

# Ethereum blockchain completes 'monumental' overhaul

September 15 2022, by Joseph BOYLE



Enthusiasts hope a greener ethereum will spark wider acceptance.

Leading cryptocurrency figures hailed on Thursday the completion of one of the biggest software upgrades the sector has ever attempted, an overhaul of the Ethereum blockchain aimed at reducing its massive energy consumption.

Developers had spent years working on an energy-efficient version of Ethereum, a digital ledger that underpins tens of billions of dollars worth of cryptocurrencies, digital tokens (NFTs), games and apps.

Ethereum is the second most important blockchain after bitcoin, but it has faced criticism for burning through more power each year than New Zealand.

"And we finalized!" tweeted Ethereum's co-creator Vitalik Buterin, calling it a "big moment for the Ethereum ecosystem".

Buterin quoted research claiming that the "merge", as developers have called the software upgrade, would reduce global electricity consumption by 0.2 percent.

Enthusiasts hope a more energy efficient Ethereum will spur wider adoption of blockchain technology, particularly for banks and financial firms to automate backend processes.

But so far the technology has been used largely to create speculative financial products.

And critics remain sceptical of the energy saving claims, pointing out that it is unclear how much energy the new system will need.

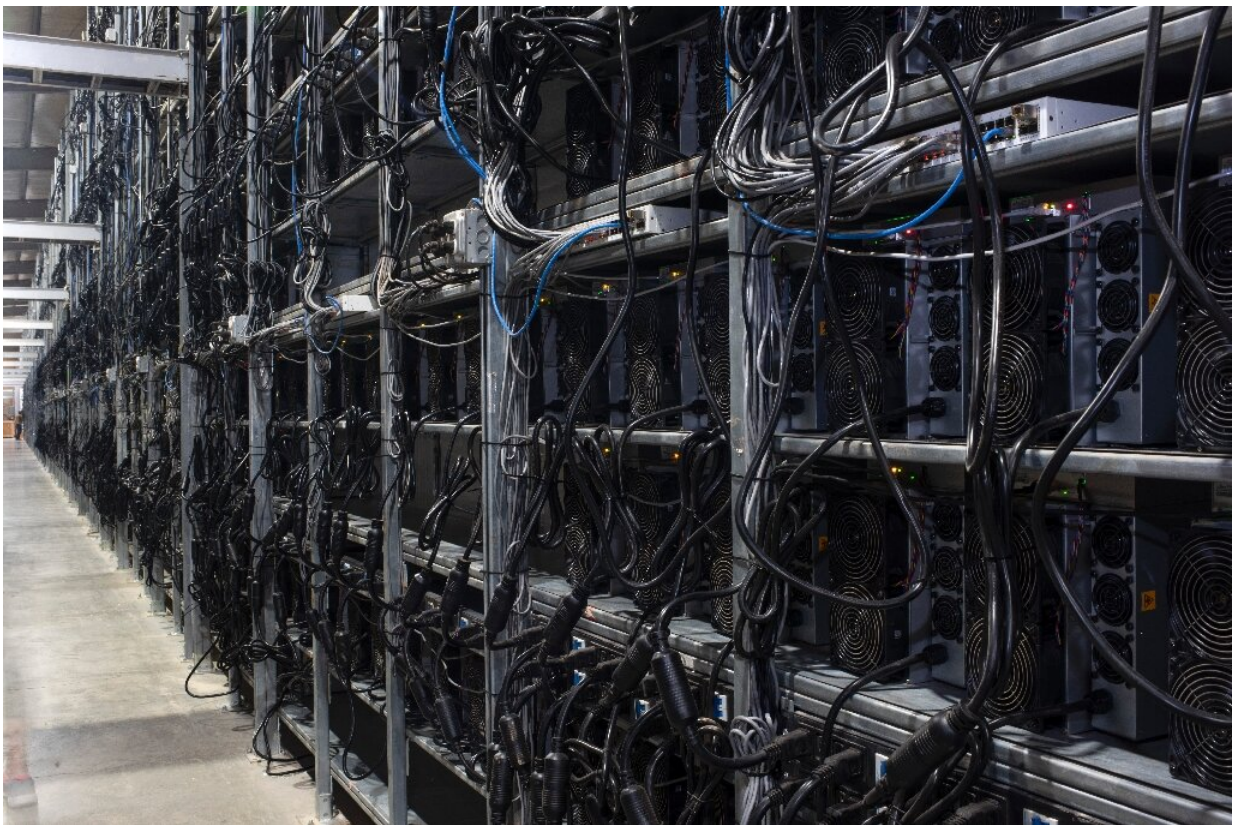
## **Trading resumes**

Blockchain company Consensus called it a "monumental technological milestone" but the scale of the work and potential for glitches led several companies and major exchanges to halt trading during the merge process.

The biggest exchange, Binance, said on Thursday it had resumed trading

in ether, the native currency of Ethereum, tweeting: "The Ethereum Merge is complete."

Ether was down slightly in early trading and has lost more than half of its value since the start of the year, suffering a rout along with the rest of the crypto world as investors shied away from risky assets.



Bitcoin is the last major blockchain to use the energy intensive mining process that requires rows of energy-guzzing computers.

But ether has recovered better than most crypto assets and Edouard Hindi of Geneva-based crypto hedge fund Tyr Capital told AFP the currency was now likely to rise against the dollar and bitcoin as cautious

investors begin to buy.

Ether accounts for almost 20 percent of a cryptocurrency market valued at around \$1 trillion, according to the site CoinGecko.

The upgrade changes the way transactions are logged on the Ethereum blockchain.

From the start of Ethereum in 2015, so-called crypto miners competed for the prize of adding entries to the blockchain.

They used vast computer power to solve complex equations with only the winners getting the reward, a mechanism known as "proof of work".

The new system scraps the competition element and eliminates the miners and their energy-guzzling computer stacks.

Instead, potential "validators" need to put up 32 ether (worth \$55,000) with the winner chosen in a lottery-style system to update the chain and receive the reward, a system known as "proof of stake".

"It makes Ethereum much easier to understand conceptually and far less controversial," Charlie Erith of ByteTree Asset Management told AFP.

He said it would make it harder for investors and regulators to take a tough line on the technology.

However, the upgraded blockchain could face a rocky start.

Some crypto mining companies have already promised to keep running the old mechanism on a smaller blockchain, "forked" from the main Ethereum chain.

And even if the "merge" is successful, Ethereum will remain expensive and slow compared with non-blockchain alternatives.

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