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Panic as Kosovo pulls the plug on its energy-guzzling bitcoin miners

Speculators rush to sell off their kit as Balkan state announces a crypto clampdown to ease electricity crisis

Daniel Boffey in Brussels and Jack Butcher in Pristina

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For bitcoin enthusiasts in <u>Kosovo</u> with a breezy attitude to risk, it has been a good week to strike a deal on computer equipment that can create, or "mine", the cryptocurrency.

From Facebook to Telegram, new posts in the region's online crypto groups became dominated by dismayed Kosovans attempting to sell off their mining equipment - often at knockdown prices.

"There's a lot of panic and they're selling it or trying to move it to neighbouring countries," said cryptoKapo, a crypto investor and administrator of some of the region's largest online crypto communities.

The frenetic social media action follows an end-of-year announcement by Kosovo's government of an immediate, albeit temporary, ban on all crypto mining activity as part of emergency measures to ease a crippling energy crisis.

Bitcoin and other cryptocurrencies are created or "mined" by high-powered computers that compete to solve complex mathematical puzzles in what is a highly energy-intensive process that rewards people based on the amount of computing power they provide.

The incentive to get into the mining game in Kosovo, one of Europe's poorest countries, is obvious. The cryptocurrency currently trades at more than £31,500 a bitcoin, while Kosovo has the cheapest energy prices in Europe due in part to more than 90% of the domestic energy production coming from burning the country's rich reserves of lignite, a low-grade coal, and fuel bills being subsidised by the government.

The largest-scale crypto mining is thought to be taking place in the north of the country, where the Serb-majority population refuse to recognise Kosovo as an independent state and have consequently not paid for electricity for more than two decades.

There is serious money to be made - and in a time of ready energy supply it was being made. The number of people mining cryptocurrencies in Kosovo is thought to have skyrocketed in recent years. Groups such as Albanian Crypto Amateurs on Facebook and Crypto Eagles on Telegram have exploded with thousands of new members, though it is unclear how many are mining cryptocurrency, or on what scale.

But the good times appear to be over - at least for now - and the developments in Kosovo highlight one of the big questions about the future of bitcoin and other such digital currency.

The latest calculation from Cambridge University's <u>bitcoin electricity consumption</u> <u>index</u> suggests that global bitcoin mining consumes 125.96 terawatt hours a year of electricity, putting its consumption above Norway (122.2 TWh), Argentina (121 TWh), the Netherlands (108.8 TWh) and the United Arab Emirates (113.20 TWh).



A protest against power cuts in Pristina. The cuts were introduced because of an increase in consumption, low domestic production and high import prices. Photograph: Valdrin Xhemaj/EPA

Meanwhile, Kosovans spent the final days of 2021 in darkness as domestic and international factors combined to cause energy shortages and rolling blackouts across the country. At the peak of the recent crisis, an unforeseen shutdown at one of its two ageing power plants left Kosovo importing about 40% of its energy on international markets - where prices have soared - and the government was forced to provide an emergency subsidy to help meet the costs.

Kosovo's minister of economy, Dr Artane Rizvanolli, said the ban had been a "nobrainer".

"We have allocated €20m for subsidising energy, which is probably not going to be sufficient, and this is taxpayers' money that is going to subsidise electricity consumption," she said. "On the other hand we have crypto mining, which is a highly energy-intensive activity and is not regulated."

Kosovo is not alone. Last September, the 10 most powerful regulators in China vowed to kill off what was then the world's biggest cryptocurrency mining industry.

In Iceland, the country's national power company, Landsvirkjun, has said it will turn away potential cryptocurrency miners as the country is experiencing power shortages. Last week, a powerful committee in the US Congress announced it would convene a hearing on the issue. US cryptocurrency miners are believed to be the largest consumers of energy, followed by Kazakhstan and the Russian Federation.

"It's time to understand and address the steep energy and environmental impacts it is having on our communities and our planet," said committee chairman Frank Pallone and Diana DeGette, who heads its oversight panel.

Alex de Vries, a Paris-based economist, said his initial estimates in a paper to be published later this year suggest just a quarter of the energy used by miners is renewable: "The question really is: what are you getting in return for that?"

Jason Deane, chief bitcoin analyst at Quantum Economics, said he believed there were a host of advantages, including the offer of instant, virtually free, financial transactions carried out without the use of a third party, with certainty that there will be instant settlement, and that the current teething problems need to be put in perspective.

Since the Kosovan authorities made the decision, police and customs officers have begun conducting regular raids, seizing hundreds of pieces of hardware.

While a 60-day state of energy emergency remains in place, the prospect of upcoming regulation and energy bill price rises leaves the future anything but certain.

"There are a lot of people who have invested in crypto mining equipment and it's not a small investment," cryptoKapo said. "People have even taken out loans to invest and the impact now is very bad on their lives."