

Blockchain Energy

Threat and Opportunity: Blockchain's Hunger for Power

The oil crises of the 1970s motivated industrial economies to get smarter about fuel consumption. Now the digital economy faces a similar inflection point.

The growing global demand for technology is consuming energy at an increasingly unsustainable rate. It's also creating unanticipated opportunities to boost renewable energy and reduce the industry's carbon footprint. Will we rise to the challenge?

Blockchain is the Gas-Guzzler of Tech

Blockchain is a promising solution to complex problems of trust, identity, and authentication – but it is profoundly wasteful.

The hardware and software necessary to verify transactions on the blockchain (a process known as mining) require enormous amounts of electricity.

Miners often open server farms in places with inexpensive energy, then use so much power that it burdens the local infrastructure. One rural town had to temporarily forbid new mining activity to prevent power shortages.

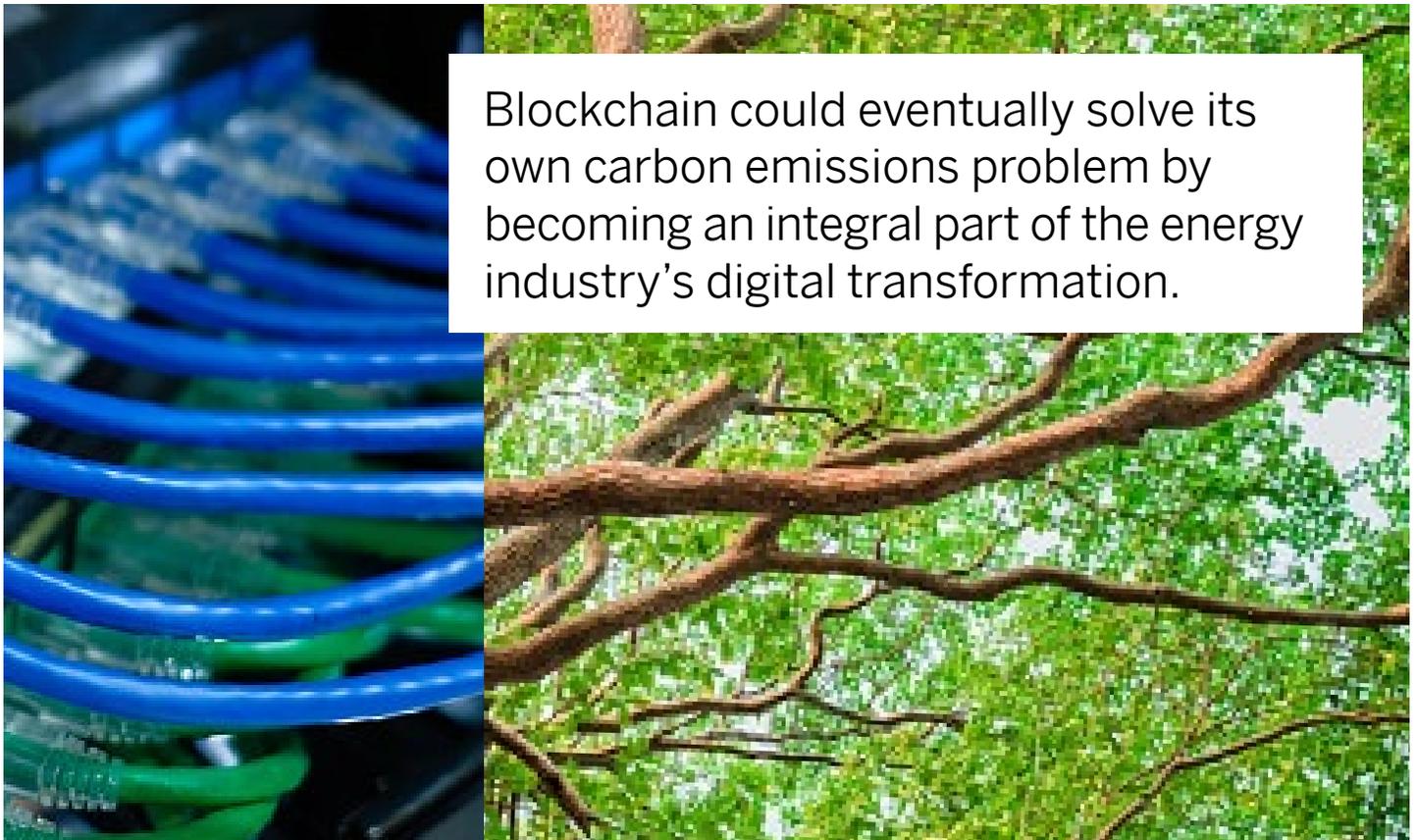
Recognizing this problem, the evolving blockchain industry is developing new algorithms that will authenticate and validate transactions reliably while consuming far less power.

Lightening Blockchain's Carbon Footprint

Because mining computers need not be geographically near blockchain transactions, they can be set up anywhere power is cheap – like deserts and mountaintops. This would encourage even more widely distributed power generation.

This decentralization could encourage greater investment in renewable energy sources and storage, a necessary step toward more abundant, less expensive, cleaner power.

Blockchain could also leverage data from devices enabled for the Internet of Things to automate and optimize contracts, billing, payment, and distribution in real time, making it even more **efficient to provide low-carbon energy to end users at scale.**



Blockchain could eventually solve its own carbon emissions problem by becoming an integral part of the energy industry's digital transformation.

 [Read More in *Blockchain's Energy Crisis*](#)