

A Sustainable Future Through Crypto



Sustainability is a Critical Issue of Our Time

As cryptocurrency continues to gain traction across nearly all sectors of the global economy, it has become increasingly important that the industry engage in more sustainable approaches, across both the blockchain and application layers. The crypto industry is often perceived, in a blanket way, as unsustainable: heavily taxing on natural resources and high in carbon emissions.

However, this oversimplified narrative isn't the full story. Within the crypto industry there are highly sustainable approaches to crypto already in use. More importantly, blockchain and crypto are poised to play a major role in making the world more sustainable. At Ripple, we are deeply committed to, and an active leader in, the push not only for a more sustainable crypto industry but also for deployment of blockchain and crypto technology to help achieve globally agreed climate goals.

Here, we explore the progress being made to make crypto more sustainable, how blockchain can help reimagine global carbon markets, and Ripple's corporate commitments to realize a more sustainable future.

Sustainable Crypto Use Cases

Though not widely known, there are several, highly sustainable approaches to crypto currently already in use. Crypto can help a myriad of industries – such as finance, real estate and business operations – function more efficiently.

While all blockchains work to confirm transactions, many were designed to do so in a way that uses minimal energy, some as low [as the energy used for a credit card transaction](#).

The XRP Ledger, for example, relies on a validation and security algorithm called [Federated Consensus](#), which requires minimal amounts of energy to run. With that minimal usage then being offset with carbon credits, XRPL became the first major blockchain to become [carbon-neutral](#) since 2020

Another less energy-intensive approach to recording and validating transactions is called [proof-of-stake](#); which is used by some blockchain protocols and communities committed to crypto sustainability.

Both of these low-energy blockchain protocols are so energy-efficient that they are even [more sustainable than traditional payment mediums](#) like cash, which can exacerbate climate change, by contributing to ongoing deforestation, water loss, and pollution.



Beyond making the global financial system more efficient and sustainable in and of itself, blockchain and crypto also hold real promise for transforming market mechanisms critical to achieving globally agreed climate goals. Blockchain's inherent transparency makes it a natural solution to address some of the most persistent pain points in global carbon markets, a key factor in mitigating global warming.

One example of this is through [carbon credits tracking](#), a system for tracking carbon output and offsets. Blockchain can reliably capture and track standardized information about the source, quality, and status of the carbon credit, making for more dynamic marketplaces, based on greater data transparency, integrity, and diversity. Blockchain can also mitigate key problems with carbon credits today, for example, by reducing the likelihood of "double-counting" which happens when, either knowingly or unknowingly, entities purchase a credit as an offset that has already been used.

Climate related use cases for crypto and blockchain are real and abundant. From creating tracking, tracing and trading solutions that help speed the global transition to [renewable energy](#), to harnessing the power of blockchain to [reduce ocean plastics](#), the potential that blockchain has to make the world a more sustainable, livable, and equitable place is now coming into focus.

Ripple Leads on Blockchain Sustainability

Ripple is committed to helping build a greener crypto industry that can deliver on its promised benefits in a more sustainable way. We believe a clean, prosperous, and secure low-carbon future is achievable through innovation.

Ripple's vision for a more sustainable future has been a core element of the company since its founding, and our strategy, products, and services are informed by that vision.

That is one reason why we use the carbon-neutral XRP Ledger ([XRPL](#)). It's also why Ripple's payment solution leverages [XRP](#), one of the world's most sustainable digital assets, native to XRPL.

And it's the reason Ripple was the first major blockchain company to pledge to achieve [carbon net-zero by 2030](#) or sooner through reduced emissions, clean energy use, and investments in high quality carbon removal projects. Ripple has also played a leadership role across the industry to ensure a cleaner future for blockchain and crypto. Ripple is a co-founder and active member of the [Crypto Climate Accord](#) (CCA), a private sector-led initiative for the entire crypto community focused on decarbonizing the cryptocurrency. Ripple is also a founding member of the World Economic Forum's [Crypto Impact and Sustainability Accelerator](#), an initiative to accelerate progress around energy, social, and governance targets for the crypto ecosystem.

[Join](#) Ripple in making crypto and blockchain sustainability a priority for the industry.