

Achieving
net
zero.

CDR in your
sustainability strategy

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As the urgency to address climate change intensifies, companies are increasingly expected to align their sustainability strategies with net-zero goals. While emissions reductions remain the primary focus, carbon dioxide removal (CDR) is gaining recognition as a necessary complement to these efforts. Companies that delay CDR investments risk exposure to future regulatory requirements and financial liabilities. This paper explores how companies can integrate CDR into their sustainability strategies.

What is CDR?

Anthropogenic⁽¹⁾ activities that capture and durably store biogenic CO₂ are referred to as Carbon Dioxide Removal (CDR). CDR directly contributes to reversing global warming and is essential to achieving safe levels of CO₂ in the atmosphere.

To meet the Paris Agreement's goal of limiting global warming to 1.5°C, a significant reduction in CO₂ emissions is essential. The Intergovernmental Panel on Climate Change (IPCC), the International Energy Agency (IEA), and numerous research organizations emphasize the necessity of removing carbon dioxide from the atmosphere to curb global warming, in addition to emissions reductions. This is particularly critical for sectors where emissions are difficult to reduce (hard-to-abate).

While some actors can feasibly eliminate all of their emissions to reach “absolute zero”, others will have residual emissions⁽²⁾. A number of actors therefore include carbon offsets, or carbon credits, in their climate strategy to reach net zero. A credit represents one tonne of carbon either avoided, reduced, or removed. Historically, the majority of traded carbon credits have been avoidance or reduction credits. However, removal credits are gaining ground. Carbon removal credits are also referred to as CDRs.



(1) Anthropogenic = caused by humans

(2) Residual emissions = emissions that are difficult to avoid or fully eliminate due to technological, financial, or other limitations (EU Science Hub, 2024. https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/residual-emissions-hold-great-operational-value-cities-committed-climate-neutrality-2024-04-17_en)

Carbon removal credits are purchased in the voluntary carbon market (VCM) by actors seeking to offset emissions without being legally required to do so. In contrast, compliance markets, such as the EU Emissions Trading System (EU ETS), involve government-regulated allowances that cap emissions, requiring companies to buy or trade permits to emit. Today, the VCM and compliance markets are completely separated in most countries. While the VCM is a platform through which actors voluntarily finance projects that avoid, reduce or remove CO₂ emissions, compliance markets are mandatory and enforces emission reductions through a cap-and-trade system.

Who should invest in CDR?

With increasing demand for transparency in sustainability reporting, stakeholders will clearly identify which companies have robust sustainability goals and strategies. Early investments in and contributions to CDR projects can create competitive advantages, by demonstrating a commitment to actionable sustainability strategies.

According to analyses by Carbon Gap⁽³⁾, companies with high profit margins per tonne of CO₂ emitted are in an optimal position to allocate financial resources to removals. Sectors like banking, finance, and insurance are characterised by low emissions and high profits. Even for companies with lower profit margins per tonne emitted, Carbon Gap's analysis suggests that the vast majority could afford to neutralize at least 10% of their emissions through permanent removals.

The SBTi's Net-Zero Standard V2.04 underscores the importance of long-term carbon removal solutions, particularly for hard-to-abate emissions. The cement, chemical, and steel industries are considered hard-to-abate sectors. While it is crucial that these industries lower their emissions, residual emissions will remain - which can be compensated for through the use of durable carbon removal.

(3) Höglund, Robert (2023) Who can pay for carbon removal? Our Corporate Ambition Gap Report updated. Carbon Gap <https://carbongap.org/who-can-pay-for-carbon-removal/>

(4) SBTi (2025) <https://sciencebasedtargets.org/consultations/cnzs-v2-initialdraft>

The business case for carbon removals

Integrating CDR into corporate sustainability strategies is not just an environmental responsibility; it is also a strategic business decision.

Companies that begin integrating removals early will not only comply with emerging standards but also gain a competitive advantage by demonstrating leadership in climate responsibility. Just as delaying emissions reductions weakens the credibility of a net zero target, postponing CDR efforts sends the same signal. By setting short-term CDR targets, actors show their commitment to reaching net zero.

Securing high-quality CDR volumes at an early stage allows a company to mitigate the risks associated with future price volatility and potential supply constraints in the carbon removal market. Proactive engagement ensures continued access to essential climate mitigation solutions, thereby strengthening the organisation's long-term sustainability strategy. Furthermore, early involvement facilitates the development of internal capabilities in CDR procurement, consequently preparing for larger-scale purchases in the future.

Investors are increasingly emphasizing sustainability as a key factor in decision-making. Banks and lenders also prioritise ESG (Environmental, Social, and Governance) considerations, making investments in CDR more likely to yield favourable loan terms. As standards and requirements for responsible and sustainable investments tighten, real climate action becomes essential for securing future capital. High-quality CDR offers a way to diversify climate strategies and improve sustainability ratings.



Choosing a CDR strategy

The Oxford Offsetting Principles⁽⁵⁾ states that actors utilizing offsets should progressively increase the share derived from carbon removals rather than emission reductions, ultimately reaching 100% removals by mid-century to align with the Paris Agreement goals. Driving demand for carbon removal offsets today will signal the market to scale up supply.

As you develop a strategy for CDR purchases, recommendations by Milkywire⁽⁶⁾ state the following: 1. Estimate your long-term CDR needs, 2. Set near-term targets aligned with the long-term needs, 3. Budget for CDR, 4. Contract CDR, 5. Communicate transparently. Two potential options for target setting are tonnage or monetary targets – the latter providing more opportunity for a portfolio approach.

An essential factor when deciding to invest in CDR is the quality of the certificate - specifically, whether it represents real and measurable carbon removal.

Industrial carbon removal methods like Bioenergy with Carbon Capture and Storage (BECCS) and Direct Air Capture (DAC) ensure high measurability, allowing for accurate quantification of CO₂ removal.

When combined with long-lived storage solutions, such as geological storage, where carbon remains sequestered for centuries to millennia, you can be confident that the certificates you purchase represent actual carbon removal.

An increasingly used term in the VCM is the “like-for-like principle”. This principle states that a legitimate compensation claim using removals is done by matching the durability of the emitted CO₂; If you have fossil emissions, this should be balanced with permanent removals, using geological storage. If you have biogenic emissions, according to the principle, you can offset using nature-based removals.

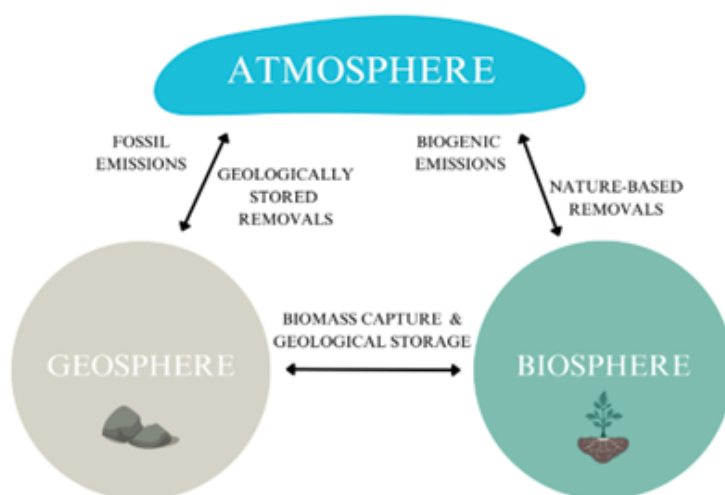


Illustration inspired by Carbon Gap

⁵ Axelsson, K., Wagner, A., Johnstone, I., Allen, M., Caldecott, B., Eyre, N., Fankhauser, S., Hale, T., Hepburn, C., Hickey, C., Khosla, R., Lezak, S., Mitchell-Larson, E., Malhi, Y., Seddon, N., Smith, A. and Smith, S.M. (2024). *Oxford Principles for Net Zero Aligned Carbon Offsetting* (revised 2024). Oxford: Smith School of Enterprise and the Environment, University of Oxford. <https://www.smithschool.ox.ac.uk/sites/default/files/2024-02/Oxford-Principles-for-Net-Zero-Aligned-Carbon-Offsetting-revised-2024.pdf>

⁶ Höglund, Robert, Farsan, Alexander (2025), *Corporate carbon removal targets in practice*. Milkywire <https://www.milkywire.com/white-papers/corporate-carbon-removal-targets-in-practice#executive-summary>

There are several potential approaches to funding CDR, one of which is an internal carbon fee. An internal carbon fee allows a company to impose a tax on its emissions, thereby generating dedicated funds for climate action, including removals. This mechanism creates a direct financial incentive to reduce emissions while ensuring that resources are actively allocated toward sustainability measures. The fee structure can be designed to differentiate between scope 1, 2, and 3 emissions, reflecting the level of control a company has over its emissions. Whether you fund internal emissions reduction efforts, or support external projects, the carbon fee ensures financial resources are actively used to lower greenhouse gas emissions.

Scope 1



Direct emissions from owned & controlled sources

Emissions that come directly from a company's owned or controlled operations.

- Manufacturing and process emissions
- Fuel combustion
- Company vehicles

Scope 2



Indirect emissions from purchased energy

Emissions from the electricity, heat, or cooling a company buys to run its operations.

- Electricity use
- Purchased steam, heating & cooling

Scope 3



Indirect emissions from the value chain

All other indirect emissions from a company's upstream & downstream activities.

- Purchased goods & services
- Transportation & distribution
- Employee commuting/travel
- Investments & financed emissions

The Oxford Offsetting Principles suggest that stakeholders can individually or collectively commit to long-term offset purchase agreements. These agreements offer stable, long-term revenue streams, enabling project developers to secure financing upfront while providing price stability for offset buyers. Furthermore, those adhering to the Principles should advocate for regulations and standards that evolve in line with a science-based approach to offsetting and achieving net zero.

To reach net zero, actors must treat carbon removal as a core component of their climate strategy. Early engagement with high-quality removals signals climate leadership, builds resilience, and supports the scale-up of vital climate solutions. Those who act now will be better prepared for future expectations, and help shape a more sustainable future.



THE ROAD TO NET ZERO



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