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# Bitcoin mining just got way easier and lots more profitable

PUBLISHED SAT, JUL 3 2021 3:18 AM EDT | UPDATED 4 HOURS AGO



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**KEY POINTS**

More than 54% of bitcoin's hashrate, which is the collective computing power of miners worldwide, has dropped off the network since its market peak in May.

The bitcoin code has re-calibrated to make it 28% less difficult to mine.

Miners who are still plugged into the network stand to make greater profits while most of the network's miners remains offline.



Bitcoin mine on the edge of the Tibetan Plateau near Sichuan, China. The mine is strategically placed next to a hydraulic power generator.

Getty Images

It just became a whole lot easier and much more profitable to mine for bitcoin.

[The world has known for months](#) that more than half the world's bitcoin miners would be going dark as China cracked down on mining. [Now that it's happened](#), the bitcoin algorithm has adjusted accordingly to make sure miner productivity doesn't continue to fall off a cliff.

That adjustment – which took effect early Saturday morning – also means that way more cash is going to the bitcoin miners who remain online.

“This will be a revenue party for miners,” said

Bitcoin mining engineer Braden Aronowich:

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Bitcoin mining just got way easier and lots more profitable

Bitcoin mining engineer Brandon Arvanaghi.

“They suddenly own a meaningfully larger piece of the pie, meaning they earn more bitcoin every day.”

## Mining made easier

A bitcoin miner runs a program on a computer to try to solve a puzzle before anyone else does. Solving that puzzle is what completes a block, a process that both creates new bitcoin and updates the digital ledger keeping track of all bitcoin transactions.

China had long been the epicenter of bitcoin miners, with past estimates indicating that [65%](#) to [75%](#) of the world’s bitcoin mining happened there, but a government-led crackdown has effectively banished the country’s crypto miners.

“For the first time in the bitcoin network’s history, we have a complete shutdown of mining in a targeted geographic region that affected more than 50% of the network,” said Darin Feinstein, founder of Blockcap and Core Scientific.

[More than 50%](#) of the hashrate – the collective computing power of miners worldwide – has dropped off the network since its market peak in May.



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Fewer people mining means that fewer blocks are solved each day. Typically, it takes about 10 minutes to complete a block, but Feinstein told CNBC the bitcoin network has slowed down to 14- to 19-minute block times.

This is precisely why bitcoin re-calibrates every 2016 blocks, or about every two weeks, resetting how tough it is for miners to mine. On Saturday, the bitcoin code automatically made it about [28% less difficult](#) to mine – a historically unprecedented drop for the network – thereby restoring block times back to the optimal 10-minute window.

The bitcoin algorithm is programmed to handle an increase or decrease in mining machines, according to Mike Colyer, CEO of digital currency company Foundry. “It is a self-

regulating market that does not require any

regulating market that does not require any outside committee to determine what to do. This is a very powerful concept,” he said.

**VIDEO** 08:42

## Why does bitcoin use so much energy?

Fewer competitors and less difficulty means that any miner with a machine plugged in is going to see a significant increase in profitability and more predictable revenue.

“All bitcoin miners share in the same economics and are mining on the same network, so miners both public and private will see the uplift in revenue,” said Kevin Zhang, former Chief Mining Officer at Greenridge Generation, the first major U.S. power plant to begin mining behind-the-meter at a large scale.

Assuming fixed power costs, [Zhang estimates](#) revenues of \$29 per day for those using the latest-generation Bitmain miner, versus \$22 per day prior to the change. Longer-term, although miner income can fluctuate with the

price of the coin. Zhang also noted that mining

price of the coin, Zhang also noted that mining revenues have dropped only 17% from the bitcoin price peak in April, whereas the coin's price has dropped about 50%.

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“We are expecting a period of much higher mining profitability for Compass Mining clients,” said Whit Gibbs, CEO and founder of Compass, a bitcoin mining service provider. “We expect miners to be approximately 35% more profitable.”

Blockcap's Feinstein agrees. “We are expecting a revenue and profit increase for the foreseeable future. This was an unexpected gift to the network, not just on revenues but on decentralization and sustainable energy metrics.”

Although the difficulty drop benefits all miners, those using new-generation equipment stand to benefit the most.

Feinstein tells CNBC that most of the profit in

Fennstein tells CNBC that most of the gear in China that was turned off was old-generation equipment, which is inefficient and runs on much smaller profit margins.

## Six-month surge

It is hard to predict how long the hashrate deficit will last. Barbour said that it is totally possible that Beijing could simply reverse their policy, and this could only be a short-term interruption.

If not, most mining crypto experts agree that it will take anywhere from six to 15 months for all of that idle and displaced mining hardware to migrate. “It’s going to take a long time for the surplus to find a home,” said Barbour.

Gibbs thinks miners should see heightened revenue for at least the rest of 2021.

“Every day the Chinese miners are searching globally for places to turn their machines back on. There is very limited space at the moment,” said Colyer.

Part of the problem, according to Feinstein, is that even before China cut off mining, there was already a lack of infrastructure to house the new-generation miners being deployed monthly by Beijing-based manufacturer Bitmain.

Now that the market is flooded with an oversupply of used mining rigs, it is tough to say how fast countries will be able to absorb the influx of gear.

“Some mining companies have had everything built and were just waiting for these ASICs to plug in, which would only take a couple days,” explained Arvanaghi.

“Others may need to build containers, extend warehouses, or increase their power capacity. We won’t see the hashrate reach what it used to be overnight, but we’ll see it tick back up over the next few months,” he continued.



Of all the possible destinations for this equipment, the U.S. appears to be especially well-positioned to absorb this stray hashrate. CNBC is told that major U.S. mining operators are already signing deals to patriate some of these homeless Bitmain miners.

U.S. bitcoin mining is booming, and has venture capital flowing to it, so they are poised to take advantage of the miner migration, Arvanaghi told CNBC.

“Many U.S. bitcoin miners that were funded when bitcoin’s price started rising in November and December of 2020 means that they were already building out their power capacity when the China mining ban took hold,” he said. “It’s great timing.”

But Barbour believes that much smaller players in the residential U.S. also stand a chance at capturing these excess miners.

“I think this is a signal that in the future

I think this is a signal that in the future, bitcoin mining will be more distributed by necessity,” said Barbour. “Less mega-mines like the 100+ megawatt ones we see in Texas and more small mines on small commercial and eventually residential spaces. It’s much harder for a politician to shut down a mine in someone’s garage.”

**VIDEO** 01:58

## Bitcoin miners look to US cities amid Chinese crackdown



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