Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

Carbon Direct

The Navigator

Distilled insights to navigate rapidly evolving carbon markets | July 2024



Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

CONTENTS

Letter from the Editor . . . 3

Market insights . . . 4

Current market trends . . . 4

Recap of 2024 second quarter . . . 4

Recent announcements . . . 8

Developments in international voluntary carbon market standards . . . 10

First methodologies approved by the Integrity Council for Voluntary Carbon Markets . . . 10

What we're watching in markets . . . 11

The scope 3 carbon credit debate . . . 11

Science insights . . . 13

Methodology review . . . 13

Verra's new VM0047 methodology for forestation . . . 13

Key advances over old Verra ARR methodologies . . . 13

What's happening now . . . 15

What buyers need to know . . . 15

What we're watching in science . . . 16

Cascade Climate . . . 16

Policy insights . . . 17

United States federal policy developments . . . 17

White House releases principles to guide the voluntary carbon market . . . 17

United States state-level policy developments . . . 19

Policy developments in California . . . 19

Policy developments in Massachusetts . . . 20

International policy developments . . . 20

Navigating Article 6 and corresponding adjustment risk . . . 20

What we're watching in policy . . . 23

Climate policy vs. elections around the world . . . 23

Green Claims Directive . . . 24

USDA seeks input on the Growing Climate Solutions Act . . . 25

Credits and Disclaimer . . . 27

Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

Letter from the Editor

On April 9, 2024, the Science Based Targets initiative (SBTi) Board announced that carbon credits could be used for scope 3 reduction targets. We were all glued to our screens as a wave of debates broke (page 11). Three days later, it was all over. The anticlimactic outcome: the SBTi will roll out a consultation on the topic. Despite the drama, I realized it might have been better to just wait for the dust to settle.

This issue of *The Navigator* is a chance to see how key developments have settled across the carbon markets space. Activity in the US carbon policy arena has continued at a quick pace. The White House introduced principles to guide the voluntary carbon market, aiming to enhance integrity and transparency (page 17). At the state level, California and Massachusetts have significant new bills designed to drive net-zero emissions targets and bolster carbon removal initiatives (page 19).

The market is rapidly evolving with the influence of frameworks such as the ICVCM and VCMI (pages 10 and 18). Internationally, discussions on Article 6 have advanced but won't be resolved any time soon. We've developed a framework to help think about Article 6 risks in the meantime (page 20).

This quarter in science, we've highlighted the significant advances contained in Verra's new VM0047 methodology for forestation (page 13). This new methodology, with its dynamic baselines and improved leakage accounting, has important implications for forestation projects, both in terms of quality and credit volumes. Let us know if you want to see more material like this!

Thank you for reading this second issue of *The Navigator*. As with the pilot, we sought to distill key carbon market, science, and policy developments from the quarter, paired with insights from our team of experts. The goal is to help you better navigate this complex landscape.

We're here to accelerate climate progress—please let us know how we can make this report even more useful to you next quarter.

Bodie Cabiyo, PhD
Editor and Senior Scientist

Market insights

Current market trends

Recap of 2024 second quarter

VOLUNTARY CARBON MARKET TRENDS

Demand. Demand for carbon credits started strong in the first quarter of 2024, with about 50 million tonnes retired during that period. However, this momentum has dwindled in the second quarter of the year, with only about 30 million tonnes retired. Despite this quarterly dip, overall demand in 2024 remains strong. In the first half of 2024, 82 million tonnes were retired, up from 77 million tonnes retired in the first half of 2023 (**figure 1**). Our projections from last quarter remain on track, indicating that total carbon credit demand for 2024 will likely exceed that of 2023.

Supply. The voluntary carbon market (VCM) remains strong on the supply side. However, there has been a sizeable drop in REDD+ issuances as developers prepare for Verra's new consolidated REDD methodology, VM0048, and a drop in renewable energy (RE) issuances (**figure 1**).

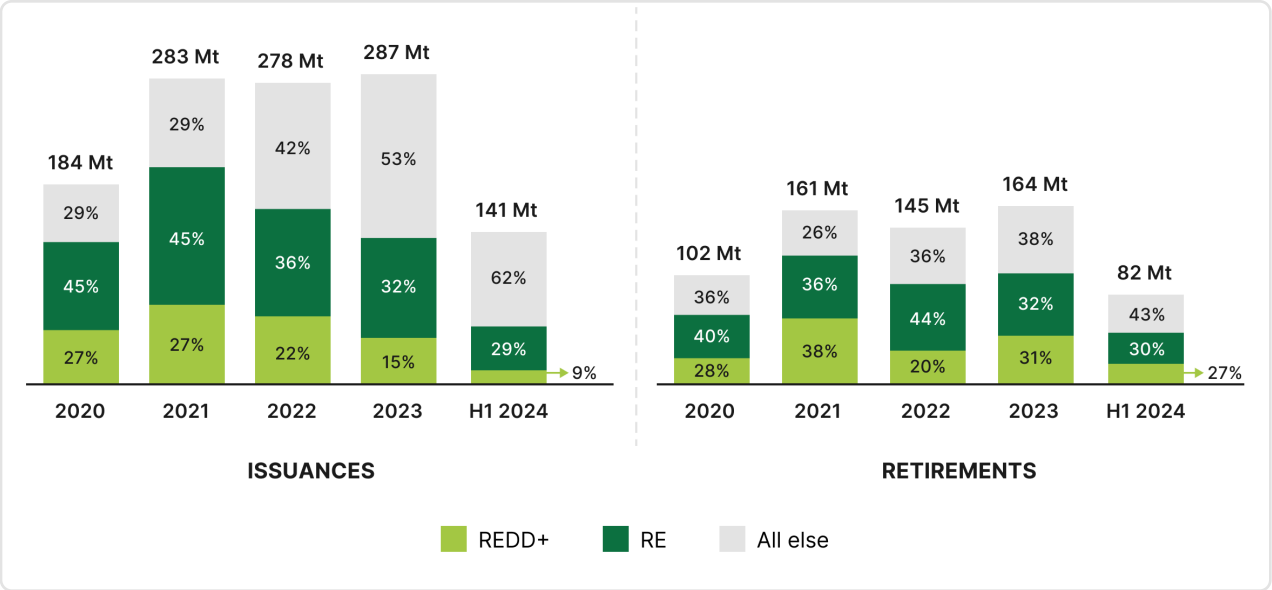


Figure 1. Percentage of issuances and retirements by credit category. Note: Numbers as tracked in American Carbon Registry, Climate Action Reserve, Gold Standard, Verra. We include Art Trees Registry's retirements from 2023 onwards. Note: Mt = million tonnes, RE = renewable energy.

NATURE-BASED CARBON DIOXIDE REMOVAL MARKET TRENDS

Demand. 2024 has seen strong growth in demand for nature-based carbon dioxide removal (CDR) credits. Demand surpassed 4 million tonnes in the first quarter, and 1.6 million tonnes have been retired in in the second quarter of the year.. Overall, nature-based CDR retirements in the first half of the year have almost doubled compared to the same period last year, and are already equating to 75% of the total volumes retired in 2023. Unless demand dramatically slows down in the second half of the year—which we do not expect to happen—2024 is poised to be a record-breaking year for nature-based CDR demand.

Supply. Nature-based CDR credits still make up the majority of the CDR market. In 2023, they represented 97% of the total carbon removal issuances. We have also seen growth in nature-based CDR supply driven by a surge in Mexican improved forest management (IFM) projects. In 2022, IFM projects represented about 9% of issuances and 3% of retirements from all nature-based CDR projects. In the first half of 2024, they represented about 27% of issuances and 17% of retirements (**figure 2**).

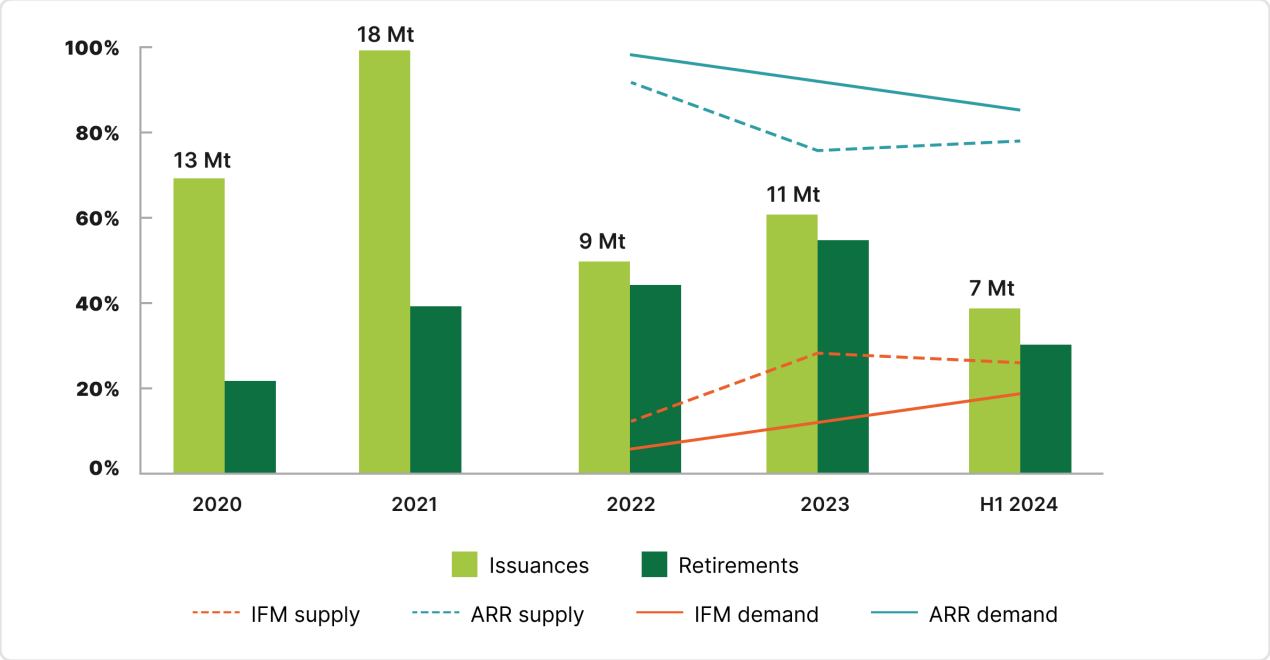


Figure 2. Nature-based CDR credits issuances and retirements across four registries: American Carbon Registry, Climate Action Reserve, Gold Standard, Verra. Note: ARR = afforestation, reforestation, and revegetation; IFM = improved forest management; Mt = million tonnes.

HIGHER-DURABILITY CARBON DIOXIDE REMOVAL MARKET TRENDS

Demand. In terms of retirements, demand for higher-durability CDR credits has continued to increase dramatically in 2024. For example, demand for biochar is up threefold compared to the first half of last year. However, this higher-durability CDR market is still significantly smaller than the nature-based CDR credit market. In 2023, around 8 million tonnes of nature-based removals were retired, while only 100,000 tonnes of higher-durability credits were retired, which is equivalent to just under 1% of the volume of nature-based retirements.

Pre-purchases and offtake agreements are the most significant indicator of demand for higher-durability CDR. Cumulative volumes of pre-purchases and offtake agreements are an order of magnitude higher than retirements (**figure 3**). Although the first quarter of 2024 started slow compared to 2023, the second quarter saw large carbon credit offtake agreements from two bioenergy with carbon capture and storage (BECCS) projects. Specifically, Microsoft's purchases from Exergi and Ørsted have already made 2024 a record-breaking year (**figure 4**). Microsoft continues to lead as the largest buyer of higher-durability CDR by far, representing 74% of the prepurchase and offtake volumes seen in the first half of 2024.

Actual retirements of higher-durability CDR are still very low compared to pre-purchases. In the first half of 2024, CDR credits from projects that store carbon dioxide underground were retired for the first time: 44,000 tonnes from an ethanol with carbon capture and storage project operated by Red Trail Energy and 156 tonnes from Climeworks' direct air capture (DAC) plant, Orca. In the second quarter of 2024, Climeworks became the first provider of DAC credits to be certified under the Puro Standard.

74%

Microsoft continues to lead as the largest buyer of higher-durability CDR by far, representing 74% of the prepurchase and offtake volumes seen in the first half of 2024.

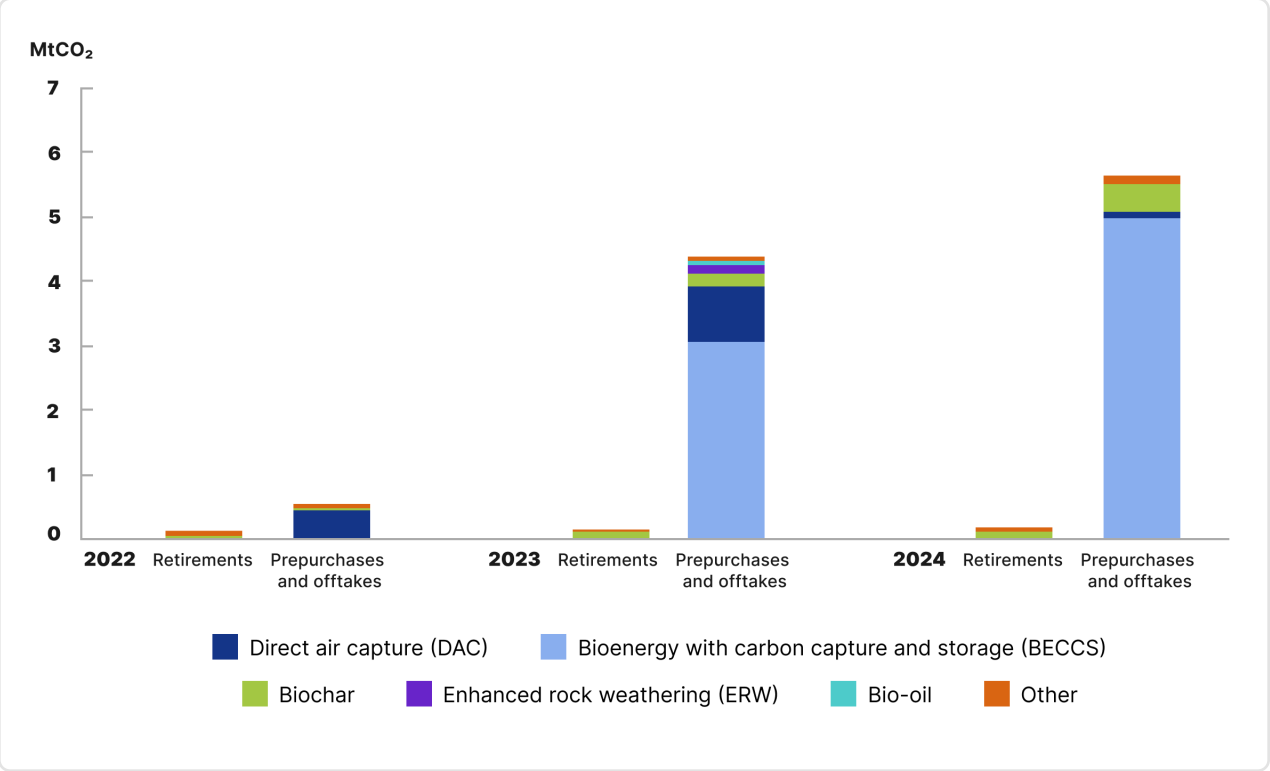


Figure 3. Retirements of higher-durability CDR credit compared to pre-purchases and offtakes. Source: Data from retirements is across two main registries: puro.earth and C-Sink Registry. Data for pre-purchases and offtakes is provided by CDR.fyi under license. Note: Mt = million tonnes.

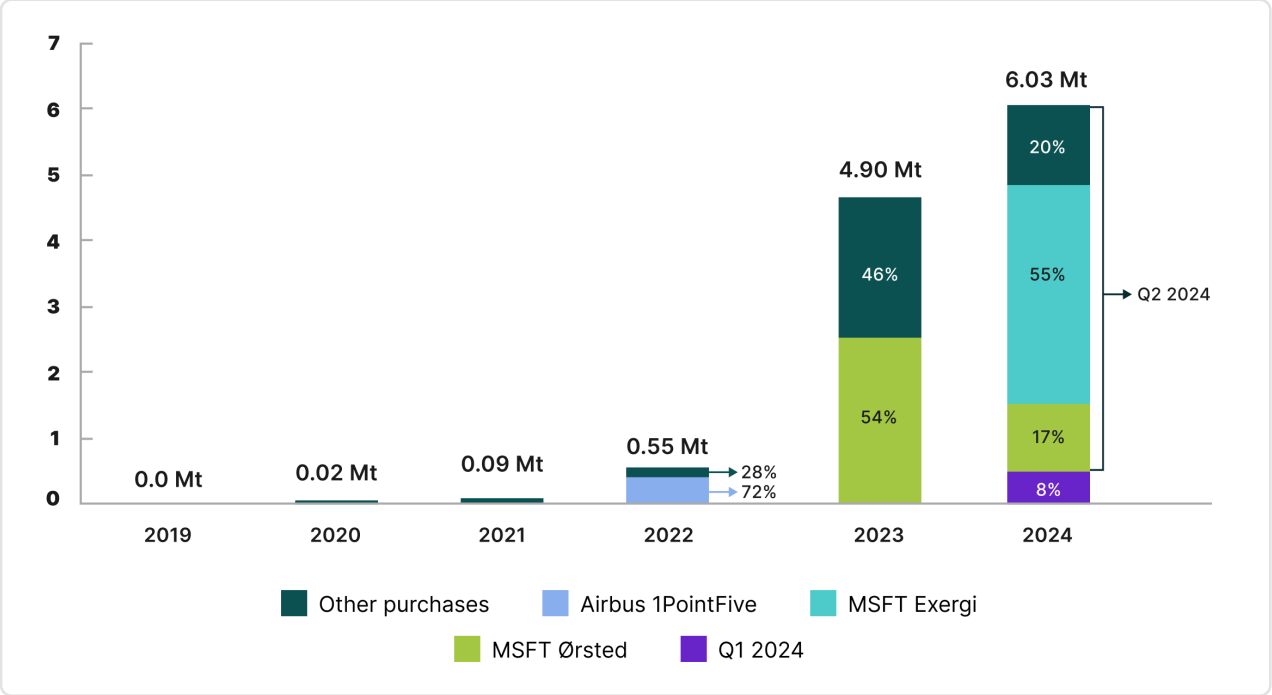


Figure 4. Pre-purchases and offtakes of higher-durability CDR. Source: Data provided by CDR.fyi under license. Note: Mt = million tonnes.

Recent announcements

Below is a run down of recent announcements in the carbon market including selected funding rounds raised by technology developers, backing of funds investing in the CDR market, and relevant funding opportunities by public or private bodies.

FUNDING ROUNDS RAISED BY TECHNOLOGY DEVELOPERS

In the second quarter of 2024, numerous deals were announced by DAC technology developers alongside significant raises from startups operating in ocean-based and enhanced rock weathering (ERW) CDR markets. The proliferation of fundraising activity around DAC solutions remains strong—representing over US$100 million in the second quarter of 2024—but does represent a slight drop in key funding announcements since the first quarter. Carbon Direct monitors the capital raised by CDR suppliers and technology providers and notes the following developments:

- **DAC**
  - 280 Earth (headquartered in the US) raised US$50 million to develop its DAC plant in Oregon.
  - Ion Clean Energy (headquartered in the US) raised US$45 million to develop

its liquid amine carbon capture technology.

- AirMyne (headquartered in the US) raised US$6.9 million to develop its DAC technology.
- Sirona Technologies (headquartered in Brussels) raised $6.4 million to develop its DAC pilot plant in Kenya.

- **Mineralization**
  - Neustark (headquartered in Switzerland) raised US$69 million to expand its operations and develop its mineralization technology.
  - Metalplant (headquartered in the US) raised US$3.7 million to develop its ERW technology.
- **Direct ocean removal**
  - Captura (headquartered in the US) raised an additional US$23.5 million, building on its initial raise in January of US$21.5 million, reaching a total of US$45.3 million for its Series A.

ADVANCED MARKET COMMITMENTS

Symbiosis Coalition, a nature-based advanced market commitment initiated by Google, Meta, Microsoft, and Salesforce, was announced in May 2024. Symbiosis has pledged to contract for 20 million tonnes of high-quality, nature-restoration CDR by 2030.

CAPITAL RAISED BY FUNDS

France Valley announced a US$214 million fund for afforestation, reforestation, and revegetation (ARR) projects in Europe.

FUNDING OPPORTUNITIES

The DOE announced 24 semi-finalists for its CDR Purchase Pilot Prize (total prize funding US$35 million). The semi-finalists are set to receive a total of US$1.2 million to scale their technologies.

Developments in international voluntary carbon market standards

First methodologies approved by the Integrity Council for Voluntary Carbon Markets

In June 2024, the Integrity Council for Voluntary Carbon Markets (ICVCM) announced the first carbon credit methodologies that meet its Core Carbon Principles (CCPs). These include three methodologies for ozone depleting substances (ODS) projects and four methodologies for landfill gas (LFG) projects. Combined, these methodologies cover an estimated 27 million carbon credits, or 1.5% of the total credits on the market.

Another 27 categories of carbon credit methodologies remain under active assessment, with decisions expected to be announced through the end of 2024. For carbon removal buyers, decisions on key categories such as IFM and ARR are expected in the coming months, following ICVCM Governing Board review of findings from Multi-Stakeholder Working Groups.

It remains to be seen how the ICVCM will deal with project categories that exhibit a high degree of variability in quality. For example, in an assessment of more than 500 unique projects, Carbon Direct found that only **9%** of ARR and IFM projects met or exceeded our criteria for high-quality carbon removal, with **49%** not passing review. In addition, many ARR and IFM projects on the market today fail to meet the CCPs requirements of a 40-year permanence period and 20% buffer pool contribution.

BOTTOM LINE

Buyers should actively monitor ICVCM announcements over the course of the year, particularly ahead of COP29 in November 2024. Carbon Direct does not expect decisions on key hybrid or engineered CDR solutions, such as biochar or DAC, to be announced before the last quarter of 2024, but will continue to monitor developments on this front. For nature-based CDR solutions, buyers could assess the alignment of project types in their portfolio with specific CCPs permanence requirements to understand potential impacts.

Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

What we're watching in markets

The scope 3 carbon credit debate

Debates sparked by the Science Based Targets Initiative (SBTi) earlier this year on carbon credit use are likely to reverberate through 2024. In April 2024, the SBTi Board of Trustees announced that it intended to allow organizations to use environmental attribute certificates (EACs), including carbon credits and renewable energy certificates (RECs) among other instruments, to help meet scope 3 reduction targets.[1] Following public debate and staff backlash, the SBTi walked back the decision, stating that any changes to SBTi standards will undergo a thorough review process as part of broader updates to their Corporate Net-Zero Standard. In July 2024, the CEO resigned, citing personal reasons. As part of the Corporate Net-Zero Standard updates, the SBTi will release a report in the third quarter of 2024 on the effectiveness of carbon credits in corporate climate targets. Stakeholders are invited to submit public feedback.

Responses to the Board's announcement have been divided. In the recently released Voluntary Carbon Markets Joint Policy Statement and Principles, the US Department of the Treasury and other federal offices indicated their support for the use of EACs to address scope 3 emissions, stating that demand-side guidance frameworks "should consider incorporating approaches that allow companies to count credits toward a portion of their scope 3 emissions [...] in cases where it would be unreasonable to expect a company to be able to fully abate those emissions within a given timeframe." By contrast, in a letter submitted to the SBTi Board of Trustees in May 2024, the H&M Group expressed concern about the SBTi announcement, stating that "allowing companies to replace decarbonisation action with voluntary carbon market interventions would deter the investments and innovation we need to achieve systemic change" and "makes real decarbonisation efforts within value chains less attractive."

1. Under the proposed rule changes announced in April, organizations would be able to use EACs to claim that a reduction target has been achieved. This is distinct from using carbon credits or EACs as part of a beyond value chain mitigation strategy to address residual emissions in a given year. Historically, the SBTi has not allowed carbon credits to be used toward reduction targets, making its announcement a strong departure from previous guidance.

Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

WHY IT MATTERS

New demand. Allowing organizations to use carbon credits toward reduction targets that are otherwise hard to achieve could unlock significant demand for carbon credits, deliver important near-term climate outcomes (where credits are high-quality), and help scale CDR. On average, scope 3 emissions account for more than 70% of businesses' carbon footprints. By some estimates, allowing organizations to use carbon credits to bridge the gap between target and actual emissions could result in 2.2 gigatonnes of demand by 2030. In addition, given that organizations often have limited influence over their scope 3 emissions, the use of EACs such as Sustainable Aviation Fuel Certificates or RECs may provide a more feasible—albeit indirect—pathway to address scope 3 emission sources.

>70%

On average, scope 3 emissions account for more than 70% of businesses' carbon footprints.

Moral hazard. The abundance of low-quality carbon credit supply along with a lack of clear guardrails and reporting requirements on the use of EACs raises concerns around moral hazard. For example, if organizations opt to purchase lower-cost EACs instead of investing in higher-cost decarbonization solutions needed to achieve long-term net-zero targets, it could result in delayed or reduced climate action. While these concerns may be remedied by specific guardrails or reporting requirements (e.g., demonstrating that all reasonable efforts were sufficiently made to reduce emissions in a given period before resorting to EACs), it is unclear what these will look like in practice. In addition, it is currently unclear what incentives may be implemented to ensure that organizations do not opt for low-cost, low-quality credits.

Science insights

Methodology review

Verra's new VM0047 methodology for forestation

Verra's new methodology, "VM0047 Afforestation, Reforestation, and Revegetation, v1.0," was released on September 28, 2023. This new methodology replaces Verra's previous ARR methodologies (AR-ACM0003 and AR-AMS0007). Many new large-scale ARR projects are now using the VM0047 methodology. Verra will retire their older ARR methodologies and any existing ARR projects that are still using these older methodologies will be required to adopt VM0047 at the end of their current crediting period.

Key advances over previous Verra ARR methodologies

- Dynamic benchmarking matches and monitors the project's additionality by utilizing statistically comparable control plots located within a 100 km radius of the project area. This approach replaces fixed, static baselines with dynamic baselines that measure biomass growth through geospatially monitored stocking indices. Growth is monitored continuously in control plots located outside of the project area and in treatment plots located within the project area to demonstrate additionality according to dynamic, real-time conditions rather than historical conditions. The method improves accuracy by adapting to external factors, which strengthens the integrity and credibility of generated carbon credits.
- A new leakage module, VMD0054 v1.0, substantially increases estimates of activity shifting and market leakage resulting from ARR activities. The module considers both area-based and market leakage whereas older methodologies only consider area-based leakage. The module also enhances transparency by focusing on lost productivity from prior agricultural land use over three years or one crop rotation, whichever is longest. Unlike past ARR methodologies, which lack a specific timespan, VM0047 requires a detailed analysis of past land use. This increases the certainty

of leakage deductions. However, the methodology does not account for positive leakage, such as slope stabilization and increased soil carbon stocks. Therefore, it may lead to overly large deductions in certain cases.

Table 1. VM0047 advances over previous Verra ARR methodologies

	Old methodologies (AR-ACM0003 and AR-AMS0007)	**New methodology** (VM0047)	**Why it matters**
Baseline	Employs a step-by-step method to determine the baseline scenario and prove the additionality of project activities—a fixed baseline is established for the entire crediting period	Utilizes a dynamic baseline with continuous monitoring and updating of project plots and comparable control plots within a 100 km radius Does not specify which datasets to use, leading to variability in the quality of baseline inferences	Using a dynamic baseline significantly changes the credit generation mechanism because the baseline responds to ecological, regulatory, and market forces in "real time" which helps to prevent over-crediting.
Additionality	Project area must have remained non-forested for at least 10 years before the project start date	10-year, non-forested requirement does not exist for most projects, instead dynamic baselines are used to ensure recently deforested areas will only be compared to other recently deforested areas	The new methodology will impact what lands can produce credits, opening up credit generation to recently deforested land. Depending on the accuracy of the dynamic baseline, this may result in positive or negative incentives to landowners.
Carbon stocks	Carbon dioxide equivalent of tree biomass = 0.50, root-shoot ratios: 24%	Carbon dioxide equivalent of tree biomass = 0.47, root-shoot ratios: 22% (aligned with more conservative scientific research)	The new methodology will reduce the amount of credits issued across all projects.
Types of leakage considered	Area-based leakage	Area-based leakage and market-based leakage Default 15% leakage deduction, unless developers demonstrate otherwise using local values	The updated leakage methodology will will have a big impact. Changes will likely result in fewer VCUs issued and will encourage project developers to minimize their leakage deductions through using alternatives to default values that match better local conditions.
Min. buffer pool contribution	10%	12%	The new methodology will reduce credit issuances of credits for all projects.

What's happening now

Many large ARR projects are currently using VM0047. Notably, both Re.green and Mombak, two of the biggest ARR projects of their class, are using the new methodology. The use of VM0047 by these early, large projects may set a precedent for its use in future ARR projects. However, no credits have been issued under the VM0047 methodology to date. Furthermore, Carbon Direct has heard murmurs of project developers considering other methodologies instead of VM0047, partially because of the uncertainty associated with dynamic baselines. It is still uncertain if it will be the leading standard for ARR methodology in the future, though few alternatives offer comparable versatility and credibility today.

In 2023, the ABACUS Verified Carbon Unit (VCU) label was proposed as an addition to VM0047. It will be released in July. The ABACUS label, spearheaded by Amazon along with a consortium of academics, NGO partners, and industry experts, represents a significant step forward in the certification of carbon offset projects under VM0047. Notably, the ABACUS label is expected to exclude plantations, emphasizing ecosystem restoration over monoculture forestry. Moreover, it introduces potential incentives to exclude the leakage deduction in favor of full leakage-avoidance strategies, aiming to enhance the integrity and effectiveness of carbon offsetting initiatives.

What buyers need to know

- **Adopting VM0047 may reduce a project's overall crediting volume due to new dynamic baselines and revised leakage accounting.** Dynamic baselines allow credit generation to respond in real-time to environmental, regulatory, and market changes. The dynamic baselines used by VM0047 aim to detect such changes and prevent excessive credit issuance, assuming control and project plots are well-matched. Additionally, significant changes to leakage accounting and more conservative carbon stock measurements will likely reduce the number of VCUs issued.
- **Dynamic baselines make long-term crediting difficult to predict, as annual credit volumes will vary based on control plot performance.** Forward contracts for specific credit volumes under VM0047 are uncertain because the impact of dynamic baselining on VCU issuance is unpredictable, influenced by both project changes and external factors beyond the developer's control. This uncertainty poses risks for both buyers and developers alike.

Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

What we're watching in science

Cascade Climate

Cascade Climate is a global nonprofit dedicated to speeding up advancements in open-system climate interventions that have notoriously thorny monitoring, reporting, and verification (MRV) challenges, such as marine CDR or ERW. For the last several months, Cascade has focused on the development of a Community Quantification Standard (CQS) for MRV in ERW projects. The development process for the CQS has leaned heavily on expert input, including many academics and NGO scientists. Cascade's stated role is to support the creation of an independent standards body to maintain and update the CQS, rather than becoming a standards body itself. However, Cascade may be pivoting their current objective away from a CQS for ERW and toward more foundational guidance on ERW quantification. This pivot is, in part, due to deep uncertainty in the science of MRV for ERW. The CQS work Cascade has been pursuing is an important test of the state of open-systems MRV, particularly of standards writing for ERW.

WHY IT MATTERS

Cascade is the first trial of a truly independent, not-for-profit standards developer. Cascade does not register, sell, verify, or otherwise partake in any carbon market activity. They are also entirely funded through grants or donations, which helps avoid misaligned incentives. The insights gleaned from Cascade's initial attempt at writing a CQS will inform the viability of their model of independent standards creation and produce learnings that can be applied by other methodology development bodies.

Additionally, the outcome of the ERW CQS is, in some ways, a referendum on the viability of implementing MRV for ERW with sufficient rigor and certainty to produce CDR credits. Early indications suggest that the scientific uncertainty in measuring ERW outcomes is high enough to undermine the CQS. Much is still unknown about specific outcomes resulting from the Cascade CQS process and how those will be received by the CDR community. Still, the outcomes are likely to have important implications for ERW development and potentially for open-system MRV more broadly.

Policy insights

United States federal policy developments

White House releases principles to guide the voluntary carbon market

On May 28, the White House, in coordination with the US Departments of Treasury, Energy, and Agriculture, released a set of seven core principles for Responsible Participation in Voluntary Carbon Markets. These principles include support for strengthening credit quality, increasing benefit sharing, addressing environmental justice concerns, urging credit purchasers to prioritize reductions before offsets, increasing transparency, enhancing market integrity, and enhancing market efficiency.

This initiative is a response to investigations that found many credits in the VCM were delivering much less than they promised. These findings have highlighted the need for clearer quality standards and increased transparency in the market. The lack of clarity on what constitutes a high-quality credit, coupled with a shortage of such credits, has been a significant factor holding back the growth and effectiveness of the VCM. By establishing these principles, the US government aims to address such issues, boost confidence in the market, and accelerate climate impact.

The announcement of these core principles broadly aligns with recent VCM developments and with Carbon Direct's *Criteria for High-Quality Carbon Dioxide Removal*. That said, a few things stood out to us:

- The principles largely reflect—and borrow from—existing frameworks like ICVCM and the Voluntary Carbon Markets Integrity Initiative (VCMI). In particular, the ICVCM's CCPs have clearly played an influential role in the development of the White House principles, the Commodity Futures Trading Commission's proposed guidance for voluntary carbon credit derivatives, and a recent USDA proposal (see discussion below in "What we're watching in policy"). The fingerprint of the CCPs on these policies suggests a close interplay between federal policymaking and voluntary frameworks.

- There are multiple references to jurisdictional-scale crediting throughout the announcement. This indicates a continued interest in jurisdictional programs from the White House, echoing John Kerry's ambitious and widely debated Energy Transition Accelerator, which aims to mobilize corporate finance for jurisdictional-scale energy transitions. Among other features, large-scale jurisdictional programs have the potential to substantially increase the supply of credits in the market.
- The announcement took a clear stand on the recent, divisive issue of using credits for scope 3 abatement targets raised by the SBTi. Citing VCMI, the announcement directly called out SBTi to consider the use of credits "in cases where it would be unreasonable to expect a company to be able to fully abate those emissions within a given timeframe." The White House is, surprisingly, taking an early stand on a timely, difficult issue.

The White House announcement signals where future government regulation of the VCM might be headed. It builds out a vision of an expanded VCM, including the use of credits against scope 3 emissions and jurisdictional-scale programs. Nothing in the White House announcement is mandatory for private entities. Still, it indicates a clear set of interests and priorities that are likely to ripple through the VCM.

BOTTOM LINE

While these principles are not mandatory for private actors, they are likely to significantly influence the VCM. The federal government's endorsement of these principles and positions may encourage wide adoption, similar to how government standards have been embraced in numerous other industries.

United States state-level policy developments

Policy developments in California

Table 2. State-level policy developments in California, first quarter of 2024

Bill	Summary	Status
CA SB 308 Net Zero Greenhouse Gas Emissions Goal	This bill mandates the California Air Resources Board to develop regulations ensuring carbon dioxide removals equal to 100% statewide emissions by 2045. The bill aims to achieve net zero greenhouse gas emissions by 2045 through carbon dioxide removal and regulations.	As of June 2024, the bill is being considered in the Senate Natural Resources Committee. The California legislature adjourns August 31st.
CA AB 2331 Voluntary Carbon Market Disclosures	This bill makes several amendments to the recently passed AB 1305, most important one being a clarification of the date of enforcement—which will be January 1, 2025. The bill also clarifies that "voluntary carbon offset" does not include a renewable energy certificate (REC) issued through a governmental regulatory body or a low-carbon fuel standard (LCFS) credit.	As of July 2024, the bill is being considered in the Senate Appropriations Committee.
CA SB 1036 Voluntary Carbon Offsets: Business Regulation	This bill, as introduced, was identical to SB 390 which made it all the way to Governor Newsom's desk before being vetoed. The original text amends the state's false advertising laws to make it illegal to market, sell, verify, certify, or maintain on a registry a carbon credit if a person knows, or should know, that a credit is unlikely to be quantifiable, real, and additional or fails to adequately disclose the credit's durability.	In May, California SB 1036 passed the Senate, but the bill died when the lead Sponsor, Senator Monique Limón requested that the Assembly Natural Resources Committee withdraw the bill from consideration ahead of a key hearing. Large project developers like Anew advocated against the bill.

Policy developments in Massachusetts

This quarter, the most promising state-level policy development related to CDR is in Massachusetts: MA SB 2096 Carbon Dioxide Removal Leadership.

- **Summary:** Establishes a state-administered procurement program to catalyze carbon dioxide removal. Directs the Massachusetts Clean Energy Center, a state economic development agency dedicated to accelerating the growth of the clean energy sector, to create a pilot program through which the state will make advanced commitments to purchase carbon removal from a wide range of sources.
- **Status:** Reported favorably by the Joint Committee on Telecommunications, Utilities, and Energy referred to the Senate Committee on Ways and Means. The bill was accompanied by S2531 on June 17, 2024. The Massachusetts legislature adjourns July 31st.

International policy developments

Navigating Article 6 and corresponding adjustment risk

WHERE DOES ARTICLE 6 STAND TODAY?

The Supervisory Body of the United Nations Framework Convention on Climate Change's Paris Agreement Crediting Mechanism (PACM), commonly referred to as Article 6.4, adopted the Appeal and Grievance Procedure during the April and May 2024 meetings. This procedure establishes safeguards for those affected by activities under PACM, specifically carbon credit activity participants, industry stakeholders, and Parties of the Paris Agreement. These safeguards include the establishment of a process for appealing decisions of the Supervisory Body and avenues for filing grievances against projects or programs of PACM. The adoption of this procedure is an indication that the Supervisory Body is reflecting on past and existing concerns around the implementation of carbon credit projects as well as the programs and markets they exist in.

Further progress was made on the development of PACM at the Bonn Climate Change Conference in mid-June. Constructive discussions were held on several key aspects of

Article 6 of the Paris Agreement, including “carbon credit authorization, activity scope, [and] the international carbon market registry.” The delegates at Bonn agreed to reconvene for a workshop to “further progress technical work on Article 6.2 and 6.4” in preparation for COP29, which will be hosted in Baku, Azerbaijan in November of this year.

CASE STUDY: CORRESPONDING ADJUSTMENT RISKS IN THE EUROPEAN UNION

The full operationalization of the PACM is years away, but the potential outcomes are finite. One key risk for buyers is the implementation of corresponding adjustments. Corresponding adjustments are accounting mechanisms of the Paris Agreement that aim to prevent double counting on emissions accounting ledgers of private and public entities.

The European Union (EU) is a valuable case study to understand the range of possible outcomes with corresponding adjustments, given its complex regulatory and political environment. The three scenarios below capture a range of potential outcomes for the use of carbon credits, organized from most- to least-likely.

Scenario 1: Credits can only be used across national lines within a defined region

What happens: The EU decides to operate as a single entity and does not require corresponding adjustments for the transfer of credits between member states.

Implication: Companies within the EU can use credits purchased from projects in any member state against their emissions under the EU Emissions Trading System (ETS) without the need for corresponding adjustments. This would likely increase the demand for EU-based carbon credits and could lead to a more integrated carbon market within the EU.

Likelihood: Likely, because the EU has a history of implementing cohesive policies and regulations to manage its carbon market and emissions targets.

Scenario 2: Credits can be used outside of the country of origin regardless of region

What happens: The EU decides to enforce corresponding adjustments for all carbon credit transfers, including those within the bloc.

Implication: Companies that retire credits would need these emissions reductions to be correspondingly adjusted in the selling country's emissions balance. This could complicate the process and potentially reduce the attractiveness of intra-EU carbon credits, pushing companies to seek credits from projects with more straightforward accounting or in countries with less stringent rules.

Likelihood: Moderately likely, given the EU's commitment to environmental integrity and transparency. However, it could face pushback from businesses and member states seeking more flexible mechanisms to meet emissions targets.

Scenario 3: Credits can only be retired in the country of origin

What happens: The EU does not function as a unified bloc and one of its member states decides against making corresponding adjustments for carbon credits generated within its national boundaries.

Implication: This decision would shrink the market for international carbon crediting. It would also limit the attractiveness of carbon credits sourced or developed within that country while simultaneously limiting offsetting options for companies based in that country. It represents a high risk for credit buyers, however, highlighting the importance of regulatory clarity in forward offtake agreements.

Likelihood: Very unlikely, given a strong precedent of cooperation and EU-wide integration of emissions accounting through the EU ETS.

BOTTOM LINE

While the Paris Agreement does not regulate the VCM, the implementation of Article 6 will have a major influence on the participation of private and public entities in the VCM. The mechanical components of Article 6, such as corresponding adjustments, are likely to change the VCM landscape. These changes present risk that should be mitigated.

Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

What we're watching in policy

Climate policy vs. elections around the world

With at least 64 countries and the EU holding national elections this year, representing about 49% of the world's population combined, many are asking how climate policies will be impacted by changes in national leadership. The election outcomes in the United Kingdom (UK) and the EU will have an especially notable influence on climate and clean energy policies and initiatives due to shifts in priorities of the leading parties.

In the UK, the landslide win of the Labour Party, led by Sir Keir Starmer, brought 14 years of leadership from the Conservative and Unionist Party to an end. Despite a shift to the right of the political spectrum in Europe, the Labour Party rallied voters around its "restorative" approach for change while promising to support the clean energy transition and the UK's net-zero climate goals. This center-left party has big plans for supporting the clean energy transition such as establishing a new, publicly-owned company called Great British Energy that will "partner with industry and trade unions to deliver clean power by co-investing in leading technologies." The Labour Party's manifesto indicates support for a carbon border adjustment mechanism in the UK and mandated transition plans for financial institutions and FTSE 100 companies.

In comparison, the election for the European Parliament resulted in a decrease of seats for the Green Party and an increase in seats for more right-wing parties. The center-right European People's Party (EPP) maintained the majority of seats in the 720-seat assembly and has restated its commitment to the clean energy transition and to meeting the EU's 2030 and 2050 decarbonization goals, but with a more conservative approach that prioritizes economic competitiveness and energy security. For the EPP, this means halting implementation of the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD). The EPP Group is responsible for developing a position on the 2024–2029 mandate, which will influence the EU's strategy for climate policy going forward.

Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

WHY IT MATTERS

The results of the elections in the UK and EU have demonstrated a divergence in the prioritization of climate initiatives. The Labour Party is much more bullish on climate than the Conservative and Unionist Party in the UK, and are much more supportive of climate policy and initiatives when compared to the EPP in the EU. The EPP's proposal to halt the implementation of CSRD and CSDDD, policies that encourage climate-sustainable business practices and increased transparency of environmental impacts, is not beneficial to climate efforts. These results highlight how intertwined electoral politics and climate policy have become in recent years.

Green Claims Directive

The Green Claims Directive, which was adopted by the European Commission in March 2024, aims to protect consumers from greenwashing by making existing and future green claims reliable, comparable, and verifiable across the EU. The goal is to increase the transparency of companies' environmental and climate-related claims, both written and verbal. On June 17, 2024, the European Council announced a position on the Green Claims Directive.

The Council's position suggests that any green claim be verified by third-party, independent experts before it is published. However, it introduces exemption and support systems for micro enterprises and small- to medium-sized enterprises. The Council's position also introduces authentication requirements for climate-related claims, and proposes to allow companies to make offsetting claims, based on high-quality credits. This position includes an obligation "to provide information about the type and quantity of carbon credits, and whether they are permanent or temporary, among others." It includes a distinction between "contribution claims" (meaning the trader claims the purchase of carbon credits is not to be used against their own emissions footprint but rather to contribute to climate action) and "offset claims" (meaning the purchase of carbon credits is to counter their own emissions).

Before it is enacted into European law, the Green Claims Directive will undergo trilogue negotiations by the European Commission, Council, and Parliament, reviewing the positions of each entity. This process will be impacted by the recent elections and changes to the commission, parliament, and working groups that are yet to be determined.

Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

WHY IT MATTERS

If enacted, these requirements will affect public and private entities trading within the EU. Given the complex process and potentially sweeping impacts, the Green Claims Directive may chill VCM engagement in the near-term. The EU is a regulation-driven environment and much uncertainty remains. The fate of the Green Claims Directive will be impacted by the recent elections across the EU and within the European Commission. While direct implications of the election outcomes on the fate of climate policies are not yet clear, the Green Claims Directive may result in a slow down of corporate commitments, since the process of policy enactment will take at least two years.

USDA seeks input on the Growing Climate Solutions Act

On May 29, 2024, the USDA published a Request for Information asking the public to weigh in on "protocols that may be considered for inclusion in a new Greenhouse Gas Technical Assistance Provider and Third-Party Verifier Program." Responses to the request were due on June 28. The program is authorized under the Growing Climate Solutions Act (GCSA), part of the Consolidated Appropriations Act of 2023.

Establishing the new Greenhouse Gas Technical Assistance Provider and Third-Party Verifier Program is the next step in implementing the GCSA. The new program is intended to provide farmers, ranchers, and landowners with better technical assistance by supplying a list of qualified technical assistance providers and third-party verifiers who work with producers to generate credible carbon credits, enabling USDA to share trusted information and reduce market confusion. USDA would also list widely accepted VCM protocols designed to ensure consistency, reliability, effectiveness, efficiency, and transparency. The end result of the GCSA is, aspirationally, to grow the supply of high-quality, nature-based credits in the US.

WHY IT MATTERS

Carbon Direct believes this is a key step in promoting integrity and quality in the VCM, standing up the GCSA, creating new climate opportunities for the agriculture and forestry sectors, and ensuring carbon credits provide real climate impact. The initiative may have several potential downstream implications, including the possibility that USDA-favored methodologies may continue the drive toward government standardization. By listing "widely accepted voluntary carbon credit protocols," USDA will effectively be endorsing

Originally published as Carbon Direct, which is now Relae. Learn more at relae.co

specific methodologies that meet their criteria for “consistency, reliability, effectiveness, efficiency, and transparency.” Methodologies not selected for inclusion may face challenges in the market as they could be perceived as less credible or reliable.

There is also the potential for the GCSA to have broad policy implications. As discussed above, the White House is coordinating federal action across the Department of Energy, the USDA, and the Treasury to encourage quality standards in the VCM. Independent agencies like the CFTC have proposed rules that would contribute to a shared definition of quality in the VCM. Surprisingly, the fingerprint of the ICVCM CCPs can be seen throughout many of these federal policy initiatives, demonstrating their pervasive impact on shaping the definition of quality in the VCM.

Credits and Disclaimer

Report authors and contributors

Given the highly collaborative nature of Carbon Direct, many people contributed insights to this report beyond the list below. The following team members contributed substantially to developing this report.

Zara Ahmed, DrPH, Director of Policy and Science Operations

Sarah Braverman, Policy Analyst

Van Butsic, Principal Scientist

Bodie Cabiyo, PhD, Senior Scientist

Wilfried Maas, Chief Carbon Technologist

David Madrid Garcia, Senior Research Associate

Shirin Mavandad, Research Associate

Becca Morrow, Senior Research Associate

Sanna O'Connor-Morberg, Senior Science and Strategy Manager

Mila Stieglitz-Courtney, Senior Research Associate

Adrianna Sutton, Science Writer

Chi Thorsen, Creative Director

Britt Warthen, Brand Designer

Hattie Whittaker, Sustainability Associate

Thaddeus Woody, Policy Analyst

Disclaimer

This report is prepared by Carbon Direct for informational purposes only. It is intended solely for the private use of its recipients, who are under no obligation to act upon the information provided herein. The contents of this report, including but not limited to interpretations of policy, market trends, and any forward-looking statements, are based on the best judgment of Carbon Direct at the time of preparation and are subject to change without notice.

This report does not constitute financial, investment, legal, or tax advice, and should not be construed as such. Recipients are encouraged to consult with their own advisors before making any decisions based on the information contained herein. Neither Carbon Direct nor any of its affiliates, officers, directors, employees, or agents make any representation or warranty, express or implied, regarding the accuracy, completeness, or reliability of the information contained in this report, nor shall they be liable for any errors or omissions in the content or for any actions taken in reliance thereon. By accessing or using this report, recipients agree to release and hold harmless Carbon Direct and its affiliates, officers, directors, employees, and agents from any and all claims, damages, losses, liabilities, costs, and expenses arising out of or in connection with the use of or reliance on the information contained herein.

Carbon Direct reserves the right to amend, modify, or update this report at any time without prior notice. This disclaimer and any use of the report shall be governed by and construed in accordance with the laws of New York, and any disputes arising hereunder shall be subject to the exclusive jurisdiction of the courts of New York.