

Bitcoin Mining Update: July/August 2025

1 ZH/s milestone, U.S. tariffs and miners' continued HPC pivot

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Quick Miner Overview

Miner Hardware	Capex per TH/s	Revenue per TH/s	Revenue per kWh	Opex per TH/s*	Payback (Days)
S23 Hyd (9.5 J/TH)	\$30	\$0.058	\$0.254	\$13.68	677
S21XP Imm. (13.5 J/TH)	\$24.56	\$0.058	\$0.179	\$19.44	637
S21+ Hydro (15 J/TH)	\$21.5	\$0.058	\$0.161	\$21.6	591
S21 Pro (15 J/TH)	\$16	\$0.058	\$0.161	\$21.6	440
S21 Imm. (16 J/TH)	\$15.5	\$0.058	\$0.151	\$23.04	443
S21+ (16.5 J/TH)	\$15	\$0.058	\$0.146	\$23.76	438
S19XP+ Hyd (19 J/TH)	\$10	\$0.058	\$0.127	\$27.36	326

*Based on an assumed energy rate of \$0.06 per kilowatt-hour

Executive Summary

- The bitcoin network is now less than 3% away from reaching the 1 ZH/s milestone.
- Hashprice remained under \$60 per PH/s even as bitcoin's spot price approached \$120,000.
- The top four public miners accounted for 19.07% of July's total block rewards.
- Updated U.S. import tariffs: 57.6% for China; 21.6% for Indonesia, Malaysia, and Thailand.
- AI/HPC expansions and Ethereum treasury strategies drove the largest gains among certain bitcoin mining stocks.

Network Review

Bitcoin's network hashrate, which had dipped into the 800 EH/s range over the past two months due to widespread summer curtailments, has since rebounded. The seven-day moving average climbed to a new record above 970 EH/s in early August, pushing mining difficulty to an all-time high of 129 trillion.

While the pace of hashrate growth has largely plateaued since the start of 2025, the network is now within striking distance of the 1 ZH/s milestone — requiring just under a 3% increase from the current peak. With this recovery in network capacity, hashprice has remained subdued, staying below \$60/PH/s even as Bitcoin's spot price rallied toward \$120,000. This reflects ongoing compression in miner margins, as difficulty growth continues to offset gains from price appreciation.

Transaction fee revenue also continued to contract. In July, fees accounted for just 0.985% of total monthly block rewards — the first time this share has fallen below 1%.

Company Update

In last month's report, we noted that the four largest public Bitcoin miners — MARA, IREN, CleanSpark, and Cango — collectively reached a record-high market share. July production data confirms this trend: together, these companies mined 19.07% of all block rewards, despite three of them — all except IREN — realizing less than 90% of their deployed hashrate.

IREN stood out with the highest fleet utilization rate among public miners, enabling it to outproduce MARA and take the lead in realized hashrate for the month.

Several second-tier miners also reported notable gains. Cipher Mining grew realized hashrate by 26.46% month-over-month, driven by the energization of its Black Pearl site in Texas. HIVE Digital increased realized hashrate by 17.03%, supported by continued energization at its Paraguay operations. Bitdeer deployed additional SEALMINERs resulting in a 39% production increase and pushing realized hashrate to 17.6 EH/s.

Bitcoin's Hashrate Growth Plateaus in 2025

Unit: exahash per second

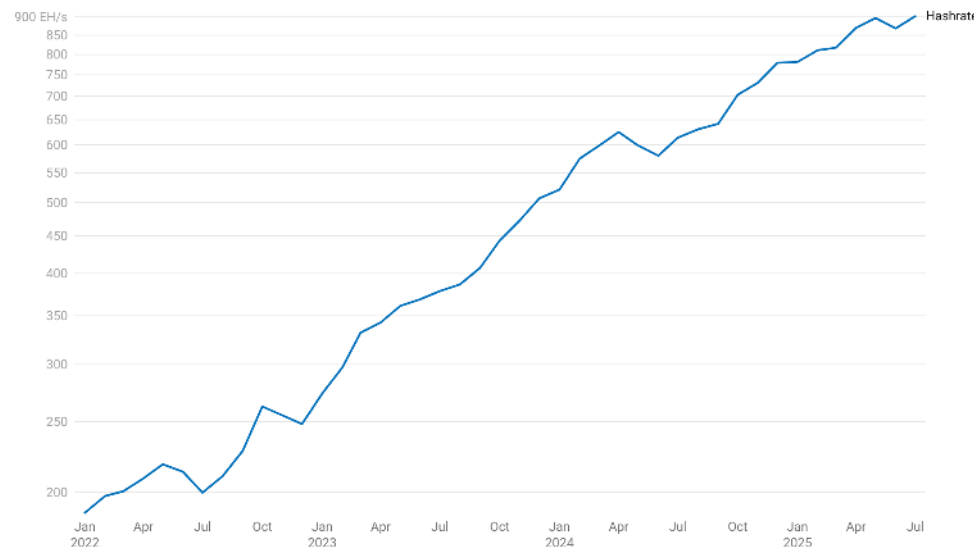


Chart: TheMinerMag • Source: TheMinerMag

July 2025 Bitcoin Mining Updates

Unit: Number of BTC, percentage, and exahash per second

	Production	Holdings	Liquidation Ratio	Realized Hashrate	MoM Realized Hashrate Growth
IREN	728 BTC	0 BTC	100%	45.5 EH/s	11.02%
MARA	703 BTC	50,639 BTC	0.57%	43.9 EH/s	-6.78%
CLSK	671 BTC	12,703 BTC	85.84%	41.9 EH/s	-7.39%
CANG	651 BTC	4,530 BTC	0%	40.7 EH/s	36.67%
RIOT	484 BTC	19,287 BTC	97.11%	37.8 EH/s	13.64%
BTDR	282 BTC	1,667 BTC	41.49%	17.6 EH/s	31.34%
CIFR	208 BTC	1,219 BTC	25%	13.4 EH/s	26.46%
HIVE	203 BTC			12.7 EH/s	17.03%
CORZ	180 BTC			11.2 EH/s	-9.04%
CAN	89 BTC	1,511 BTC	69.66%	5.6 EH/s	-4.38%
FUFU	83 BTC	1,784 BTC	109.64%	5.2 EH/s	35.3%

Realized hashrate includes BTC equivalent from proprietary hashrate used beyond direct mining, such as power credits and cloud mining

Chart: TheMinerMag • Source: SEC Filings

US Tariff Update

The White House has finalized new reciprocal tariff rates on several Southeast Asian countries, effective August 7, 2025. For bitcoin mining machines, this translates into a 57.6% tariff rate on China origin, 21.6% tariff rates on Indonesia, Malaysia and Thailand origins, respectively, per a reference update by Nile Freight Solutions.

The updated rates come as two major U.S.-listed bitcoin miners, IREN and CleanSpark, have disclosed receiving invoices from U.S. Customs and Border Protection (CBP) related to alleged Chinese origin of certain mining rigs imported in 2024. CleanSpark warned that if CBP's position were upheld, its potential tariff liability could reach \$185 million. IREN has also faced a \$100 million dispute with CBP under similar circumstances. Both companies are challenging CBP's claims.

Meanwhile, American Bitcoin Corporation has exercised an option to purchase approximately 14 EH/s worth of Antminer U3S21EXPH machines from Bitmain, part of a \$320 million deal. The move underscores Bitmain's continued push to move hardware into the U.S., including a recent shipment of 200 tons of electronic parts, as the manufacturer seeks to mitigate tariff risks by ramping up its U.S. distribution footprint.

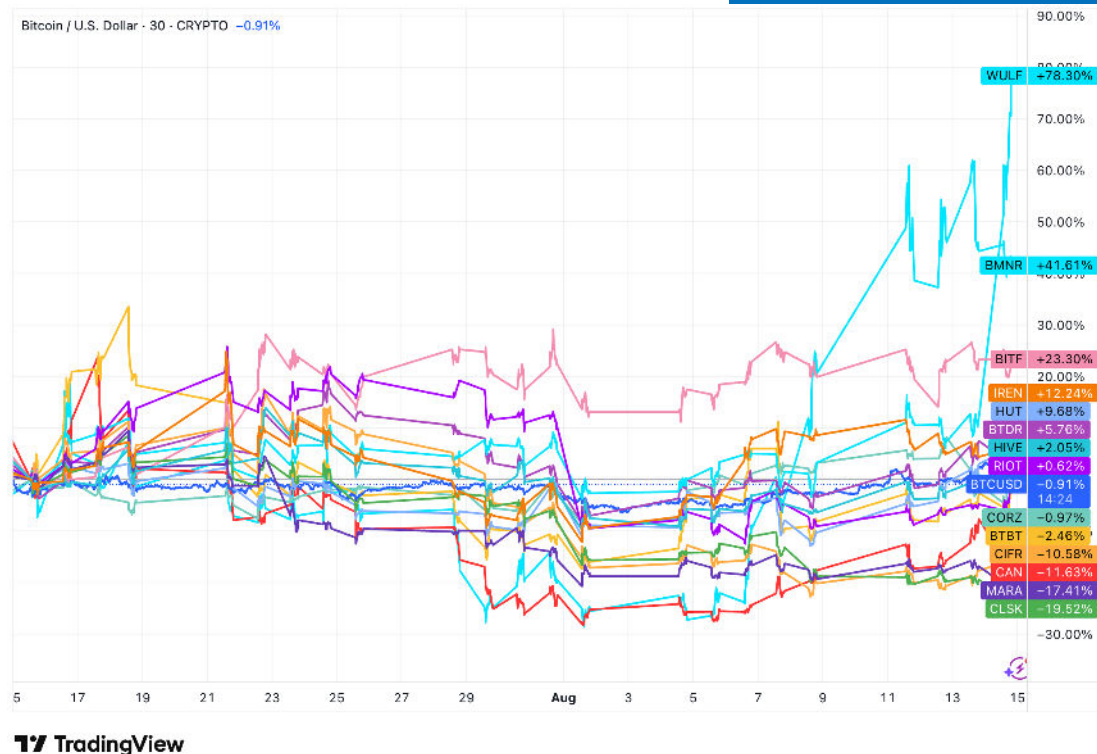
Terawulf Surges 50% on HPC Deal

Terawulf has emerged as the top-performing bitcoin mining stock over the past month, with shares climbing 50% following the announcement of HPC deal backed by Google.

The move underscores growing investor preference for miners pivoting toward AI and HPC infrastructure as bitcoin mining margins remain compressed. Bitfarms also posted strong gains of 23.3%, while IREN and Hut 8 rose 12.2% and 9.7%, respectively.

Meanwhile, BitMine's Ethereum treasury strategy has continued to attract attention — and hype — as its ETH holdings quickly surpassed those of SharpLink over the past month.

By contrast, pure-play bitcoin miners continued to lag behind. Canaan, MARA, and CleanSpark all posted double-digit losses, reflecting persistent market caution toward operators reliant solely on bitcoin mining revenue.



ICYMI

- [Canaan](#) to Supply Cipher With Bitcoin Miners From US Facility
- [Mawson](#) CEO Fired Amid Accusations of Fraud and Misconduct
- [Bitfarms](#) Launches Share Buyback as Riot Trims Stake Below 10%
- [MARA](#) Plans \$1 Billion Convertible Notes to Bolster Bitcoin Holdings
- [Antalpha](#) Founder Takes Chair at Cango as Mining Pivot Concludes
- [Bitmain](#) Funnels 187 Tons of Antminer Parts to Skirt US Tariffs
- [Bitmain](#) Plans First US Factory by Q3 in Trump Gambit
- [Bitzero](#) secures \$25m in funding to power mining operations
- [Auradine](#) Shipped \$73M Worth of Bitcoin Miners to MARA in H1 2025
- [MARA](#)'s Bitcoin Deployment Implies Up to 6.5% Annualized Yield
- [American Bitcoin](#) Nears Public Listing as Merger Schedule Set
- [MARA, Riot](#) Diverge on Bitcoin Mining Financing in Q2
- [Cipher, Cango](#) Boost Output as Network Hashrate Hits New Record
- [IREN](#) Tops MARA in July Bitcoin Production
- [Greenidge](#) to Sell Mississippi Bitcoin Mine for \$3.9M
- [Canaan](#) Exits Kazakhstan and South Texas Sites Amid Fleet Reshuffle
- [CleanSpark](#) Faces \$185M Tariff Risk Over Bitcoin Miner Imports
- [Ethiopia](#) to Wind Down Bitcoin Mining Citing Grid Strain
- [Rumble](#) Mulls Northern Data Takeover as Peak Mining Set for \$235M Sale
- [CleanSpark](#) Chair Matt Schultz Returns as CEO; Bradford Departs With \$2.53M, Bitcoin and Equity
- [Cango](#) Buys 50 MW Georgia Bitcoin Mine for \$19.5M
- [MARA](#) to Acquire Majority Stake in EDF's HPC Subsidiary Exaion for \$168M
- [Bitfarms](#) Acquires Land for HPC in US, Exits Argentina Bitcoin Mining
- [American Bitcoin](#) Boosts BTC Reserves With \$205M Purchase
- [Bitdeer](#) Boosts July Bitcoin Production 39% on SEALMINER Deployment
- [Mountain City](#) leaders nix rezoning for Bitcoin facility
- [Block](#) Unveils Proto Rig and Proto Fleet