Bitkern

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INDUSTRY INTELLIGENCE

Bitcoin Mining Report

Q1 2026 — January · February · March

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NAVIGATION

Contents

MARKET & NETWORK

01 · Bitcoin Price, Hashrate, Difficulty 3

02 · Key Events 5

03 · Mining Market Barometers 5

04 · Hardware Landscape 6

SPOTLIGHTS

05 · Hosting Location: Iowa, USA 7

06 · Miner: Bitmain Antminer S23 8

07 · Case Study 9

OUTLOOK

08 · Upcoming Topics 10

THIS ISSUE

Spotlight Previews

FEATURED HOSTING LOCATION

🇺🇸 Iowa, USA

Iowa combines competitive energy rates, high regulatory stability, and scalable infrastructure within the world's largest mining market, the United States. We take a closer look at why this location stands out for hosted deployments in Q1 2026.

FEATURED MINER

⚡ Bitmain Antminer S23

Bitmain's new 3-nm flagship delivers up to 1.16 PH/s and as low as 9.5 J/TH. We break down the full S23 lineup and ask: when does the generational leap actually pay off vs. the proven Bitmain Antminer S21 XP?

CASE STUDY

📊 Oct 2025 vs May 2026

Same capital, different timing. We compare a 10-unit deployment at $6,050/unit in October 2025 against ~15 units at $4,200/unit in May 2026 and show why the current entry window delivers 28% more BTC.

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SECTION 01

Q1 At A Glance · Bitcoin Price, Network Hashrate, Mining Difficulty

BTC PRICE

~$66,890*

▼ -23.75% (QoQ)

Peak: ~$97,310 (Jan)
Low: ~$63,210 (Feb)

NETWORK HASHRATE

~897.97 EH/s*

▼ −19.25% (QoQ)

Peak: ~1,220 EH/s (Mar)
Low: ~698.04 EH/s (Jan)

MINING DIFFICULTY

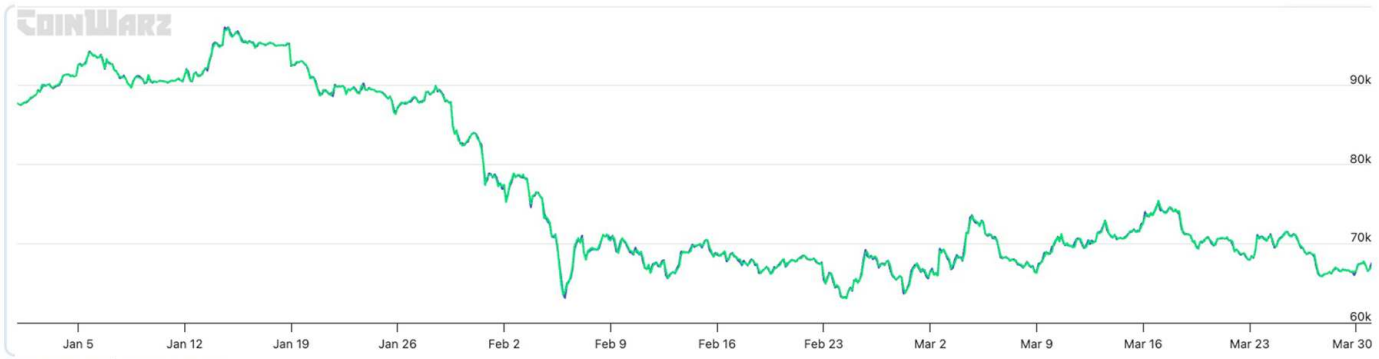
~133.79 T*

▼ −9.75% (QoQ)

Peak: ~148.26 T (Jan)
Low: ~125.86 T (Feb)

*as of 31.03.2026

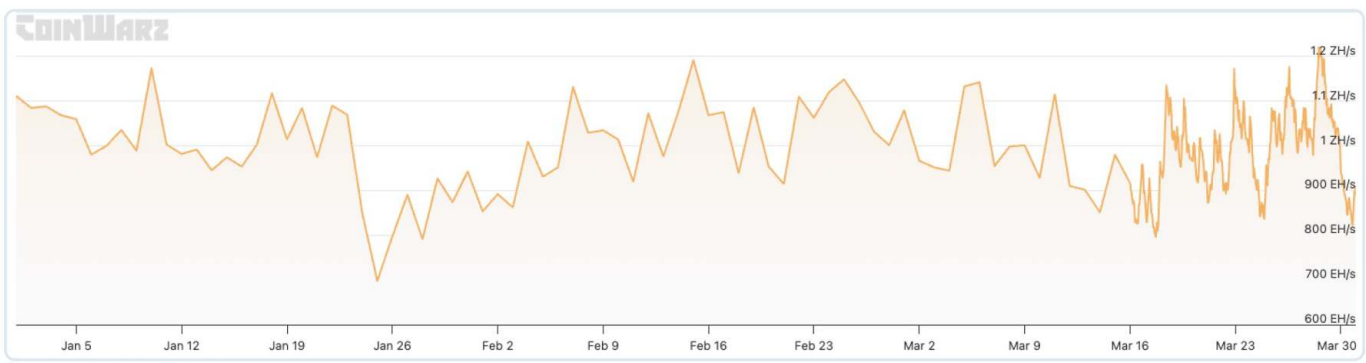
BITCOIN PRICE



Source: coinwarz.com

BTC peaked at ~$97k on institutional ETF inflows, then sold off sharply as the Iran conflict escalated and US tariff fears peaked. Late Q1 saw tentative recovery toward ~$70k before closing at ~$67k.

NETWORK HASHRATE



Source: coinwarz.com

Hashrate swung between ~698 EH/s and ~1.2 ZH/s. Winter Storm Fern knocked US capacity offline in late January. Despite the volatility, overall network hashrate remained elevated.

MINING DIFFICULTY

Source: coinwarz.com

Seven adjustments in one quarter. Difficulty crashed from ~148T to ~126T as miners capitulated due to weather events and shutdowns, recovered to ~145T, then settled at ~134T.

KEY TAKEAWAY

Q1 2026 highlighted how quickly market conditions can shift in Bitcoin mining. Falling BTC prices, energy market uncertainty, and weather-related disruptions increased pressure across the industry, reinforcing the importance of operational efficiency and stable energy access.

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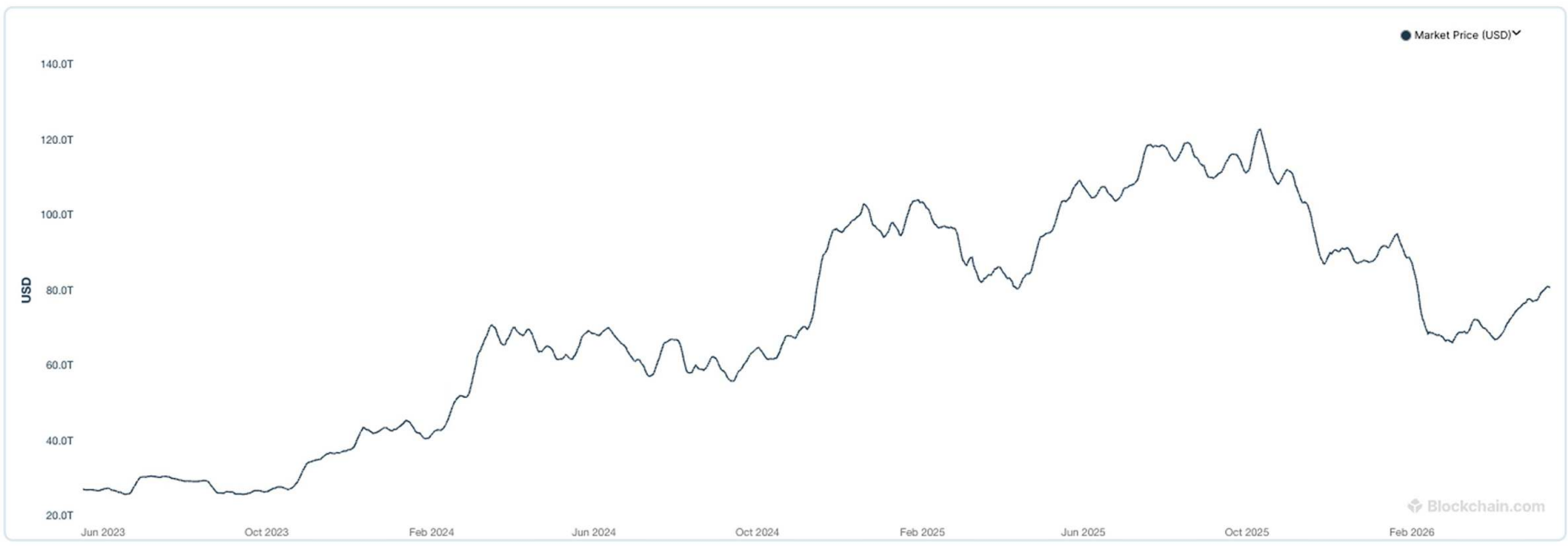
SECTION 01

Overview & Outlook

BITCOIN PRICE



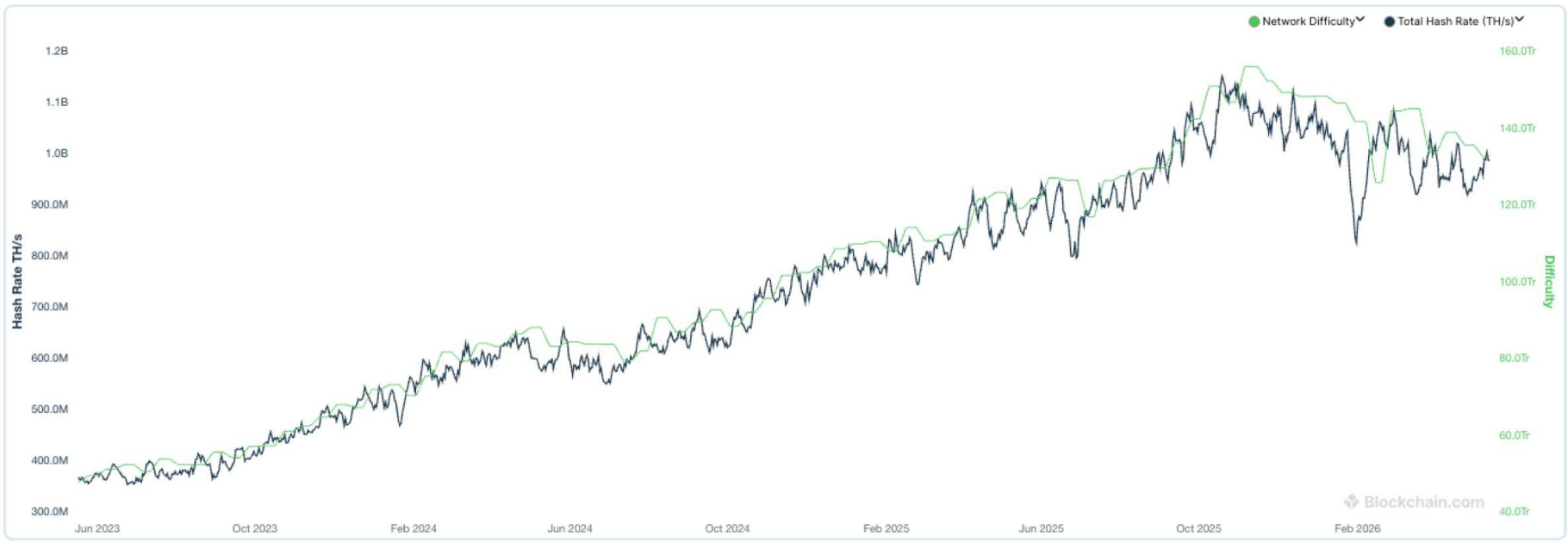
Source: Blockchain.com

OUTLOOK

Over the last three years, Bitcoin has maintained a strong long-term uptrend despite periods of volatility and macro uncertainty. Following the 2025 highs, Q1 2026 brought a broader market correction and weaker sentiment.

Looking ahead, institutional adoption and growing global interest continue to support Bitcoin's long-term outlook, while short-term volatility is expected to remain part of the market cycle.

NETWORK HASHRATE & MINING DIFFICULTY



Source: Blockchain.com

OUTLOOK

Over the past three years, Bitcoin's hashrate and mining difficulty have grown significantly, reflecting continued investment in mining infrastructure and hardware efficiency worldwide.

Looking forward, competition among miners is expected to intensify further, making access to efficient hardware and low-cost energy increasingly important for sustainable operations.

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SECTION 02

Key Events

Date	Event	Detail	Learn more
Jan–Feb	**BTC drops from ~$97k to ~$63k**	After peaking at ~$97k, a combination of macro shocks drove BTC to its lowest level since Q4 2024.	Link: Finance Magnates
Jan	**Winter Storm Fern**	US miners shut down to push power back to the grid during Winter Storm Fern, the largest winter storm since 2016.	Link: Blockspace
Feb	**Trump Tariff Escalation**	Trump's 15% global tariff announcement reintroduced trade policy uncertainty and triggered a broad risk-off wave.	Link: CoinDesk
Feb-Mar	**Iran conflict**	The Iran conflict spiked global energy prices, forcing miners in affected regions to reduce operations and lowering hashrate.	Link: cryptorank
Jan–Mar	**Miners pivot to AI & HPC**	Public miners pivot away from Bitcoin toward AI data centers, liquidating BTC reserves to fund the shift.	Link: BTC Magazine

SECTION 03

Bitcoin Mining Market Barometers

BITCOIN FEAR AND GREED INDEX

Extreme Fear

PROFITABILITY BAROMETER HASH PRICE

Near 12-Month Low

BTC MINING ENTRY BAROMETER

Favorable

The index ranges from 0 (extreme fear) to 100 (extreme greed). Low values signal oversold conditions and potential buying opportunities, while high values may indicate an overbought market.

Hash Price measures revenue generated by miners per terahash per day. The 12-month range of $34–$74/PH/day provides context for the current reading of $36, near the lower bound.

The Entry Barometer combines five weighted factors: ASIC price, payback period, BTC MVRV, difficulty, and hashprice, into a score from 0 to 100. At 77 current conditions signal a structurally attractive entry window.

Qualitative assessment as of 31.03.2026. No investment advice.

KEY TAKEAWAY

All three barometers paint the same picture: Q1 2026 was a period of maximum pain for miners, but historically, that's exactly when the best deployment opportunities emerge. Extreme Fear sentiment, Hash Price near cycle lows, and a favorable Entry Barometer together create a rare alignment that has preceded strong recoveries in previous cycles.

Important Information:The Entry Barometer shown in this report is a graphical representation of a technical indicator (Hash Ribbon) based on publicly available Bitcoin network data. It is provided for informational purposes only and offers a structural view of current network conditions in Bitcoin mining. The barometer is a heuristic instrument and does not constitute investment advice, a recommendation, or any solicitation relating to assets, mining hardware, crypto-assets, or financial instruments. It is neither a forecast nor a guarantee of future outcomes. Past market patterns are not a reliable indicator of future developments, and underlying conditions can change materially without notice. Bitkern Group AG accept no liability for the accuracy, completeness, or timeliness of the data underlying the indicator, nor for decisions taken on the basis of the figures displayed. Independent verification and, where appropriate, professional advice should be sought prior to any business decision.

SECTION 04

Hardware Landscape · Current Bestsellers

BITMAIN — ANTMINER SERIES				
MODEL	COOLING	HASHRATE (TH/S)	W/TH (J/TH)	USP
Antminer S23 Hydro	Hydro	580 TH/s	9.5	*Highest hashrate per unit available*
Antminer S23	Air	305 TH/s	11.5	*Best air-cooled efficiency on market*
Antminer S21 XP Hydro	Hydro	473 TH/s	12.0	*Ultra-high density at proven reliability*
Antminer S21 XP	Air	270 TH/s	13.5	*Most deployed high-efficiency air unit*
Antminer S21 Pro	Air	234 TH/s	15.0	*Best price-to-performance ratio*
Antminer S21+	Air	235 TH/s	16.5	*Lowest entry cost in current generation*
Antminer S21E Hydro	Hydro	332 TH/s	17.0	Most affordable hydro unit in portfolio

MICROBT — WHATSMINER SERIES				
MODEL	COOLING	HASHRATE (TH/S)	W/TH (J/TH)	USP
Whatsminer M63S+	Hydro	420 TH/s	17.0	*Highest hydro throughput by MicroBT*
Whatsminer M70S	Air	260 TH/s	13.5	*Best efficiency in Whatsminer lineup*
Whatsminer M70	Air	240 TH/s	14.5	*Proven stability under continuous load*
Whatsminer M61S+	Air	238 TH/s	17.0	*Lowest early failure rate in class*

OTHER MANUFACTURERS					
MODEL	MANUFACTURER	COOLING	HASHRATE (TH/S)	W/TH (J/TH)	USP
Sealminer A2 Pro	Bitdeer	Air	256 TH/s	14.9	*Designed for professional environments*
Avalon 15 Pro	Canaan	Air	221 TH/s	16.8	*Reliable alternative to Bitmain fleet*

BITKERN PRICING SHEET

For current pricing and hosting options visit the Bitkern Pricing Sheet.

SECTION 05 · SPOTLIGHT

Iowa, USA

🇺🇸 Iowa · The Midwest's Rising Mining Hub

Iowa offers a compelling combination of competitive energy pricing, high regulatory stability, and scalable grid infrastructure within the United States, the world's largest Bitcoin mining market.

📊 KEY FACTS

USA

EST. GLOBAL HASHRATE	LARGEST OPERATORS
~35–40%	RIOT, CLEANSPARK, MARA, CORE SCIENTIFIC, IREN, etc.

IOWA

ELECTRICITY PRICING	REGIONAL STABILITY	ENVIRONM. CONDITION	SCALABILITY
MEDIUM	HIGH	MEDIUM	HIGH

BITKERN IOWA SITES

AVG. HOSTING COST	SITE CAPACITY
$0.068–0.075/kWh	210 MW

✅ ADVANTAGES

- Diverse energy mix incl. high share of renewables (wind)
- Highly scalable grid infrastructure
- Deep local talent pool & service ecosystem
- Pro-mining regulatory signals in the US
- Largest & most liquid capital markets

⚠️ CHALLENGES

- AI/HPC competition for power capacity
- Higher all-in costs vs. emerging markets
- Energy cost volatility
- Climate-related operational risks (winter storms, grid stress)

WHY IOWA STANDS OUT IN Q1 2026

Iowa is one of the leading US states for wind energy, with ~58% of its electricity generated from wind and ~63% from low-carbon sources overall. Combined with access to the MISO & SPP wholesale power market, declining fossil fuel dependency, and growing data center infrastructure across the state, Iowa offers an increasingly attractive environment for energy-intensive operations like Bitcoin mining.

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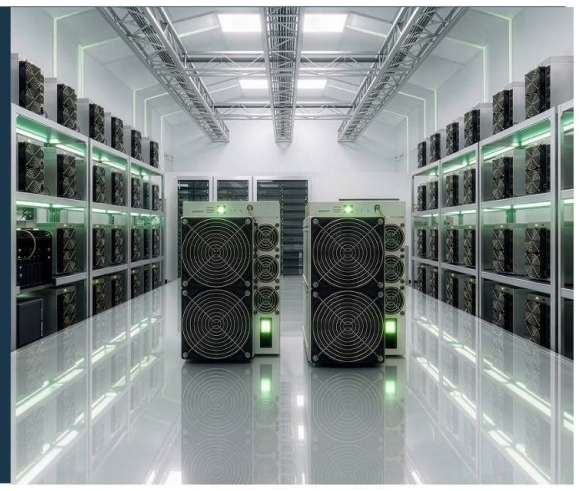
SECTION 06 · SPOTLIGHT

Bitmain Antminer S23

Bitmain's Next-Gen Flagship

The Antminer S23, introduced in April 2025, marks a significant technological leap in Bitcoin mining. Built on a new 3-nm ASIC architecture, it delivers substantially improved performance and energy efficiency compared to all previous generations.



MODEL	HASHRATE	POWER	EFFICIENCY	COOLING
S23 Standard	305 TH/s	3,498 W	11.5 J/TH	Air
S23 Immersion	442 TH/s	5,304 W	12 J/TH	Immersion
S23 Hydro	580 TH/s	5,510 W	9.5 J/TH	Hydro
S23 Hydro 3U	1.160 TH/s	11,020 W	9.5 J/TH	Hydro

KEY IMPROVEMENTS

- 3-nm architecture
- S23 Standard: most efficient air-cooled miner on the market
- S23 Hydro 3U: exceeds 1 PH/s, new benchmark for industrial farms

EFFICIENCY ACROSS GENERATIONS

- S19 Gen: ~21–35 J/TH — no longer competitive
- S21 Gen: ~13–17 J/TH — solid, still deployed widely
- S23 Standard: 11.5 J/TH — best-in-class air-cooled
- S23 Hydro: 9.5 J/TH — industrial benchmark

Antminer S23 vs Antminer S21 XP · A Comparison

New hardware generations constantly promise better performance in Bitcoin mining. But the key question remains the same: does upgrading to the latest model actually pay off? We take a practical look at one of the most relevant comparisons on the market right now: the Bitmain Antminer S23 Standard vs. the Bitmain Antminer S21 XP.

MODEL	HASHRATE	EFFICIENCY	AVAILABILITY	ALL-IN PRICE
Antminer S23 Standard	305 TH/s	11.5 J/TH	PREORDER JUNE 2026	from $8,980
Antminer S21 XP	270 TH/s	13.5 J/TH	IN STOCK	from $4,370

KEY TAKEAWAY

The S21 XP offers a fast, predictable entry: in stock, operational within 24 hours, and a cost structure that suits operators who prioritise capital efficiency and flexibility. Those seeking maximum efficiency over a long operating period with the necessary budget will consider the S23. For most operators entering the market today, the S21 XP remains the stronger risk-adjusted choice.

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SECTION 07 · SPOTLIGHT

Case Study · October 2025 vs May 2026

Antminer S21 XP 270T

OCTOBER 2025

$60,500

Total Purchase Price

UNITS	PRICE / UNIT
10	$6,050

CALCULATION PARAMETERS

Hosting Location	USA
Hosting Tariff	$0.075 / kWh
Uptime	98%
BTC Price	$125,000
Difficulty	151 T

MAY 2026

$60,500

Total Purchase Price

UNITS	PRICE / UNIT
14.41 ▲ +44%	$4,200 ▼ −31%

CALCULATION PARAMETERS

Hosting Location	USA
Hosting Tariff	$0.070 / kWh
Uptime	98%
BTC Price	$81,000
Difficulty	132 T

MINING-OUTPUT COMPARISON · 60 MONTHS · INCL. HALVING

TOTAL BTC MINED — MINE & HOLD

1.451 BTC

METRICS	MINE & HOLD	MINE & SELL FOR OPEX*	DIRECT BTC PURCHASE
BTC after 60 mo.	1.451	0.563	0.484
SELLING SCENARIO			
BTC @$50k	$72,569	$28,134	$24,200
BTC @$150k	$217,706	$84,401	$72,600
BTC @$300k	$435,412	$168,802	$145,200
BTC @$500k	$725,686	$281,336	$242,000
BTC @$1M	$1,451,372	$562,672	$484,000

* Partial BTC Sale to Cover Operational Costs

TOTAL BTC MINED — MINE & HOLD

1.852 BTC ▲ +28%

METRICS	MINE & HOLD	MINE & SELL FOR OPEX*	DIRECT BTC PURCHASE
BTC after 60 mo.	1.852	0.840	0.747
SELLING SCENARIO			
BTC @$50k	$92,581	$41,999	$37,346
BTC @$150k	$277,743	$125,998	$112,039
BTC @$300k	$555,486	$251,996	$224,078
BTC @$500k	$925,810	$419,993	$373,463
BTC @$1M	$1,851,620	$839,986	$746,926

* Partial BTC Sale to Cover Operational Costs

CALCULATION BASIS - NOTE:

Through May 2026: actual BTC price & network difficulty data. From June 2026, values are based on modeled assumptions (+3% monthly BTC price growth, +1.5% monthly difficulty increase). The halving is modeled as a one-time −25% difficulty drop, followed by the same +1.5% monthly difficulty increase. These are illustrative projections, not forecasts. Actual network conditions and market prices will differ from these assumptions.

This document contains illustrative projections provided for informational purposes only. The figures are based on assumptions and may vary significantly from actual results. Please refer to the full disclaimer below.

SECTION 8

Upcoming Topics

PREVIEW

Bitmain Deep Dive, Ethiopia, Air vs. Hydro

Spotlight: Bitmain

Full manufacturer deep dive: product roadmap, track record, batch variance analysis, and how Bitmain plans to defend its 65–70% market share against MicroBT.

BITMAIN

Spotlight: Hosting Location Ethiopia

East Africa's fastest-growing mining hub: geopolitical risks, power access, licensing status, and boots-on-the-ground realities.

Spotlight: Air vs. Hydro Mining

Full technical and economic breakdown: when does liquid cooling make sense? Real comparison, infrastructure requirements, and the case for 2026.

Any Questions?

Book your 1:1 call with one of our experts.

Free of charge · No obligation · 30 min session

Scan to book

Book your call →

DATA SOURCES

Section 1:

https://www.coinwarz.com/prices/bitcoin/chart

https://www.coinwarz.com/mining/bitcoin/hashrate-chart

https://www.coinwarz.com/mining/bitcoin/difficulty-chart

https://www.blockchain.com/explorer/charts/market-price

https://www.blockchain.com/de/explorer/charts/hash-rate

https://www.blockchain.com/explorer/charts/difficulty

Section 2:

https://www.financemagnates.com/trending/why-bitcoin-is-falling-btc-price-drops-for-4-days-below-63k/

https://blockspace.media/insight/bitcoin-hashrate-drops-8-as-us-miners-curtail-during-winter-storm-fern/

https://www.coindesk.com/markets/2026/02/21/bitcoin-price-slips-after-trump-hikes-worldwide-tariff-to-15-from-10-despite-supreme-court-decision

https://cryptorank.io/news/feed/f90c5-bitcoin-hashrate-iran-war-pressure

https://bitcoinmagazine.com/business/public-bitcoin-miners-are-dumping-bitcoin-for-ai-a-historic-mistake

Section 3:

https://charts.bitbo.io/fear-greed/

https://charts.bitbo.io/hash-price/

https://charts.bitbo.io/hash-ribbons/

Section 4:

https://docs.google.com/spreadsheets/d/10O0Y82CkDCVfRkMXV3EdtriKFS3EzW60zTzIFChhKQA/edit?gid=0#gid=0

Section 5:

https://data.hashrateindex.com/network-data/global-hashrate-heatmap

https://lowcarbonpower.org/region/Iowa

Section 6:

https://www.bitmain.com/

https://docs.google.com/spreadsheets/d/10O0Y82CkDCVfRkMXV3EdtriKFS3EzW60zTzIFChhKQA/edit?gid=0#gid=0

Section 7:

https://whattomine.com/coins/1-btc-sha-256?cost=0.1&cost_currency=USD&hr=580.0&p=5510.0

https://docs.google.com/spreadsheets/d/10O0Y82CkDCVfRkMXV3EdtriKFS3EzW60zTzIFChhKQA/edit?gid=0#gid=0

Disclaimer

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