

# IS THERE *CREDIT* IN CARBON REMOVAL?

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Organisations continue to pledge to help stop climate change by reducing their greenhouse-gas emissions.

Yet, many firms find they cannot entirely eliminate their emissions or even decrease them as quickly as they would prefer. The challenge is particularly tough for organisations aiming to achieve net-zero emissions, which means eliminating as much greenhouse gas from the air as they put into it. For many, it is necessary to use carbon credits to offset emissions they can't reduce by other means.

Given the burgeoning demand for carbon credits ensuing from the global efforts to reduce greenhouse gas emissions, it's evident that the world needs voluntary carbon markets (VCM) where companies can buy and sell carbon credits. These are used to offset their emissions, by reducing the number of harmful gases released into the atmosphere.

The voluntary carbon market (VCM) has a huge trust problem. The quality and effectiveness of the existing carbon credit supply are drawing widespread skepticism. Since its inception, the VCM has existed without a unifying standard for quality or mutually agreed-upon accounting principles. Without these measures, multiple certifying alternatives have crowded the market, and carbon credit buyers often fail to differentiate signal from noise. The lack of transparency has implications for the credibility of climate benefit claims.

Given the looming climate catastrophe, trust and transparency will become even more critical to the VCM; as the world looks to dramatically accelerate climate action and scale open markets for carbon products. The question is: What role can blockchain technology play within it?

Technology plays a significant role throughout the voluntary carbon markets: in generating offset projects, digital transactions of carbon credits, and visual displays of the positive impacts produced by carbon finance. There is promise in blockchain's ability to build greater trust and transparency in a space clouded by unclear standards and systems for defining quality credits. Blockchain can help distinguish across a spectrum of quality by making information transparent and uniquely suited to compare apples to oranges, a significant benefit of addressing the supply scarcity problem.

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THERE IS PROMISE IN  
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BUILD GREATER TRUST

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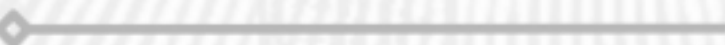


Carbon offset credits, certificates representing the removal or avoidance of greenhouse gas emissions, are traded on the voluntary carbon markets between project developers, intermediaries and end buyers. Verifying actors involved in the voluntary carbon standards could aid the expansion of the voluntary market whilst ensuring offset integrity.

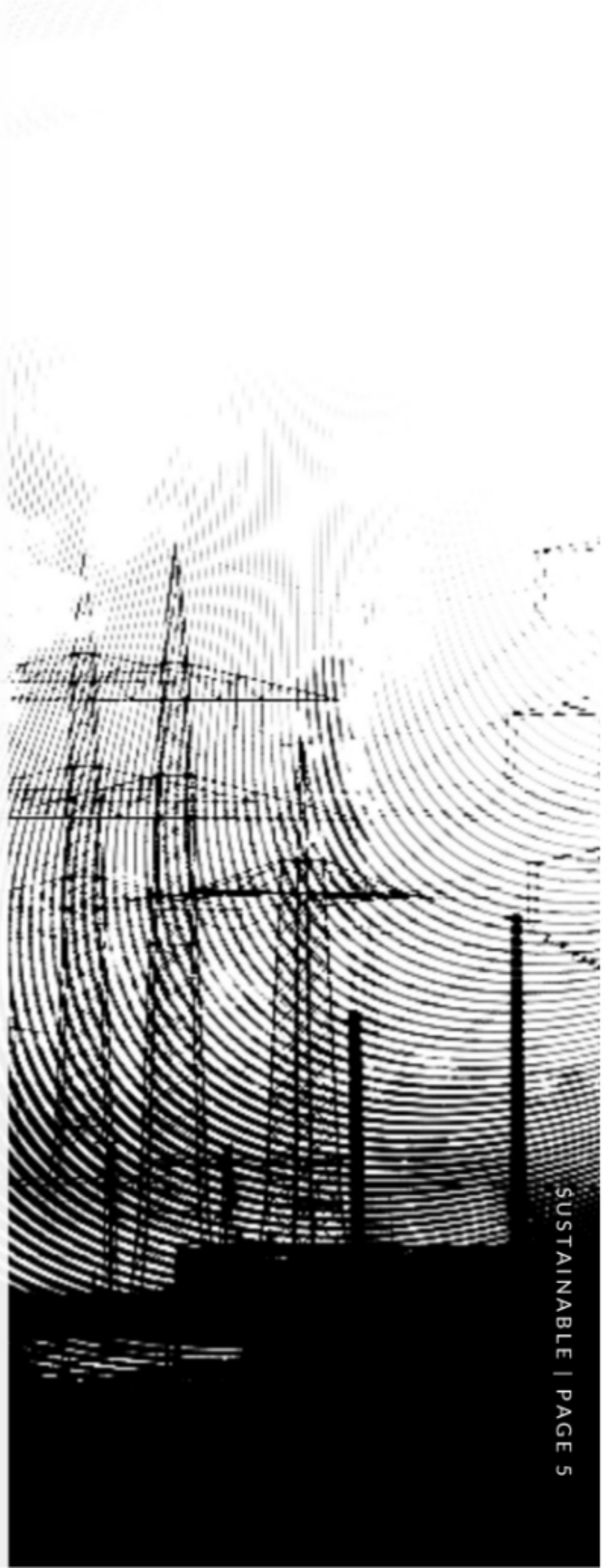
Decentralised identity in VCM, or decentralised identifiers (DID), refers to a system where individuals and entities can control and manage their identity information without relying on a centralised authority or intermediaries. In the context of voluntary carbon markets (VCM), decentralised identity can increase transparency, accountability, and trust in the market by allowing participants to verify the identity and credentials of other participants, without relying on a centralised third party.

Also, carbon offset credits and certificates issued as verifiable credentials, viz. tamper-proof, machine-readable and revocable certifications will promise the quality and efficacy of carbon credits.

Decentralised identity facilitates the tracking and verification of carbon credits traded between participants in the market. By creating a tamper-proof digital identity for each carbon credit, participants can verify the authenticity and ownership of the credits without relying on a centralised third party. This can reduce the risk of fraud and increase the transparency and efficiency of the market.



REVOCABLE  
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Decentralised identity can help scale carbon markets while achieving compliance and interoperability. Compliance ensures that the on-chain carbon market doesn't develop in isolation from the traditional market.

Technology will always be integral in carbon trading, influencing how credits are generated and transacted and how the project benefits get demonstrated to relevant stakeholders. The current challenge is to gain consensus on standards and systems so that the entered data strengthens the integrity of the entire chain. The only way to address the climate emergency is to leverage the open participation and unbridled innovation within the climate tech space.

Unlocking the potential of decentralised identity will give rise to a revolutionary user-owner decentralised economy, enabling a more efficient market for reducing emissions, improving transparency and trust in climate finance processes, and incentivising actions that result in lowering Green House Gas (GHG) emissions.

Safety is the condition of a "steady state" of an organisation or place doing what it is supposed to do. "What it is supposed to do" is defined in terms of public codes and standards, associated architectural and engineering designs, corporate vision and mission statements, and operational plans and personnel policies. For any organisation, place, or function, large or small, safety is a normative concept. It complies with situation-specific definitions of what is expected and acceptable.

Using this definition, protection from a home's external threats and protection from its internal structural and equipment failures (see Meanings, above) are not two types of safety but rather two aspects of a home's steady state. Security is the process or means, physical or human, of delaying, preventing, and otherwise protecting against external or internal, defects, dangers, loss, criminals, and other individuals or actions that threaten, hinder or destroy an organisations "steady state," and deprive it of its intended purpose for being.

Using this generic definition of safety it is possible to specify the elements of a security program.

