbon Pulse has assessed registry issuance fees for the four main VCM standards bodies – Verra, GS, American Carbon Registry (ACR), and Climate Action Reserve (CAR) – along with related fees to review methodologies, validate, verify, and convert units (see table below).

ISSUES WITH ISSUANCES?

Elias Ayrey, co-founder and head scientist of offsets rating agency Renoster, estimated VCM over-crediting to sit at around 75% of total issuance.

A total of nearly 1.5 billion VCM credits have been issued thus far according to the Climate Focus dashboard, with Verra's Verified Carbon Units (VCUs) making up nearly 1.1 bln – or 71.7% – of total offsets distributed.

GS follows with a 16.5% share of the VCM, ACR with a 6.1% market share, and CAR with 5.2%.

Verra's net assets nearly quadrupled (<https://carbon-pulse.com/194038/>) between 2019 and 2021 as carbon credit issuances spiked, with levies from the organisation's various carbon and co-benefits standards amounting to \$37.5 mln for the firm in 2021 – some 92% of its revenue – according to financial statements.

In the US, registered non-profits are required to reinvest profits at the end of the year into growth, not pay dividends to shareholders, and lack an executive compensation scheme typically seen in for-profit organisations.

“Non-profit status is a tax status, not proof of ethical behaviour or aligned incentives,” Cullenward noted.

While increased revenue might not directly factor into worker pay-cheques or shareholder dividends, a healthy income from maximum issuance would still be welcome to a non-profit in securing business, while offering salaries capable of attracting and retaining top talent.

Maximising revenues could also be tempting as these entities seek to invest in developing and enhancing their offerings, or look to maintain and grow their market share and influence in an increasingly competitive marketplace.

Analysis firm AlliedOffsets tracked 17 registries that list offset projects spanning 150 countries, signalling the heightened competition that the historic ‘big four’ have come under of late.

Over-crediting issues aren't just recent developments, however. SourceMaterial's recent investigation identified 2011 filings in Verra's registry showing how developer South Pole had estimated 52 mln tCO₂ abatement from its Kariba REDD project in Zimbabwe (VCS ID 902), with Verra ultimately signing off on revised figure of 197 mln (<https://carbon-pulse.com/189380/>).

In response to Carbon Pulse inquiries, Verra CEO David Antonioli said that the firm had not considered switching away from the present \$/credit revenue model.

“If someone were to show up and write me a cheque to run the organisation on a yearly basis for many years to come, certainly we'd consider it, but the reality is that you've got to keep the lights on, and you've got to be able to hire good people,” Antonioli added.

Jamie Ballantyne, Gold Standard director of marketing and communications, similarly defended the offset certifier's revenue model, citing the absence of any philanthropic, government, or private actor that would fund private companies towards a commercial market mechanism.

“The standard model for certifying commodities is a levy per unit,” Ballantyne said in an extensive emailed statement to Carbon Pulse.

Ballantyne detailed that Gold Standard saw no evidence that its current fee model incentivised over-crediting, while outlining safeguards put in place such as independent approval of methodologies by a non-remunerated Technical Advisory Committee (TAC) and independent certification decision making.

Ballantyne also highlighted GS's membership of ISEAL Alliance – a leading voice on governance in sustainability systems.

Mary Grady, president and CEO of the Environmental Resources Trust (ERT) at Winrock International – ACR's operator – also referred to the \$/credit model as being common practice across global carbon markets.

“While we are always open to exploring new approaches, we are not aware of any alternative revenue models that would be acceptable in the market, nor do we believe that an alternative would be free from similar criticism of incentivising certain outcomes,” Grady said, refuting the notion that \$/credit revenue models were to blame in over-crediting.

ACR does not earn activation fees on the offset volumes associated with credit deductions for uncertainty, leakage, or buffer pool contributions, but rather only on emission reduction or removals credits that are issued and eventually activated for transfer or retirement, Grady noted.

Additionally, all ACR methodologies are approved through a blind, scientific peer-review, independent process to ensure the rigour in the carbon accounting, and all projects are independently verified by an accredited validation and verification body (VVB) for conformance with the ACR standard and applicable methodology, Grady reiterated.

While ACR states it issues offsets for free, the firm's \$0.15/offset activation fee for ACR-issued credits, in addition to \$0.02/offset in transfer fees and \$0.02/offset in retirement fees, are essentially \$/credit fees generated through the issuance/retirement process.

CAR has not responded to Carbon Pulse questions by time of press on whether the \$/credit issuance model facilitates over-crediting.

“A RACE TO THE BOTTOM”

Although registries point to numerous safeguards built in the system to suppress the perverse incentive to over-credit, critics see deeper flaws with the process.

“I think in either a [for]-profit model or a non-profit model, if your payment depends on something that requires your own assessment that’s just a basic problem,” said Peter Riggs, director at non-profit climate justice advocacy Pivot Point.

The current revenue model enables and is what drives what Riggs called a “race to the bottom”, which he believes reveals companies that are complicit in that kind of behaviour, but also showcases companies that avoid holding questionable, “crap credits”, instead opting for higher quality offsets.

Thomas Day, researcher at think-tank NewClimate Institute, echoed Riggs’ sentiment that the \$/credit revenue model facilitates the race to the bottom mentality.

“The business model of \$/credit for offsetting claims was supposed – in theory – to lead to the maximum implementation of mitigation projects in the most cost-effective manner,” Day said.

“In reality, it creates a race to the bottom for the integrity of carbon credits and the credibility of offsetting claims; over-crediting is just one of the many ways in which this [issue] manifests,” he added.

Incentives lie not just with project developers creating protocols and methodologies, the non-profit registries remunerated by approval of protocols and offset issuance revenues, but everybody involved in the system getting paid for certifying offsets, Renoster’s Ayrey argued.

“Project developers, put forward their own numbers, verifiers considered independent, get paid, of course, by the project developers to do this verification, and there’s no real incentive for them to find flaws,” he said.

In Cullenward’s view, the absence of any meaningful VCM regulatory framework or enforcement agenda was more important, but the \$/credit business model was still a factor that encouraged this race to the bottom.

“I see the methodologies and revenue models as symptoms of broader quality problems, not the root causes of those problems. That said, a system in which financially interested market proponents write their own rules, subject to ‘oversight’ from registries that take per-credit fees, is one in which no one has an incentive to protect the atmosphere,” Cullenward stated.

However, Franck Gbaguidi, senior analyst, energy, climate & resources at political risk consultancy Eurasia Group, held a slightly differing opinion that the \$/credit revenue model was not a factor per se causing over-crediting.

“The underlying issue is threefold: unreasonable and imperfect baseline assumptions that are triggering over-crediting, lack of methodology standardisation among VCMs that is further fuelling over-crediting, and insufficient review and monitoring of current methodologies,” Gbaguidi told Carbon Pulse in an emailed statement.

The Integrity Council for the Voluntary Carbon Market (IC-VCM) this month **intends to publish** (<https://carbon-pulse.com/188196/>) its Core Carbon Principles (CCPs) and Assessment Framework for identifying high-quality carbon credits.

Existing offset standards bodies will need to receive accreditation both at the programme level and crediting level in order to receive CCP certification.

POTENTIAL SOLUTIONS

While the \$/credit issuance model has dominated over the lifespan of the VCM, several observers offered potential fixes that could reduce the risk of over-crediting going forward.

Laurie Wayburn, president at non-profit conservation land trust Pacific Forest Trust, said the offset registries that provided accounting to compliance systems had some level of oversight that was the basis for being more reliable.

For example, California regulator ARB has its own set of compliance protocols to vet registry offset credits (ROCs) from ACR and CAR for eligibility under the state’s WCI-linked cap-and-trade programme, though researchers recently **found substantial over-crediting** (<https://carbon-pulse.com/194477/>) within the scheme’s improved forest management methodology.

Wayburn proposed a system similar to the US “ENERGY STAR” programme, which would likely be developed and maintained by the US Environmental Protection Agency (EPA), even for international projects.

The US EPA awards ENERGY STAR certification to products that meet certain criteria of energy efficiency, scoring 75 or higher on EPA’s 1–100 scale.

This would mean registry-approved methodologies would have to pass a quality test prior to credit distribution, and have a layer of oversight on issuance levels.

Riggs suggested minimising the role of intermediaries in the VCM issuance process as a means to reduce the incentives that promoted over-crediting.

The key term, Riggs stressed, was “disintermediation”, which contrasted against the \$/credit revenue model of offset certifiers.

Riggs believed the frontier for innovation was in formulating agreements with community monitoring protocols, and that part of the reporting was not just about carbon but about livelihoods.

Carbon indicators, biodiversity indicators, and livelihood indicators, all in one package was a solution Riggs floated, with the involvement of Indigenous people to co-design and co-manage these products in ways that were consistent and enhancing of their livelihoods.

“The scale needs to tip towards the Article 6.8 non market approaches, with a global registry, all transactions taking place on a public registry, no dark trades, and better limits on retirement or encouraging retirement, but also the subsequent use of credits,” Riggs suggested.

Article 6.8 is a yet-to-be-operationalised provision that recognises non-market cooperative approaches among nations to promote mitigation and adaptation, with specifications for a web-based platform to record and exchange information on non-market cooperation.

In this scenario, Riggs was of the view that there would be less need for registries’ skill in external verification of carbon, but the standards’ community engagement and land management competence would remain relevant.

Steve Suppan, senior policy analyst at non-profit advocacy Institute for Agriculture and Trade Policy (IATP), believed a shift to jurisdictional crediting with no more individual offset issuances – but rather an averaging of credits – would drive more standardisation in the VCM.

A more robust use of buffer accounts could also have some impact on balancing instances of over-issuance, Suppan added.

To Renoster’s Ayrey, the solution to reduce VCM over-crediting was simple.

“Somebody needs to be paid throughout the process to be financially incentivised to find issues with these projects or issues with the protocols” Ayrey said.

As an example, Ayrey pointed to Google’s bug bounty programme that paid hackers to submit flaws in the software giant’s applications.

“I think the fundamental question is whether incumbent registries are capable of raising the bar, given their long history in, and financial commitment to, problematic market segments, or whether it will take new entrants to change the dynamics,” Cullenward concluded.

Gbaguidi said there was still a large consensus among VCM market participants that non-profits were best placed to run VCM registries given their legal status, longstanding advocacy efforts, and internal know-how.

“But their credibility will be undermined if overestimation issues continue to arise,” Gbaguidi cautioned.

“This threat will lead many registries to pause, regroup, and work toward more high-quality, high-integrity credit schemes. They will do so because their very existence is at stake.”

Non-exhaustive registry fee breakdown:

Fee Category	Verra (https://verra.org/wp-content/uploads/Program-Fee-Schedule_v4.1.pdf)	GS (https://globalgoals.goldstandard.org/fees/)	ACR (https://americancarbonregistry.org/how-it-works/membership/acr-fee-schedule/acr-fee-schedule-january-2021.pdf)	CAR (https://www.climateactionreserve.org/how/program-resources/program-fees/)
Account fees	\$500 account opening \$0.10/credit, max \$10,000 registration	\$1,000 account annual \$2,500 account reactivation	\$500 account opening \$500 annual account	\$500 account set up \$500 reactivation \$500 annual maintenance \$200 project account set-up \$200 project account maintenance annual
Issuance fees	\$0.025/credit >10 mln \$0.05/credit <10,000 \$0.14/credit 10,001 to 1 mln \$0.05/credit conversion \$1,500/event retroactive label	\$0.15/credit GS VER \$0.30/credit GS VER subsequent issuance \$0.05/credit GS CER \$0.10/credit GS CER subsequent issuance \$0.15/credit renewal period annual avg.	‘free’ issuance \$0.15/offset activation \$0.02/offset transfer \$0.03/offset cancellation \$0.02/offset retirement	\$0.19/credit issuance \$0.03/credit transfer \$0.03/credit cancellation
Project/Methodology fees	\$2,000 methodology application, non-refundable	\$500–\$3,500 preliminary review \$0.05–\$0.15/credit project design review	\$2,500 review new methodology \$7,500 review new & modified ACR methodology	\$700 ARB CCO \$500 Reserve protocol

	\$13,000 methodology processing \$1,500 methodology revision application \$6,000 methodology revision processing	\$650–\$4,500 performance review \$0.10/credit or \$500 design change (whichever greater) \$1,000 deviation reconsideration	\$750 ARB CCO \$1,500 ARB ODS second verification \$1,000 project listing ACR methodology \$0.08/offset project transfer	\$1,350 project variance review \$500 project transfer
Expert review fees	\$375	\$50/hour additional review \$2,500 expedited review	TBD scientific peer-review	
Validation Verification Body fees	\$2,500 annual	\$5,000–\$20,000 validation \$2,500 additional VPA validation \$1,500–\$2,500 annual verification		

Source: Verra, GS, ACR, CAR; excluding discounts and rebates.

By Joan Pinto – joan@carbon-pulse.com

<https://www.carbonpulse.com/ehrc/c2/r/m/a/2/a/%20costs/%20revenue/%20model/%20offer/%20project/%20incentive/%20to/%20over>
Edit