



Nasdaq Launches New Technology to Scale Global Carbon Markets

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Technology Securely Digitizes the Issuance, Settlement, and Custody of Carbon Credits

Service Uses Smart Contract Language, Deployed via Private Centralized Database or Private, Blockchain Technology for Enterprises

Puro.earth to Register Carbon Removal Credits Using the Technology

NEW YORK, Nov. 29, 2023 (GLOBE NEWSWIRE) -- Nasdaq (Nasdaq: NDAQ) today announced the launch of a pioneering new technology that securely digitizes the issuance, settlement, and custody of carbon credits. It will be provided to market infrastructures, registry platforms, and other service providers globally.

The service will ultimately support the development and institutionalization of global carbon markets. Despite being a relatively young market the carbon credit operating model is characterized by bilateral trading and a heavy reliance on manual interaction, providing limited ability to scale as the market develops. This inflexibility has also led to an absence of standardization – where credit data can be categorized and integrated into existing systems – which is a major barrier to attracting significant capital flows.

The technology will allow market operators and registries to create standardized digital credits and distribute them with full auditability throughout the transaction lifecycle. Nasdaq has also developed a carbon taxonomy framework that can readily incorporate new types of credit as the market evolves, along with a comprehensive set of APIs that will allow participants to seamlessly interact across the market. Together, this will help establish a standardized, trusted ecosystem capable of attracting high-quality liquidity from a variety of investors.

“Fragmented technology choices in the trading and settlement of carbon credits has prevented the carbon industry from growing and maturing as an asset class. A lack of system flexibility, standardization, and connectivity has made it challenging for critical infrastructure providers and institutional investors to access the market in a meaningful way,” said Roland Chai, Executive Vice President and Head of Marketplace Technology at Nasdaq. “Bringing institutional grade technology to underpin the market will drive ever-greater liquidity across carbon marketplaces and open the possibility of greater interoperability between registries in the future.”

The service will utilize smart contract technology, allowing customers to securely create and process rights, obligations, and other information relating to the underlying asset. By automating several asset servicing and settlement procedures, the technology has the power to enhance efficiency and transparency throughout the trade lifecycle and provide a complete audit trail of credit ownership and retirement. The technology can also be used to reimagine current multiparty workflows in industries where paper, manual processes, and risk are obstacles to growth.

The issuance, settlement, and custody capabilities can be readily integrated with existing technology architectures used across the financial system, or deployed as a standalone platform, while also offering flexibility to connect to existing payment networks and bilateral settlement options. This will allow infrastructure providers to continue serving traditional markets, whilst also capturing growth opportunities from carbon markets, without the cost associated with major change programs.

Additionally, Nasdaq offers infrastructure optionality that enables the technology to be deployed on either a centralized database or using private blockchain technology.

Nasdaq announces technology partnership with Puro.earth

Alongside the launch of the service, Nasdaq has today announced a new technology partnership with Puro.earth, a world-leading standards and registry platform for engineered carbon removal, to register CO₂ Removal Certificates, or CORCs. The registry tracks the issuance, retirement, and the transfer of the assets, providing full traceability and transparency to avoid double counting carbon removal projects.

Gerard Smith, Vice President, Digital Assets & Carbon for Marketplace Technology at Nasdaq, commented: “This is a great example of how our technology can support the growth of the voluntary carbon removal market, which still places a heavy reliance on manual interactions and onerous data collection tools. By providing a comprehensive set of APIs, alongside standardized contracts, Puro.earth can seamlessly interact with a full range of market participants.”

Antti Vihavainen, CEO of Puro.earth, added: “Accurately managing the lifecycle of carbon credits is essential for trust. By leveraging Nasdaq’s technology, the core part of our carbon crediting infrastructure, the Puro Registry will be modernized. The system will become available for carbon marketplaces and exchanges through the Puro Connect API and will also have the preparedness for labeling CORCs compliant with Article 6 of the Paris Agreement.”

The company’s Puro Standard is the first carbon removal standard for engineered carbon removal methods in the voluntary carbon market. It consists of high-quality carbon removal methodologies, aligned with the Intergovernmental Panel on Climate Change definition for carbon removal.

Certified suppliers and their carbon removals are verified by an independent third-party and the CORCs can be bought by companies seeking to offset their carbon footprint directly from suppliers or through a third-party marketplace.

About Nasdaq

Nasdaq (Nasdaq: NDAQ) is a leading global technology company serving corporate clients, investment managers, banks, brokers, and exchange operators as they navigate and interact with the global capital markets and the broader financial system. We aspire to deliver world-leading platforms that improve the liquidity, transparency, and integrity of the global economy. Our diverse offering of data, analytics, software, exchange capabilities, and client-centric services enables clients to optimize and execute their business vision with confidence. To learn more about the company, technology solutions, and career opportunities, visit us on LinkedIn, on Twitter @Nasdaq, or at www.nasdaq.com.

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