

May 16, 2024

**Voluntary Carbon Credit Trends (January-March 2024)
Tech Industry Initiatives and New Draft on SBTi Standards**

Mai Kojima, Soichi Morimoto, Keita Katayama

1. Introduction

This report introduces a new voluntary credit market trend from January to March 2024. In the United States, leading tech industries such as Google Inc. and Microsoft Corp. have begun to purchase credits. Moreover, a statement announced by the Science Based Targets initiative (SBTi), which allows carbon credits to be used for Scope 3 emissions reductions. New specific SBTi standards are planned to be published in July 2024 and are expected to have a significant impact on the credit market in the future.

2. Trends in the Private Sector

(1) Google participates in the U.S. CO₂ Removal Purchasing Challenge

The U.S. Department of Energy's (DOE) Office of Fossil Energy and Carbon Management (FECM) issued a notice of intent for the Voluntary Carbon Dioxide Removal Purchasing Challenge on March 14, 2024.¹ The Challenge, following the Carbon Negative Shot and the Carbon Dioxide Removal Purchase Pilot Prize, is a DOE program that aims to promote the purchase of high-quality CO₂ removal credits and improve their transparency through public-private partnerships. Credit suppliers are also expected to increase their contact with credit buyers through the Challenge.

The table below shows the carbon removal programs provided by the DOE:

Table 1: DOE Carbon Removal Programs

Program	Carbon Negative Shot	Carbon Dioxide Removal Purchase Pilot Prize	Voluntary Carbon Dioxide Removal Purchasing Challenge
Launch year	2021	2023	2024
Funding	\$100 million	\$35 million	None

¹ U.S. Department of Energy, Office of Fossil Energy and Carbon Management. (2024, March 14). *U.S. Department of Energy Announces Intent to Launch Voluntary Carbon Dioxide Removal Purchasing Challenge*. <https://www.energy.gov/fecm/articles/us-department-energy-announces-intent-launch-voluntary-carbon-dioxide-removal>.

Eligible entities	Individuals, organizations, and local governments	Private sectors (profit/non-profit) and academic institutions	Organizations dealing with carbon removal
Target areas	DACS, biomass, oceans, forests, etc.	DACS, biomass, geology, subsurface storage	N/A

Sources: The DOE website², etc.

Although the Voluntary Carbon Dioxide Removal Purchasing Challenge has no federal funding, it is designed to allow participating organizations to use a special website to access useful materials such as templates for credit agreements.²

On the same day the Challenge was announced, Google declared that it would purchase \$35 million in carbon removal credits over the next 12 months, becoming the first company to meet the requirements for the challenge.³ The company intends to use nature-based and technology-based solutions.⁴ Google has invested in Frontier, the organization funded by several tech companies aiming at an advanced market commitment for carbon removal credits.⁵

The DOE accepts inquiries about participation in the Voluntary Carbon Dioxide Removal Purchasing Challenge until May 15. It is expected that other companies will follow Google in investing in this Challenge.

(2) Microsoft strengthens its purchase of carbon dioxide removal credits

Grassroots Carbon, a company selling carbon removal credits generated from grasslands, announced on January 30, 2024, that it had entered into a soil carbon credit agreement with Microsoft. The credits are created by storing carbon in the soil over 30 years. The agreement represents Microsoft's first investment in carbon removal credits generated from regeneratively managed grasslands.⁶

² U.S. Department of Energy, Office of Fossil Energy and Carbon Management. (2024, March 14). *DOE is Helping YOU Buy Good Carbon Dioxide Removal Credits*. <https://www.energy.gov/fecm/articles/doe-helping-you-buy-good-carbon-dioxide-removal-credits>.

³ Spock Randy. (2024, March 14). *Our pledge to support carbon removal solutions*.

⁴ Spock Randy's LinkedIn post. https://www.linkedin.com/posts/randall-spock_thrilled-to-share-that-today-google-has-pledged-activity-7174044192287928320-8aIm?utm_source=share&utm_medium=member_desktop.

⁵ Frontier, a company founded by Alphabet, Meta, Stripe, and others, aims to purchase more than \$1 billion in carbon removal credits between 2022 and 2030. See Frontier. (n.d.). *Home*. Retrieved May 7, 2024, from <https://frontierclimate.com/>.

⁶ Grassroots Carbon. (2024, January 30). *Grassroots Carbon to provide Microsoft with soil carbon storage credits*. <https://grassrootscarbon.com/press-release/microsoft-buys-soil-carbon-credits/>.

The Next 150, a carbon removal venture founded in 2022 in Switzerland, announced in March 2024 that it had signed a six-year agreement with Microsoft to supply 95,000 tons of carbon dioxide removal credits⁷.

The Next 150 established General Biochar Systems (GBS) in Guanajuato, Mexico, in May 2023 to produce 18,000 tons of biochar per year. In cooperation with local governments and civic organizations, the company currently aims to supply biochar to about 23,000 local farmers. While credit delivery to Microsoft commences in the middle of this year, biochar is expected to be used for reducing reliance on chemical fertilizers and improving crop yields.

According to the Intergovernmental Panel on Climate Change (IPCC), biochar is “a solid material generated by heating biomass to a temperature in excess of 350°C under conditions of controlled and limited oxidant concentrations to prevent combustion.”⁸ Although trees photosynthesize will absorb carbon dioxide and release oxygen during their growth, dead trees left untreated may release the absorbed CO₂ due to the action of microorganisms. Therefore, biochar is expected to be an effective means of carbon removal, as carbonizing the trees to trap carbon allows carbon to be stored while contributing to amending soil. The global biochar market is expected to expand in the future.

According to CDR.fyi, an information platform for the carbon removal market, Microsoft has purchased about 3.3 million tons of credit so far, ranking first ahead of other companies.⁹ Microsoft's future carbon credit initiatives should be closely watched.

3. Trends in Private Sector Initiatives

The SBTi announces a statement to allow credit use for Scope 3 emissions reductions

The SBTi, which sets standards for corporate climate targets, has announced a statement for the first time that it will allow the use of credits for Scope 3 emissions reductions, in response to companies' call for allowing the use of credits for meeting their emission targets. The SBTi previously allowed companies to *neutralize* their residual emissions (less than 10% of base year emissions) with carbon removal credits when achieving net zero emissions including Scope 3. Based on the SBTi standard, the Voluntary Carbon Markets Integrity Initiative (VCMI) also assumed that the interim target to reach net zero emissions should be achieved without credit before the residual emissions are partially offset with emission reduction credits. The latest SBTi decision allows companies to use emissions reduction credits only for Scope 3 emissions reductions to meet their interim targets.

⁷ The Next 150. (March 21, 2024). *The Next 150 inks 6-year agreement with Microsoft for 95,000 high-quality biochar carbon removal credits*. <https://thenext150.com/the-next-150-inks-6-year-agreement-with-microsoft-for-95000-high-quality-biochar-carbon-removal-credits/>.

⁸ IPCC. (2023). 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4, Agriculture, Forestry and Other Land Use. “Appendix 4: Method for Estimating the Change in Mineral Soil Organic Carbon Stocks from Biochar Amendments: Basis for Future Methodological Development.”

⁹ CDR.fyi. (n.d.). *Leaderboards*. Retrieved May 7, 2024, from <https://www.cdr.fyi/leaderboards>.

On January 30, 2024, the Climate Board¹⁰ and VCMI released “Corporate Engagement with Voluntary Carbon Market Claims,” which covers the views of 145 global companies on the voluntary credit market.¹¹ While only 14% of the companies in the survey said that they had SBTi-validated short-term targets and were making progress on both Scope 2 and 3 targets, 70% responded that they would be more likely to set and maintain their emissions reduction targets if they could use credits to meet their targets. Furthermore, 41% of the respondents purchased credits in the last two years, 19% had plans to participate in carbon markets before 2030, and 40% had no such plan or were undecided about participation.

In March 2024, the We Mean Business Coalition,¹² a non-profit organization, published “Accelerating Corporate Climate Finance through Carbon Markets: Overcoming the Challenges,¹³” covering a survey of 180 executives in 27 countries on their attitudes toward the voluntary credit market, with a collaboration with Intercontinental Exchange (ICE) and Bain & Company. According to the survey, more than half of the companies participating in the voluntary credit market said the market plays an important role in achieving decarbonization targets. Those cited as barriers to participation in the voluntary credit market included SBTi and other corporate climate target standards’ lack of awareness of credits, uncertain labeling and claims, risks accompanying uncertainties, lack of transparency, complexity of standards and accounting principles, and lack of specific business incentives. The survey found that if SBTi and other standards allow credits to be used to achieve targets, annual spending on credits may increase by an average of 9% over the next two years¹⁴ and 50% of companies that do not currently have short-term targets will likely set such targets.¹⁵

On November 28, 2023, the VCMI announced a beta version of the Scope 3 Flexibility Claim, a new guideline that allows the partial use of credits to achieve Scope 3 emission reduction targets, in addition to the existing guidelines. Then, there were concerns about the VCMI’s inconsistencies with the SBTi on how credits should be used. The new guideline is expected to be finalized by the third quarter of 2024.

Following the VCMI announcement, the SBTi Board of Trustees on April 9, 2024, issued a statement to the effect that it would change its mindset to allow the use of credits only for Scope 3

¹⁰ A Washington-based company that provides research and information services related to climate change.

¹¹ The Climate Board. (2024, January 30). *The Climate Board & VCMI Publish Report Showcasing Corporate Perspectives on Carbon Credits*. <https://www.theclimateboard.com/2024/01/30/the-climate-board-vcmi-publish-report-showcasing-corporate-perspectives-on-carbon-credits/>.

¹² A non-profit organization that works with global companies to take action on climate change. It has seven NPOs, including CDP, as coalition partners.

¹³ We Mean Business Coalition. (2024, March). *ACCELERATING CORPORATE CLIMATE FINANCE THROUGH CARBON MARKETS: OVERCOMING THE CHALLENGES*. <https://www.wemeanbusinesscoalition.org/accelerating-corporate-climate-finance/>.

¹⁴ If credit use is not allowed, it will decrease by an average 1% per year.

¹⁵ 32% at the moment.

emissions reductions under appropriate policies, standards, and procedures.¹⁶ Proposed changes to the standards will be presented in July 2024. The VCMI and other stakeholders welcomed the statement. On the other hand, the decision by the Board of Trustees seems to have been received with surprise even within the SBTi. According to media reports, SBTi staff members have issued a letter calling for the Board of Trustees to rescind the decision and dismiss the chief executive officer, citing a lack of sound scientific evidence for the decision,¹⁷ which may lead to turmoil.

The SBTi announcement can stimulate potential demand for voluntary credits. It is necessary to pay close attention to the specific standards that the SBTi will announce in the future.

Contact: report@tky.ieej.or.jp

¹⁶ SBTi. (2024, April 9). *Statement from the SBTi Board of Trustees on use of environmental attribute certificates, including but not limited to voluntary carbon markets, for abatement purposes limited to scope 3.* <https://sciencebasedtargets.org/news/statement-from-the-sbti-board-of-trustees-on-use-of-environmental-attribute-certificates-including-but-not-limited-to-voluntary-carbon-markets-for-abatement-purposes-limited-to-scope-3>.

¹⁷ Reuters. (2024, April 17). *Climate target group in turmoil over carbon offsetting plan.* <https://www.reuters.com/sustainability/companies-get-green-light-use-offsets-supply-chain-emissions-2024-04-10/>.