

Tokenization of carbon credits in order to sell them on the Voluntary Carbon Markets



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This text aims to explain Will Solutions (WILL) position on blockchain technologies, which have the potential to contribute to climate action.

The emergence of the use of digital solutions for carbon credit sales transactions, which appeared at the dawn of the current decade and are supported by blockchain technologies, raises several questions and requires us to take a position. To this end, Verra¹, which manages the VCS² program, has launched a public consultation and expects to define its position on this issue shortly.

Definition of tokenization

Tokenization in general

Tokenization aims to exploit assets that are initially not very usable and makes them easily accessible to individuals. The tokenization of an asset will allow its division into smaller parts, tokens. These assets will then become public³.

Tokenization applied to carbon credits

According to the World Bank [1], the tokenization of carbon credits is defined as follows « *Tokenization is the process by which an issuer creates a digital representation of something of value on a distributed ledger or blockchain, which represents either digital or physical assets. Tokens can only be sold or transferred by their owners, ensuring they represent unique and unforgeable representations. Tokens may also confer governance rights to users, dictating how they should be used and what type of information should be encoded with them. Many blockchain platforms have developed standards to help ensure interoperability across platforms and tools, as well as to promote security properties of the token. Carbon tokens can incorporate provenance data and information about how the token may be used or traded, which has been provided by*

¹ <https://verra.org/>

² <https://verra.org/project/vcs-program/>

³ Translated from <https://brickken.com/fr/asset-tokenization>

the issuer. ». In other words, carbon credits are digitally represented and transformed into unique tokens with a certain value. This allows, as in any tokenization process, to make them more accessible to the general public.

Trend in the use of blockchain technologies for carbon credits

Several initiatives integrating blockchain platforms and technologies have been launched in the last three years. These platforms and technologies have the potential to increase the visibility, transparency and fluidity of transactions in voluntary carbon credit markets, as highlighted by the World Bank [1] and in the spirit of the "Monitoring Reporting and Verification (MRV)" principles. These include:

- ITTF and Mark Carney, former governor of the banks of Canada and England who launched an initiative in 2019 [2 and 3].
- Several million carbon credits from VERRA⁴, were processed by the KlimaDAO / Toucan platform [4].
- The World Bank in May 2022 which explains in a report on the state of carbon pricing, including a specific section on the state of voluntary carbon markets as well as the emergence of new financial services, new technologies and new governance frameworks are currently shaping carbon markets [1].

This current trend is accelerating, and several issues have been identified as a result of initial transactions. Verra has taken a position, in May 2022, to stop these transactions until these issues can be addressed [5]. Following its indirect experience in January 2022⁵, WILL decided to explore in pilot mode some of these technologies to test them with a completely transparent process. To this end, WILL recently signed an agreement with DeepMarkit to monetize part of its stock of verified carbon credits on the Mintcarbon.io platform by tokenizing them into Non-Fungible Tokens (NFT) [6].

Why is Will Solutions interested?

WILL is interested in these technologies because they make it possible to manage a large number of transactions in a distributed and transparent manner, both in terms of the quantification of greenhouse gas (GHG) reductions or sequestration and their monetization, following their conversion into carbon credits.

⁴ Will's credits were tokenized without the participation and authorization of Solutions Will, who became aware of this after the fact.

⁵ Idem

This feature is important:

- for our intention, within the framework of our Sustainable Communities, to add the sectoral scope of transportation (#7) to the current scopes of energy consumption demand (#3) and waste management (#13);
- to avoid the risks associated with multiple accounting and greenwashing;
- to improve the efficiency and speed of transactions;
- to ensure transparency at the level of both transactions and participants;
- to replace or improve over-the-counter transactions, i.e., directly between the seller and the buyer, with more efficient digital mechanisms linking the registries of reduction/sequestration project holders to any registry of carbon credit buyers, and
- to add value for the benefit of Sustainable Communities members by increasing financial return and accelerating micro-projects for GHG reduction.

Positioning and concrete actions of Will Solutions

WILL continues to investigate these technologies, integrating some pilot projects in blockchain, particularly on the phase of monetization of carbon credits. Among the criteria and factors that guide our decisions are:

- our corporate values, including transparency and our B-Corp commitments;
- KYC (Know Your Customers) stakeholder validation processes. VERRA has identified this as a priority in its note [5];
- integrity of the process - a mechanism must be in place to ensure that traded carbon credits are eventually retired to ensure that there is an end-of-use retirement;
- the built-in ability to have visibility on transactions;
- optimizing the financial return for all GHG reduction/sequestration projects so that they can finance and implement their current and future projects;
- consider the carbon footprint of tokenization protocols in order to minimize their environmental impacts;
- the guarantee that these impacts will be offset in harmony with a net zero carbon alignment [7] and
- interoperability with a Meta Registry of all programs as promoted by the Voluntary Carbon Market Integrity Council ICVCM [8].

Carbon footprint of tokenization technologies

A key element that will be considered and investigated in our tokenization pilot projects will be the carbon footprint of these technologies and their protocols. These innovations are rapidly evolving and initiatives to reduce their carbon footprints are needed. As an example, the recent merger on the Ethereum blockchain is a step in the right direction [9 and 10].

WILL's ambition is to significantly increase the qualification and quantification of the GHG reduction micro-projects it processes in order to initially generate more than 100 million tons of reduction [11] and will leverage its enabling technology of its Sustainable Community solution under development by adding, among other things, the ability to process the transport sectoral scope (scope 7).

[About Will Solutions](#)

Will Solutions Inc. (WILL) is a private Canadian company, [certified BCorp.](#), whose head office is based in Beloeil, QC. The company is active in the Voluntary Carbon Markets (VCM) sector through its Sustainable Community. WILL has a social philosophy based on sharing. It is based on two major axes: democratizing access to carbon credits by pooling local GHG reduction projects carried out by SMEs, NPOs and public

entities, and returning as much money as possible to these partners following the sale of carbon credits by WILL. The company's name reflects its commitment to promoting voluntary climate initiatives that go beyond standard practices and government regulations. WILL has been carbon neutral since 2007 and is committed to returning 10% of its net profit to community projects and initiatives supporting sustainable development.

About Sustainable Community

Sustainable Community (SC) is a project to democratize access to the voluntary carbon market which is validated under [the VCS program](#) administered by the VERRA organization. SC is the first group project (cluster) out of the 1,700 projects validated on this program which brings together GHG reductions for its members. The community business model of a cluster of hundreds of GHG reduction micro-projects is intended to be a catalyst for local actions making it possible to engage a variety of actors. On July 21, 2020, Sustainable Community obtained [the Solar Impulse label](#) from the Swiss Foundation directed by Bertrand Piccard.

References

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