

VOLUNTARY CARBON MARKET

2024 H1 REVIEW



August 2024

INTRODUCTION

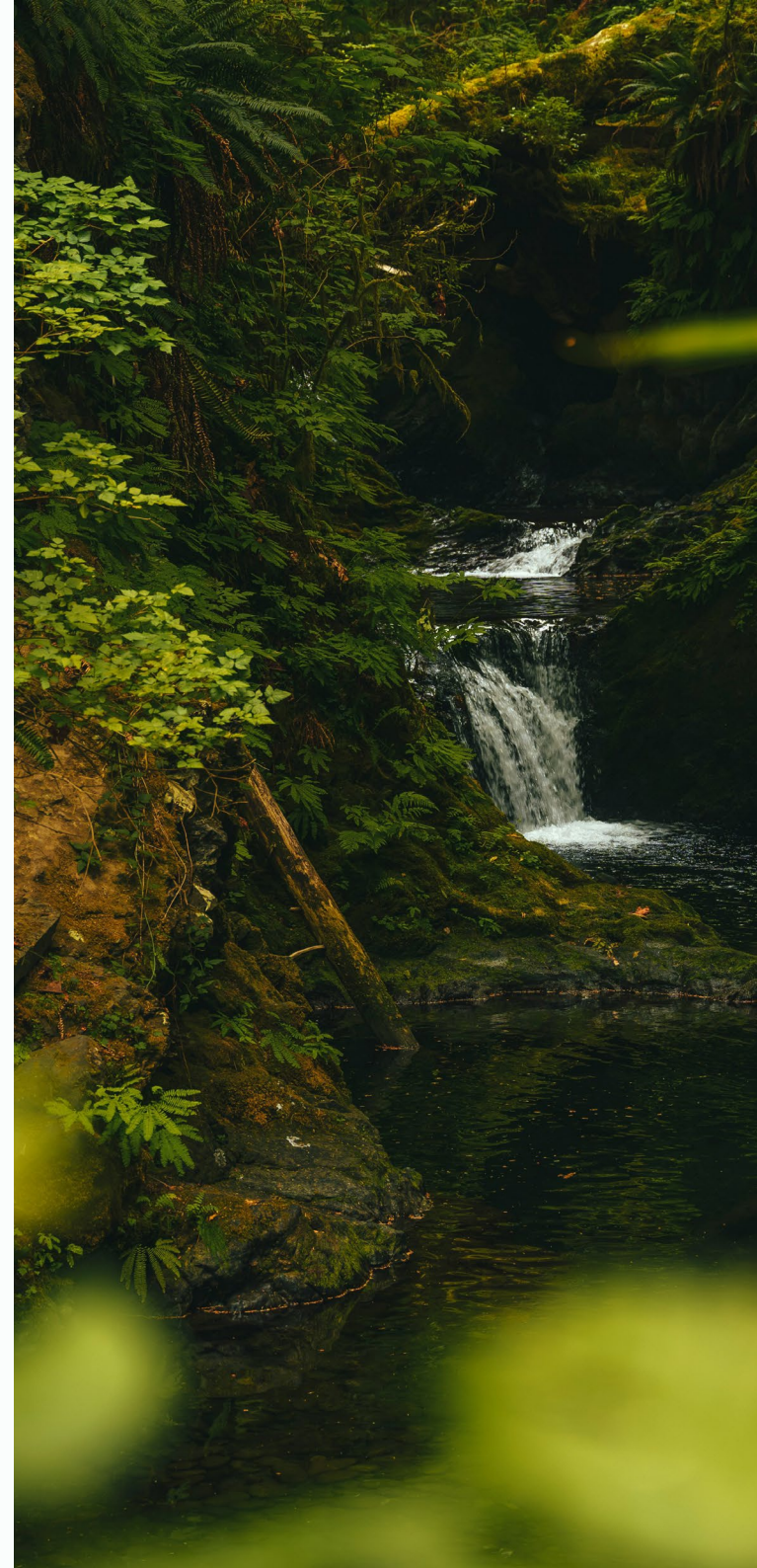
Parting with 2023 came as a relief to many Voluntary Carbon Market (VCM) participants. The market faced increasing criticism for failing to uphold climate integrity and transparency, resulting in decreased trading volumes and lower valuations. Our 2023 VCM Review predicted 2024 to set the stage for market consolidation – marking a halt in the declines in issuances and retirements, but without a material bounce back in demand and pricing.

This edition's findings confirm this expectation is playing out. Performance tracked by the Climate Focus [VCM Dashboard](#)¹ over the first half (H1) of 2024 shows that the declining trend in market activity recorded last year has not continued, and the market is stabilising. Overall issuance levels reached nearly 150 Mt, matching H1 2023 results. Similarly, overall retirement levels have remained stable, with 86 Mt retired in the first half of 2024. This shows that confidence in the VCM is not ebbing away. Instead, buyers and investors maintain stable exposure to the market as they await more clarity on the following key developments:

- Guidance on the possible eligibility of carbon credits in corporate Scope 3 emissions reporting, and the degree to which companies will take action to deliver Beyond Value Chain Mitigation as they transition to net-zero.
- The degree to which the Core Carbon Principles (CCP) labels of the Integrity Council for the Voluntary Carbon Market (ICVCM) will materially affect demand and pricing.
- How COP29 decisions on Article 6 will impact VCM transactions and the claims that buyers can make regarding the use of carbon credits.

As we enter the second half of the year, buyers and investors will gain a clearer picture of the environment in which they operate. This will impact capital flows, driving demand for carbon credits that are of high-quality and offer clear use cases in corporate claims. We expect this to deepen the valuation gap between carbon asset classes, affecting the prospects for future market development.

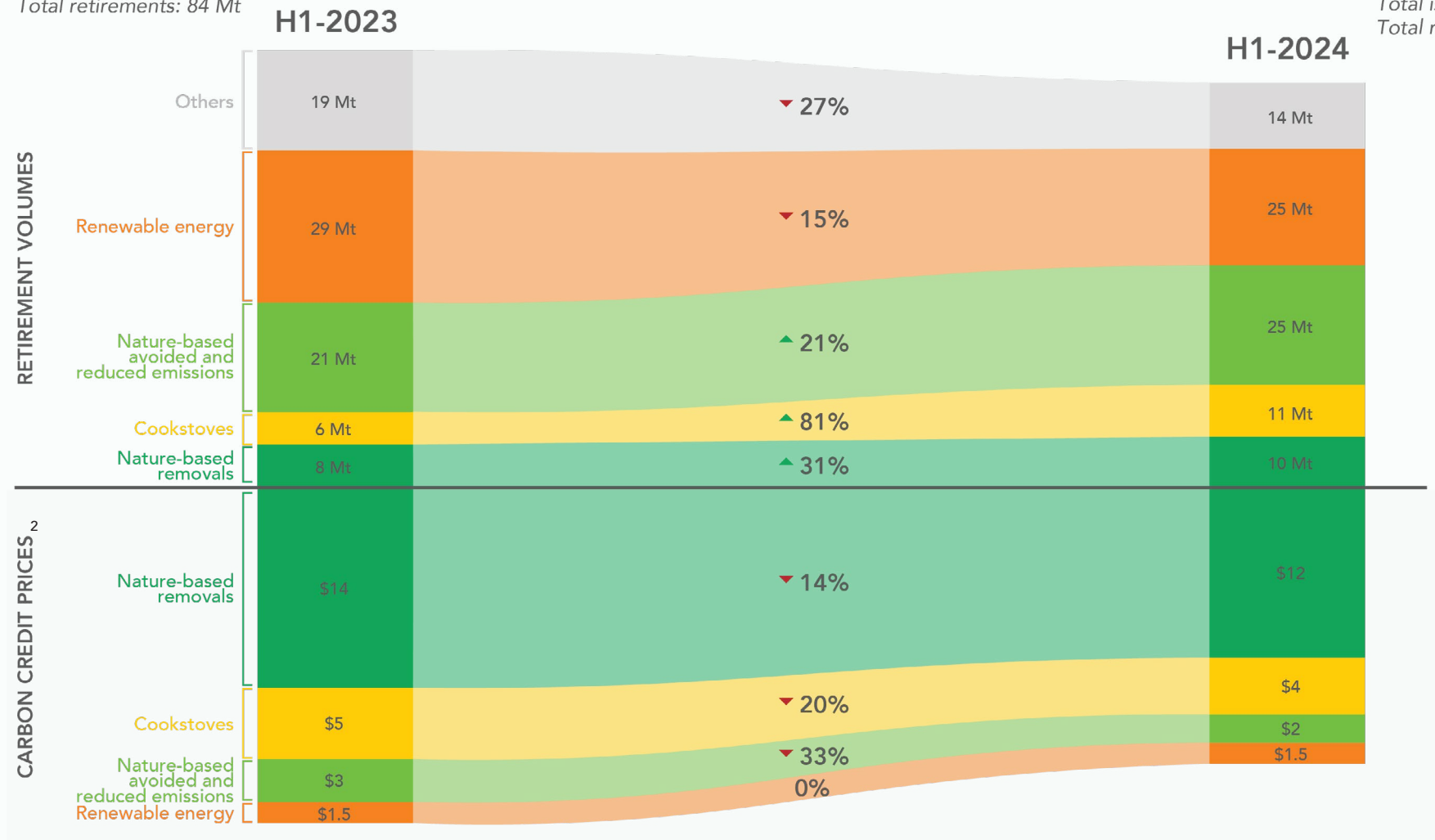
¹ The VCM Dashboard tracks market activity from ten leading carbon standards: American Carbon Registry (ACR), Architecture for REDD+ Transactions (ART), BioCarbon, Cercarbono, Climate Action Reserve (CAR), Climate Forward, Global Carbon Council (GCC), Gold Standard (GS), Plan Vivo and Verra's Verified Carbon Standard (VCS).



2024 H1 IN NUMBERS

Total issuances: 149 Mt
Total retirements: 84 Mt

Total issuances: 145 Mt
Total retirements: 86 Mt



² Presented carbon prices are based on average carbon prices transacted on leading exchanges across selected project categories as of end of H1 2023 (left-hand side) and end of H1 2024 (right-hand side). These prices serve as indicative data points only and do not reflect the prices that individual projects may expect to attain in the market today. Project-level transaction data observed by Climate Focus indicates that prices offered by buyers for individual projects can both subceed and considerably exceed the prices listed here.



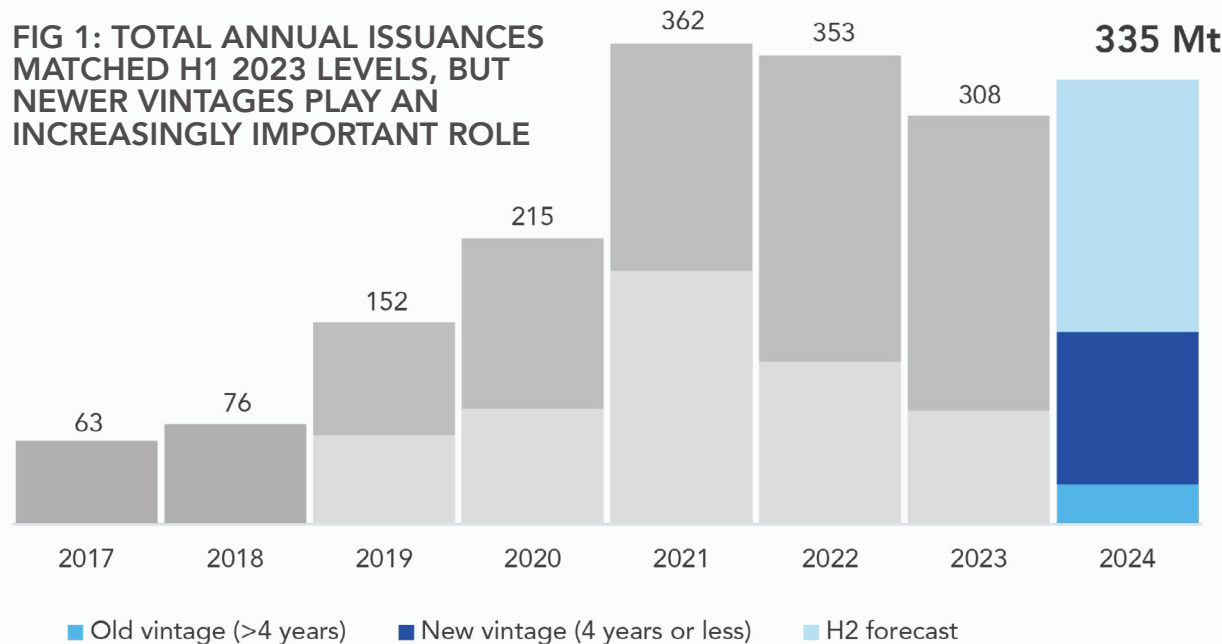
OVERALL ISSUANCE VOLUMES STABILISE BUT THE SHARE OF NEWER VINTAGES GROWS

Following a retreat in year-to-year issuance volumes in 2023, the carbon credit issuance volume recorded in the first half of 2024 (145 Mt) closely matched the volume of the same period last year (149 Mt). Notably, issuances from new vintages³ increased by 13 percent in the first half of 2024 (115 Mt) compared to the same period in 2023 (102 Mt). We anticipate this trend to continue as buyers are increasingly cautious about purchasing older vintages due to ongoing discussions regarding the integrity of carbon credits.

Carbon credit vintages associated with earlier versions of carbon methodologies are generally seen as having a higher risk of being over-credited. This attribute is impacting the ICVCM's CCP labelling process, which takes into account methodology versions and is likely to exclude earlier versions of certain methodologies.⁴

H1 2024 also delivered a new record – aggregate issuances from the ten carbon registries tracked by the VCM Dashboard breached the 2 Gt mark. Our model predicts total issuances for 2024 will reach 335 Mt, finishing the year at a total of 2.2 Gt.

FIG 1: TOTAL ANNUAL ISSUANCES MATCHED H1 2023 LEVELS, BUT NEWER VINTAGES PLAY AN INCREASINGLY IMPORTANT ROLE



³ Issuances were categorised as 'New vintage' if the difference between the issuance year and vintage year is smaller than or equal to 3. Issuances with differences between the issuance year and the vintage year greater than 3 were categorized as 'Old vintage'.

⁴ To forecast H2 2024 volumes, we evaluated how the second half of the year typically develops compared to the H1 performance by examining the past four years of old and new vintage data. For each year, we calculate the percentage change from H1 to H2, and apply this average percentage change to the known H1 value of 2024 to estimate H2 volumes. We apply the same forecasting approach for all subsequent forecasts in this report.



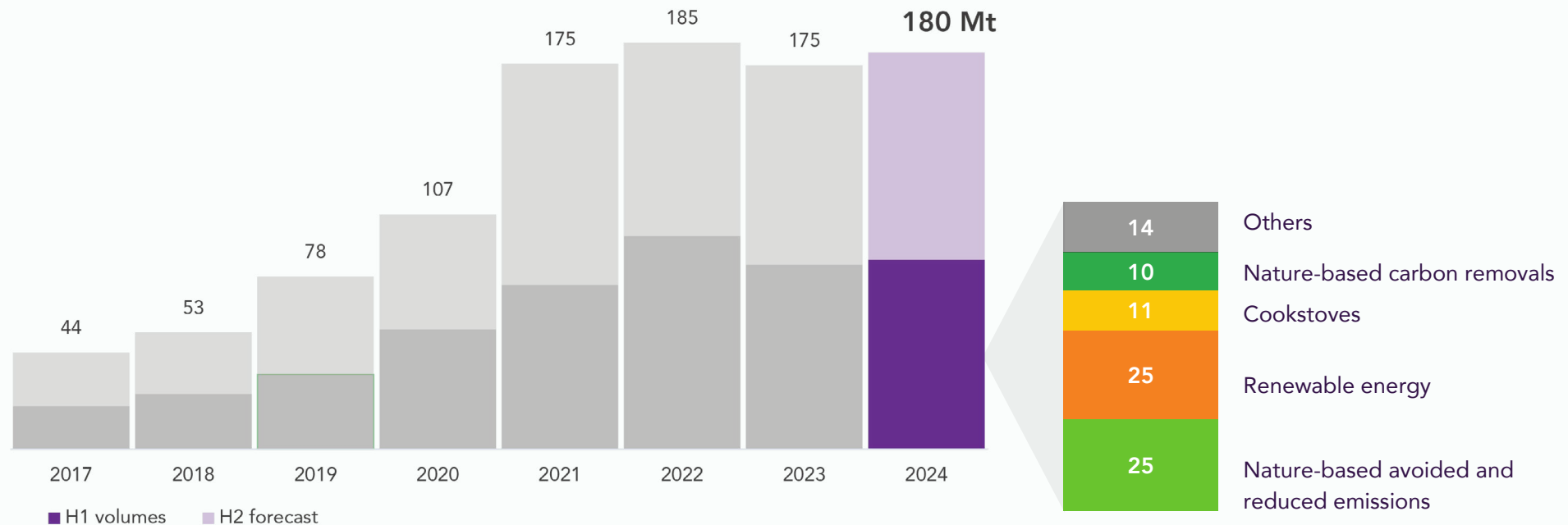
RETIREMENTS OF CARBON CREDITS HOLD STEADY FOR THE THIRD YEAR IN A ROW

The retirement of carbon credits in the first half of 2024 (86 Mt) reached similar levels as the same period last year (84 Mt), accounting for 8 percent of all historical retirements. Nature-based Solution (NBS) activities accounted for around 40 percent of all retired credits, while retirements from renewable energy projects made up 29 percent.

Cookstove carbon credit retirements experienced the greatest change, increasing by 81 percent from 6 Mt in H1 2023 to 11 Mt in H1 2024.

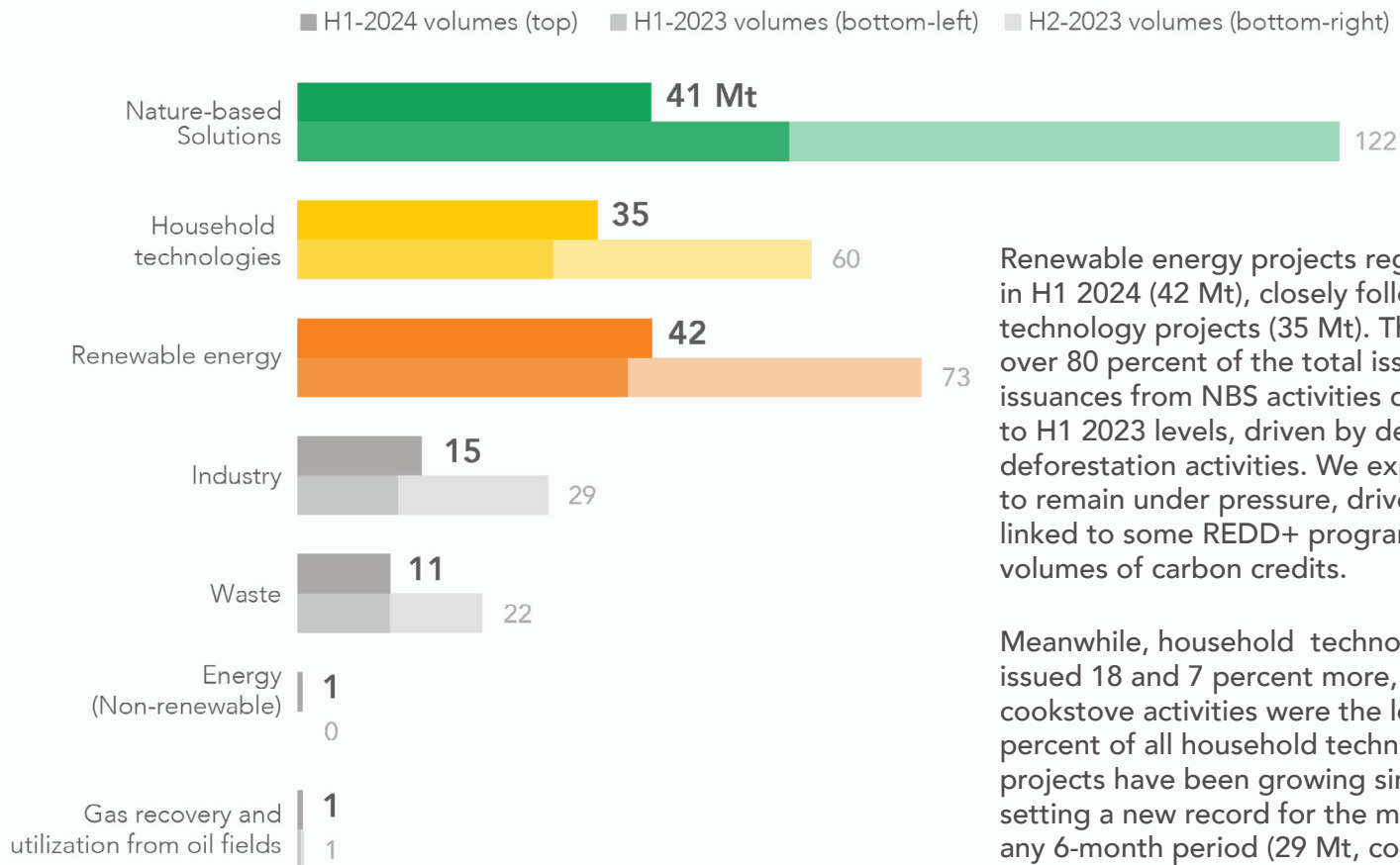
Based on historical trends, we expect that a total of 180 Mt credits will be retired by the end of 2024, making it the year with the second-highest levels of retirements since the market's inception. Such performance would confirm robust demand for carbon credits, despite the current cautious investment sentiment affecting the market.

FIG 2: RETIREMENTS OF CARBON CREDITS CLOSELY MATCHED THE LEVELS OBSERVED IN 2022 AND 2023



ISSUANCES FROM NBS TAKE A STEP BACK

FIG 3: ISSUANCES FROM NATURE-BASED SOLUTIONS SLOWED DOWN FOR THE FIRST TIME SINCE 2020



Renewable energy projects regained the top spot in overall issuances in H1 2024 (42 Mt), closely followed by NBS⁵ (41 Mt) and household technology projects (35 Mt). These three categories jointly represent over 80 percent of the total issuances observed thus far in 2024. Total issuances from NBS activities decreased by one-quarter compared to H1 2023 levels, driven by declining issuances from avoided deforestation activities. We expect NBS avoided emission projects to remain under pressure, driven by carbon credit integrity concerns linked to some REDD+ programmes that in the past issued large volumes of carbon credits.

Meanwhile, household technology and renewable energy projects issued 18 and 7 percent more, respectively. Among household projects, cookstove activities were the leading category, accounting for 83 percent of all household technology credits. Issuances from cookstove projects have been growing since 2021, with the first half of 2024 setting a new record for the most cookstove issuances observed over any 6-month period (29 Mt, compared to 21 Mt observed over the same period last year). Our forecast predicts that this upward trend for cookstove issuances will continue in the second half of the year, reaching a record 71 Mt by the end of 2024.

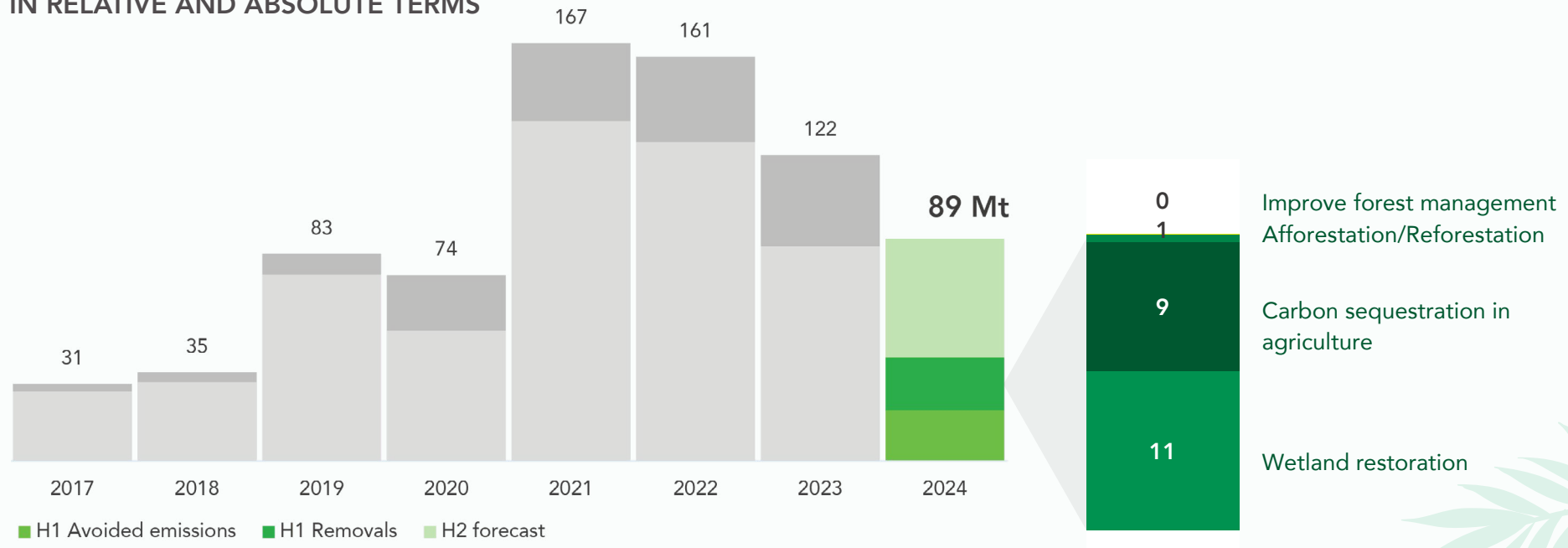
⁵ NBS carbon projects include both nature-based avoided emissions and carbon removal activities.

ISSUANCES FROM NBS REMOVALS MATCH NBS AVOIDED EMISSIONS FOR THE FIRST TIME

Issuances from NBS carbon removal activities⁶ increased by nearly 40 percent (from 15 Mt in H1 2023 to 21 Mt in H1 2024), contrary to the strong decline of issuances from NBS avoided emissions activities.⁷ Carbon removal projects are now the most prominent in the NBS sector for the first time in terms of monthly issuances.

The combination of a growing pipeline of carbon removal projects with a pull-back in interest in certain REDD+ projects explain this trend. We expect this development to continue as long as REDD+ activities are subject to integrity concerns, and net-zero target-setting bodies continue to exclude the use of avoidance emissions carbon credit in corporate decarbonisation strategies.

FIG 4: ISSUANCES FROM NBS CARBON REMOVAL ACTIVITIES INCREASED BOTH IN RELATIVE AND ABSOLUTE TERMS



⁶ Carbon removal projects include the following categories: (1) Afforestation/Reforestation, (2) Carbon sequestration in agriculture, (3) Improved Forest management, (4) Wetland restoration.

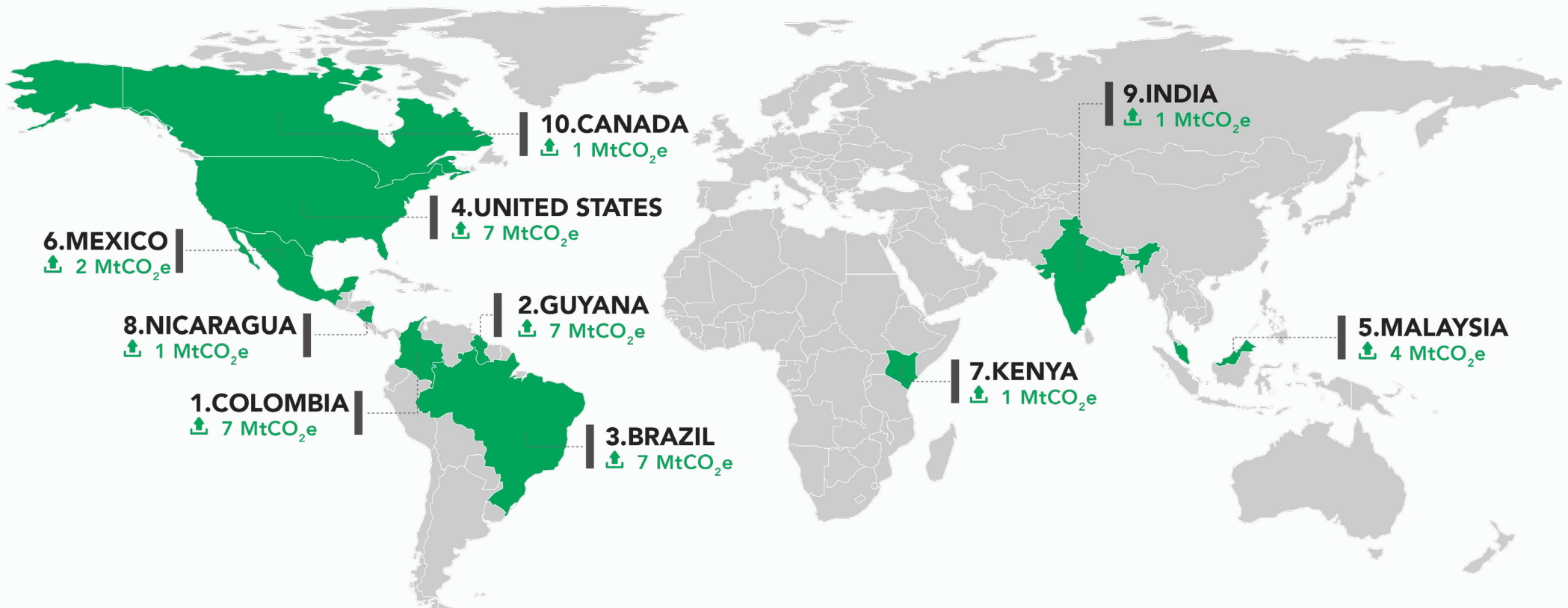
⁷ Avoided emissions projects include the following categories: (1) Avoided deforestation, (2) Avoided conversion, and (3) Reduced emissions in agriculture.

DECLINE IN NBS AVOIDED EMISSIONS ISSUANCES IMPACTS THE RANKING OF TOP ISSUER COUNTRIES

The top 10 countries hosting NBS projects generated over 90 percent of the total NBS supply recorded in H1 2024. Four countries – Brazil, Colombia, Guyana, and the United States – issued nearly 70 percent of all NBS credits so far this year. Last year, Peru and Cambodia dominated by large issuance volumes from their REDD+ programmes.

Since the inception of the market, the top three NBS credit supplier countries are Colombia (138 Mt), Brazil (100 Mt), and Peru (87 Mt).

FIG 5: TOP TEN COUNTRIES WERE RESPONSIBLE FOR OVER 90 PERCENT OF THE TOTAL SUPPLY OF NBS CREDITS IN H1 2024



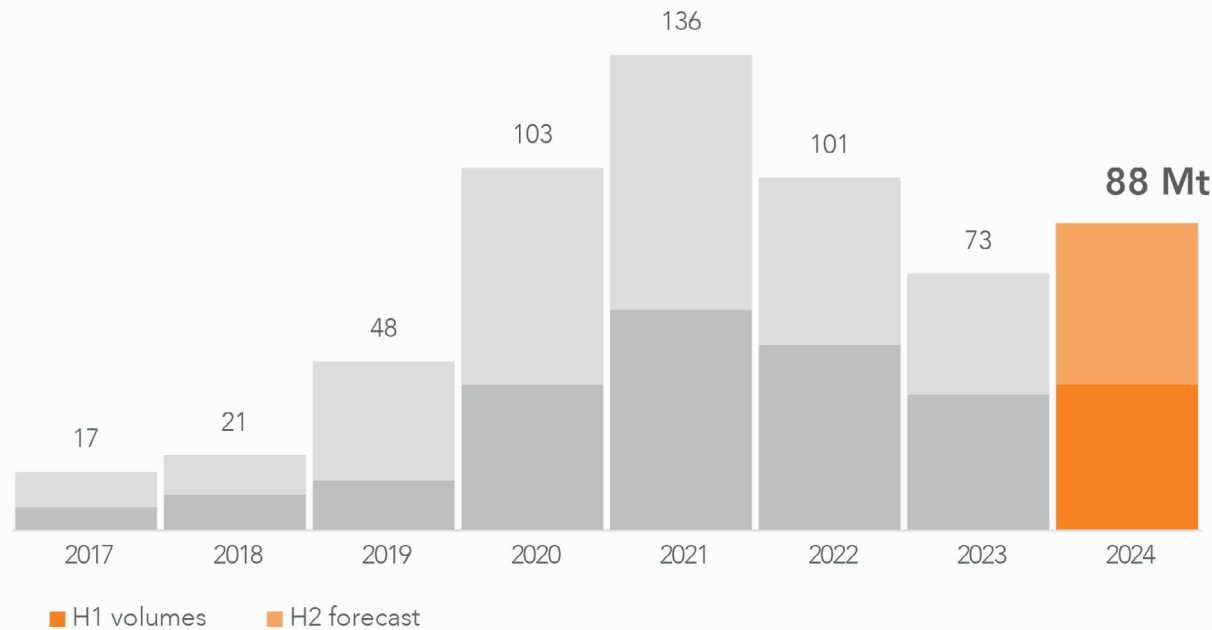


ISSUANCES FROM RENEWABLE ENERGY INCREASE

Issuance levels from renewable energy projects⁸ have increased slightly compared to the same period last year, reaching 42 Mt in the first half of 2024. The leading project types included large-scale wind power activities (18 Mt), followed by large-scale hydropower projects (11 Mt) and large-scale solar power projects (10 Mt).

Verra's VCS was the leading registry issuing carbon credits from renewable energy activities, responsible for over half of the issuances. This was followed by the Gold Standard with 36 percent, and Cercarbono with 7 percent. Compared to last year, the largest increase in renewable energy issuance volumes came from the Gold Standard, however, doubling to 15 Mt in H1 2024. If historical issuance trends hold, we expect renewable energy projects to issue a total of 88 Mt in 2024, representing a 20 percent increase compared to 2023 levels.

FIG 6: ISSUANCE VOLUMES FROM RENEWABLE ENERGY PROJECTS HAVE STABILISED AFTER RETREATING FOR THREE CONSECUTIVE YEARS



⁸ Renewable energy projects include the following categories: (1) Wind, (2) Solar, (3) Hydro, (4) Mixed, and (5) Renewable biomass, for both large- and small-scale.

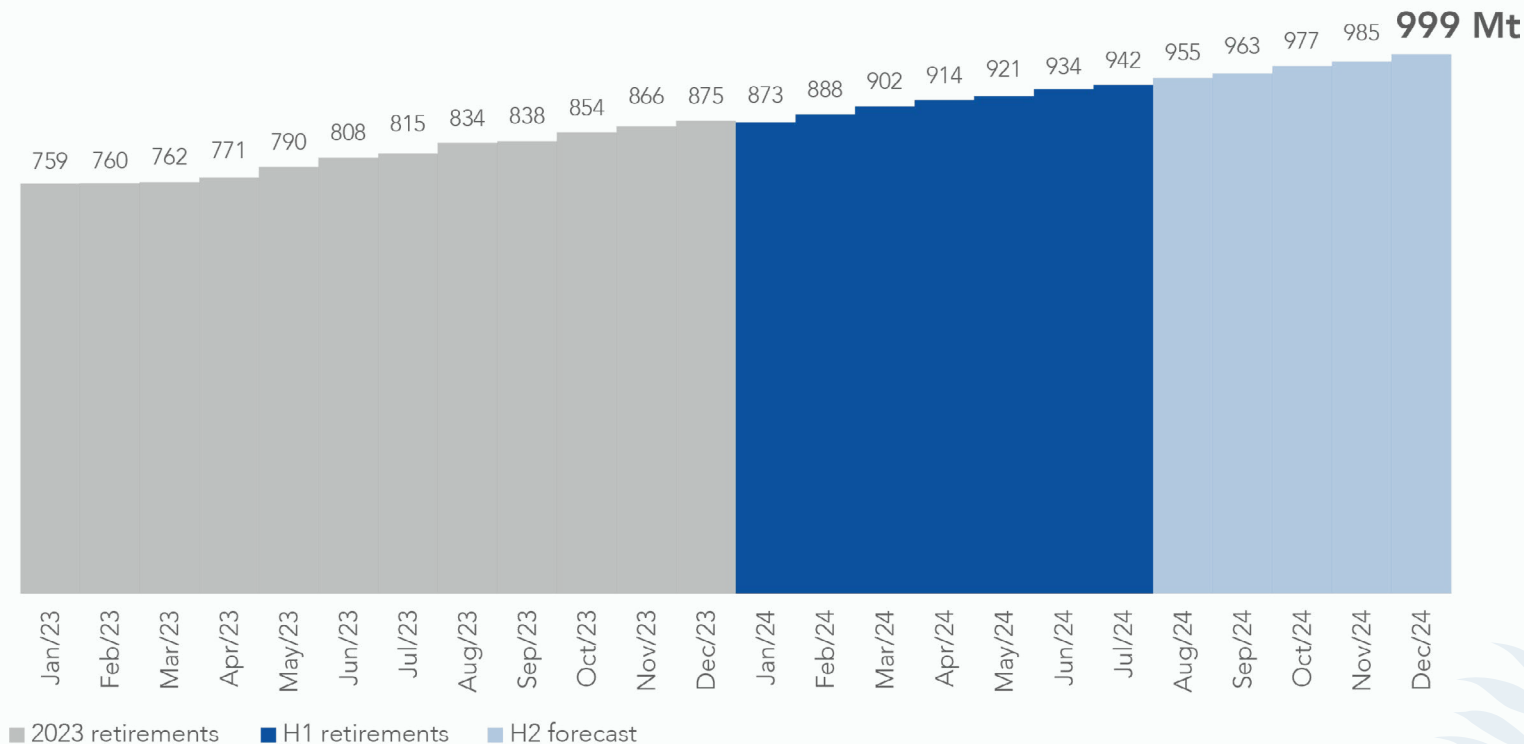


THE NUMBER OF UNUSED CREDITS CONTINUES TO RISE – 1 GT MARK IN SIGHT

Non-retired volumes increased steadily throughout the first half of 2024, rising from 873 Mt in January 2024 to 934 Mt in June 2024. Carbon credits from NBS projects comprise around 40 percent of these newly added volumes, followed by renewable energy projects with around 30 percent and household technology projects with 12 percent.

A large share of these carbon credits relates to pre-2016 vintages that are increasingly less likely to be purchased by buyers. Our analysis shows that 175 Mt of non-retired carbon credits in the market relate to pre-2016 vintages, representing nearly one-fifth of the existing stockpile of credits. Meanwhile, a total of 618 Mt non-retired carbon credits relate to pre-2021 vintages, representing two-thirds percent of the existing stockpile of credits. The large stockpile of unused carbon credits is therefore – in part – a function of unwanted ‘legacy’ credits that will continue to show in future market data. This overshadows demand for and retirement levels of more valued vintages.

FIG 7: WE EXPECT THE STOCKPILE OF NON-RETIRED CARBON CREDITS TO REACH 1 GT CREDITS BY YEAR'S END

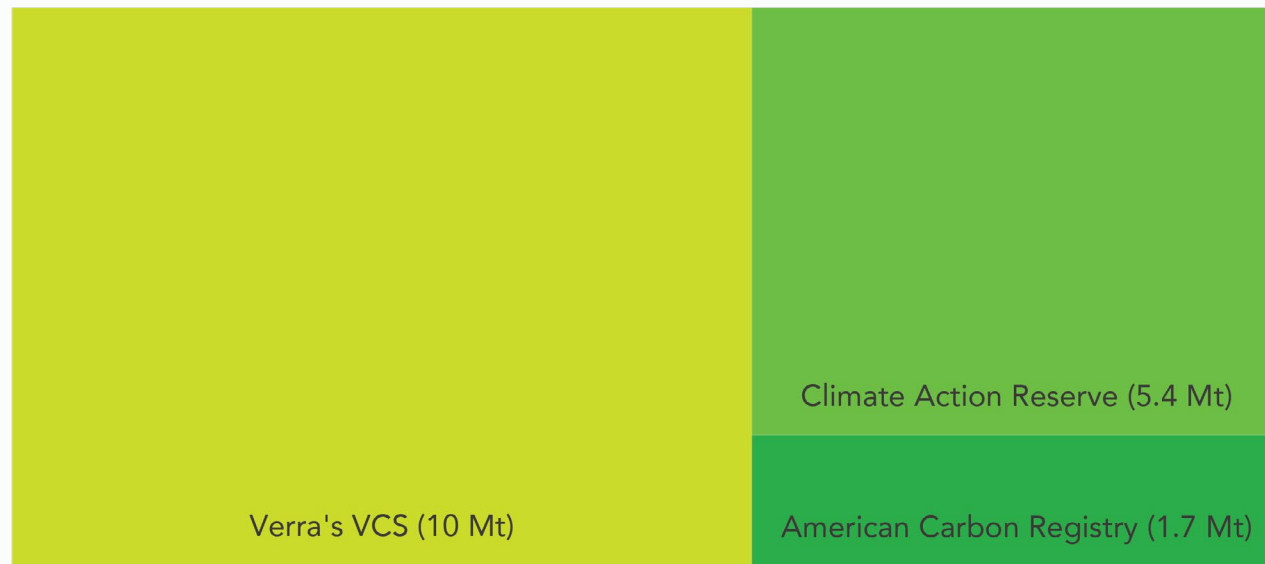


THE FIRST CCP-LABELLED CARBON CREDITS ENTER THE MARKET

Five carbon registries have now received approval from the ICVCM: ACR, ART, CAR, Gold Standard and Verra's VCS. The ICVCM also announced the first set of carbon accounting methodologies that meet its CCPs. These seven eligible methodologies relate to activities that capture methane from landfill sites and destroy ozone-depleting foams and refrigerant gases from discarded equipment.

In H1 2024, three of these registries recorded the first issuances of CCP-labelled carbon credits: the ACR, CAR and VCS. The share of CCP-labelled credits is currently low (3 percent for CAR, 1 percent for ACR and 1 percent for VCS), with the VCS having issued the largest volume of eligible credits (10 Mt). But with nearly 30 other categories of carbon credits currently undergoing assessment by the ICVCM, we expect to see a growing pipeline of CCP-labelled carbon credits in future editions of this report, combined with a widening valuation spread between labelled and non-eligible carbon credits.

FIG 8: THREE CARBON REGISTRIES HAVE ISSUED CCP-LABELLED CARBON CREDITS IN THE FIRST HALF OF 2024



VOLUNTARY CARBON MARKET

2024 H1 REVIEW

The VCM 2024 H1 Overview has been powered by the [VCM Dashboard](#) maintained by Climate Focus.

We welcome you to explore more details about the VCM on our Dashboard, which we update monthly. The Dashboard currently tracks market activity from the following leading carbon standards: American Carbon Registry, ART, BioCarbon, Cercarbono, Climate Action Reserve, Climate Forward, Global Carbon Council, Gold Standard, Plan Vivo and Verra's VCS.

For tailor-made advisory, including strategic advisory on the VCM, future supply- and demand forecast, project due diligence support, and transaction support, please reach out to dashboard@climatefocus.com.

Contact us



[Szymon Mikolajczyk](#)

Lead Consultant at Climate Focus



[Jesús Mallol Díaz](#)

Analyst at Climate Focus



Global head office - Amsterdam
Climate Focus, B.V.
Van Diemenstraat 170
1013 CP Amsterdam
Netherlands