

# Bitcoin Zero (BTC0)

Real Bitcoin net zero emissions

## Abstract

*Bitcoin's proof of work consensus has been a blessing and a curse. While its network is the most robust with the most assured trust and decentralization, securing the bitcoin blockchain requires significant energy consumption and, ultimately, environmental impact. **Bitcoin Zero** is a token that combines one Bitcoin (BTC) with the retirement of 10 Universal Carbon (UPCO2) tokens on minting thereby offsetting Bitcoin's polluting impact for many years.*

## Foreword

BTC has been a transformative monetary force. The ability to move funds from anywhere in the world to anyone in the world, in a censorship resistant fashion, has led to BTC becoming a globally accepted store of value.

To maintain the Bitcoin blockchain, BTC uses vast amounts of energy<sup>1</sup> and accordingly Bitcoin's carbon impact is, unfortunately, substantial. Even the most conservative estimates put the network's annual footprint at 22 megatons<sup>2</sup>. Other studies place the annual carbon footprint at over 50 megatons<sup>3</sup>.

Accordingly, a single Bitcoin's share of the network's annual pollution is between 1 and 2.5 tonnes of carbon.

We've designed a token that dissipates this unfortunate impact: **Bitcoin Zero** is an ERC-20 wrapped Bitcoin (BTC), where, at the time of minting, 10 year-tonnes of carbon credit are retired, thereby cleaning that bitcoin of much of its pollutive impact.

## Universal Carbon

The carbon credits retired upon minting take the form of **UPCO2**. Every **UPCO2** token maps to one year-tonne of CO<sub>2</sub> emissions averted through forestry preservation projects in the form of a verified credit held at the Verra Registry, one of the industry's standards agencies. Projects that back the token, beyond being REDD+ certified, satisfy the inclusion criteria of the Universal Carbon Foundation.

**UPCO2** is a standard ERC-20 token. It is individually available for trade on the Uphold platform with liquidity to follow on major global exchanges.

## Key Facts

Audit	CertiK
Administration	Uphold
Custody	Self-Custody or Uphold (leveraging Ledger Vault)
Counsel	Paul Hastings LLP
Issuer	Universal Protocol Alliance

## Bitcoin Zero (BTC0)

The rapid expansion of various wrapped Bitcoin solutions, largely to satisfy demand from bitcoin users looking to participate in decentralized finance has made wrapper solutions well-understood and widely accepted: today, over USD \$2 billion worth of BTC is active on the Ethereum blockchain.

The Bitcoin network, to the earth's great benefit, has become increasingly green over time. The network continues to use increasing percentages of renewables to power mining. We have conservatively assumed that each Bitcoin generates 2.5 tonnes of carbon per annum, and that the network improves its efficiency at 20% annually. This puts each Bitcoin on a path to generate approximately 10 tonnes of carbon over its life.

The cost of 10 year tonnes of carbon is small relative to the scale of a single Bitcoin: we estimate that the ten credits would total, at today's prices, \$100, well less than 1% of the total cost of one Bitcoin. For this small premium, a holder of Bitcoin Zero can take comfort from the fact that BTC0 has paid for many years of the Bitcoin's carbon emissions.

<sup>1</sup> 75 TWh per year. **Digiconimist**.

<sup>2</sup> *The Carbon Footprint of Bitcoin*. **Cell Press**.

<sup>3</sup> *The Carbon Footprint of Bitcoin*. **MIT CEEPR**.

## Technology

**Bitcoin Zero** is a standard ERC-20 token built on the Universal Protocol standard. Real-time transparency into the underlying substantiating assets will be visible on the UP Alliance transparency page and is written to a public blockchain.

## Risks

The primary risks to holders of Bitcoin Zero lie in custody of the underlying assets and the security surrounding the minting and burning processes. Secure storage of cryptocurrencies, while not a “solved” problem, has matured to institutional standards over the past few years. **Bitcoin Zero** leverages Ledger’s Vault which provides industry leading access controls, including the separation of roles, multisignature transfers, and a suite of egress controls tied to IPs, wallet addresses, and velocity.

The existing markets for voluntary carbon are opaque, fragmented, and in their infancy. The associated **UPCO2** token is a new project and accordingly there may be dislocations or limited liquidity as the market for the token matures. **Bitcoin Zero**, with the bulk of its value tied to bitcoin’s price, should suffer minimal impact from such price discrepancies, but it may trade at varying levels of premium to its underlying bitcoin.

## Key Partners

**Universal Protocol Alliance:** The issuer of **Bitcoin Zero**, the UP Alliance is a coalition of leading cryptocurrency companies whose mission is to help decentralized ledger technology achieve mainstream adoption as a universal method for transferring value over the internet.

UP Alliance members include: CertiK, a blockchain security specialist; Ledger, a custodian of digital assets; InfiniGold, a precious metals digitization company; and Uphold, an investments and payments platform.

The UP Alliance has already successfully issued Universal Gold (UPXAU), Universal Carbon (UPCO2), Universal Dollar (UPUSD), Universal Bitcoin (UPBTC) and Universal Euro (UPEUR). All are wrapped tokens on the Ethereum Network and feature transparent value substantiation with a public record of the underlying collateral.

## DISCLAIMER

**Bitcoin Zero** is a volatile asset. The voluntary carbon credits associated with part of the asset’s value are highly volatile assets with limited liquidity. Additionally, the **Bitcoin Zero** token is built atop blockchain technologies, which, given their nascency, are still at elevated risk of failure.