



MARATHON[®]
DIGITAL HOLDINGS

**Securing & Supporting the
Bitcoin Ecosystem**

NASDAQ: MARA

DECEMBER 2022

SAFE HARBOR STATEMENT

Statements made in this presentation include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements can be identified by the use of words such as “may,” “will,” “plan,” “should,” “expect,” “anticipate,” “estimate,” “continue,” or comparable terminology. Such forward-looking statements are inherently subject to certain risks, trends and uncertainties, many of which the Company cannot predict with accuracy and some of which the Company might not even anticipate and involve factors that may cause actual results to differ materially from those projected or suggested. Readers are cautioned not to place undue reliance on these forward-looking statements and are advised to consider the factors listed above together with the additional factors under the heading “Risk Factors” in the Company's Annual Reports on Form 10-K, as may be supplemented or amended by the Company's Quarterly Reports on Form 10-Q. The Company assumes no obligation to update or supplement forward-looking statements that become untrue because of subsequent events, new information or otherwise.

DISCLAIMER

This presentation is not intended to be and should not be considered as forward-looking statements by the Company. It is impossible to forecast what the price of bitcoin, hash rate, or the difficulty rate will be on any specific date, including during 2023, when all the Company's miners are expected to be deployed. This presentation is for illustrative purposes only to provide the reader with an estimate of the Company's potential gross revenue, mining power and hosting costs, which might be attained if all miners were deployed as of a specific date and with certain parameters used, as set forth below. The parameters used were network hash rate projections from BitOoda's research reports along with Marathon's internal research efforts as well as bitcoin price ranging from \$12,100 - \$29,100.

INVESTOR NOTICE

Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risks, uncertainties and forward-looking statements described under "Risk Factors" in Item 1A of our most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2021. If any of these risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the value of our securities could decline, and you could lose part or all of your investment. The risks and uncertainties we describe are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. In addition, our past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results in the future. Lastly, with the current worldwide situation caused by COVID-19, there can be no assurances as to when we may see any long-term sustained recovery in the bitcoin market, and if so, whether any recovery might be significant.

Recent Company Highlights

TICKER SYMBOL

MARA

Share Price	\$3.88
Market Cap	\$453.3M
Avg. Daily Trading Volume	19.9M
AS OF DEC 16, 2022 ¹	

RECENT CORPORATE UPDATES

- \$61.7 Million in Unrestricted Cash
AS OF NOV 30, 2022²
- \$72.1 Million in Unrestricted BTC (4,200 BTC)
AS OF NOV 30, 2022²
- 69,000 Miners in Operation → 7.0 EH/s
AS OF DEC 1, 2022²
- Transitioned Out of Hardin, MT Facility in September 2022
AS OF SEPT 30, 2022³
- 3,669 BTC Produced Year-To-Date
AS OF NOV 30, 2022²

Note: See slide 34 for all footnoted items.

Marathon at-a-Glance

AGILE, SCALABLE, & SUSTAINABLE

OUR MISSION

To support the development and security of the world's first public blockchain (Bitcoin) by building one of the largest, most agile, and most sustainably operated bitcoin mining operations in the world.

OUR STRATEGY

Invest in Miners > Infrastructure
Prioritize efficiency and minimize costs

OUR FOCUS

Increasing hash rate (probability of earning bitcoin)



Growing from 3.8 EH/s in September 2022 to 23 EH/s in mid 2023⁴

OUR IMPACT

Deploying at renewable power stations



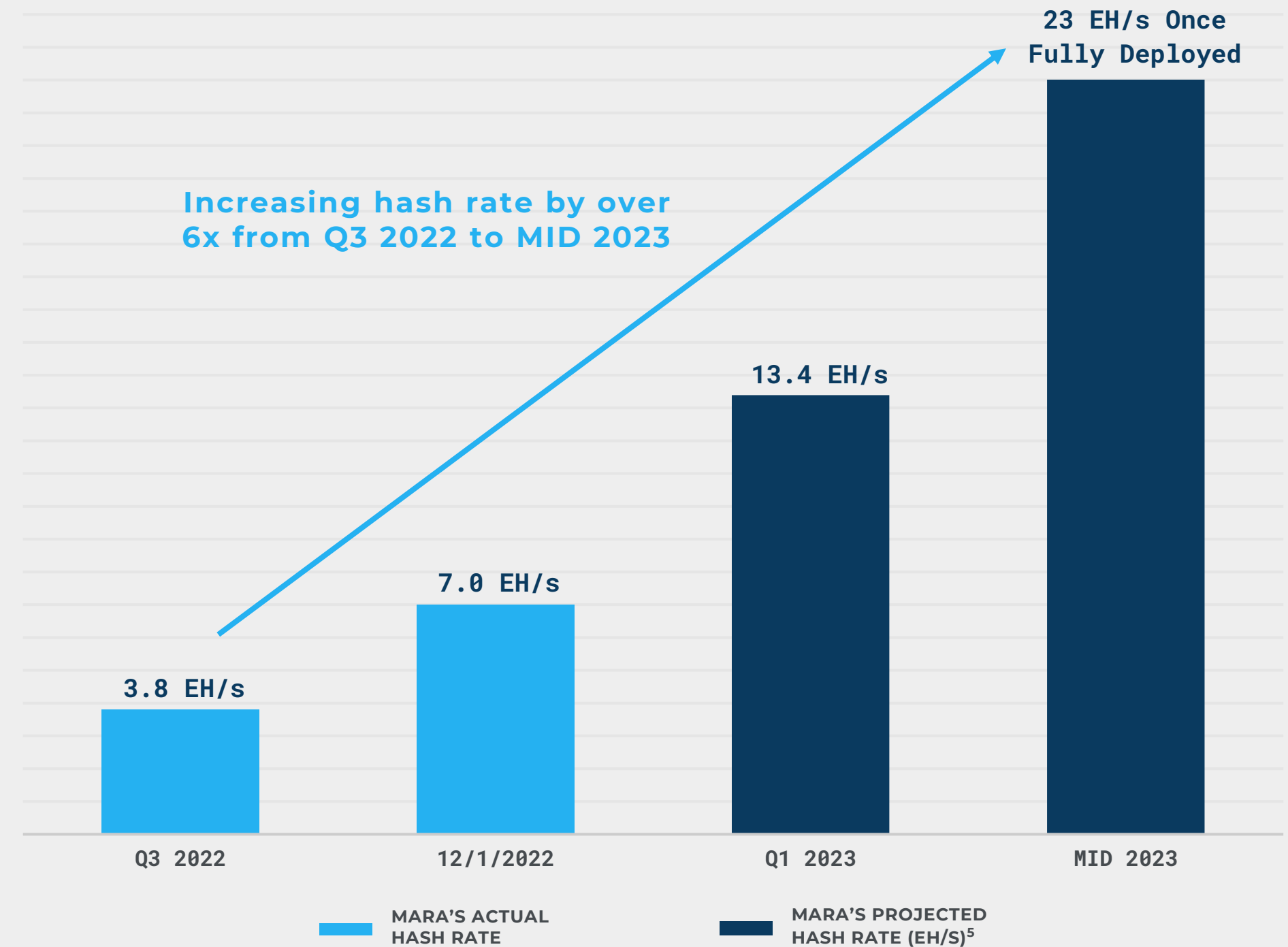
On track to be 100% carbon neutral
Returning energy back to the grid in times of crisis

Operating with low costs of power + hosting



Strong relationships with multiple hosting companies and energy providers

PROJECTED HASH RATE GROWTH



Scale + Low Cost of Operations → Resilience & Leverage

In 2023, once all 23 EH/s of miners – with an efficiency of 24.2 J/TH – are installed & energized...

Bitcoin “Bear” Case*

Potentially Higher BTC Production

Price of Bitcoin	\$12,100		
Total Network’s Revenue (per day)	\$10.9M		
Total Network’s Hash Rate	275 EH/s		
Total Networks’ Hash Price (\$ per TH per day)	\$0.04		
Marathon’s % of the Total Bitcoin Network’s Hash Rate	8.4%		
	Per Day	Per Month	Per Year
BTC Produced	78	2,330	28,000
Revenue	\$0.9M	\$28.2M	\$338.8M
Revenue per kWh	\$0.07	\$0.07	\$0.07

Base Case*

Price of Bitcoin	\$21,000		
Total Network’s Revenue (per day)	\$18.9M		
Total Network’s Hash Rate	315 EH/s		
Total Networks’ Hash Price (\$ per TH per day)	\$0.06		
Marathon’s % of the Total Bitcoin Network’s Hash Rate	7.3%		
	Per Day	Per Month	Per Year
BTC Produced	68	2,040	24,450
Revenue	\$1.4M	\$42.8M	\$513.4M
Revenue per kWh	\$0.10	\$0.10	\$0.10

Bitcoin “Bull” Case*

Potentially Improved Financial Performance

Price of Bitcoin	\$29,100		
Total Network’s Revenue (per day)	\$26.2M		
Total Network’s Hash Rate	325 EH/s		
Total Networks’ Hash Price (\$ per TH per day)	\$0.08		
Marathon’s % of the Total Bitcoin Network’s Hash Rate	7.1%		
	Per Day	Per Month	Per Year
BTC Produced	66	1,970	23,690
Revenue	\$1.9M	\$57.5M	\$689.5M
Revenue per kWh	\$0.14	\$0.14	\$0.14

*See slide 31 for detailed overview of assumptions.

Bitcoin vs Internet Users Growth

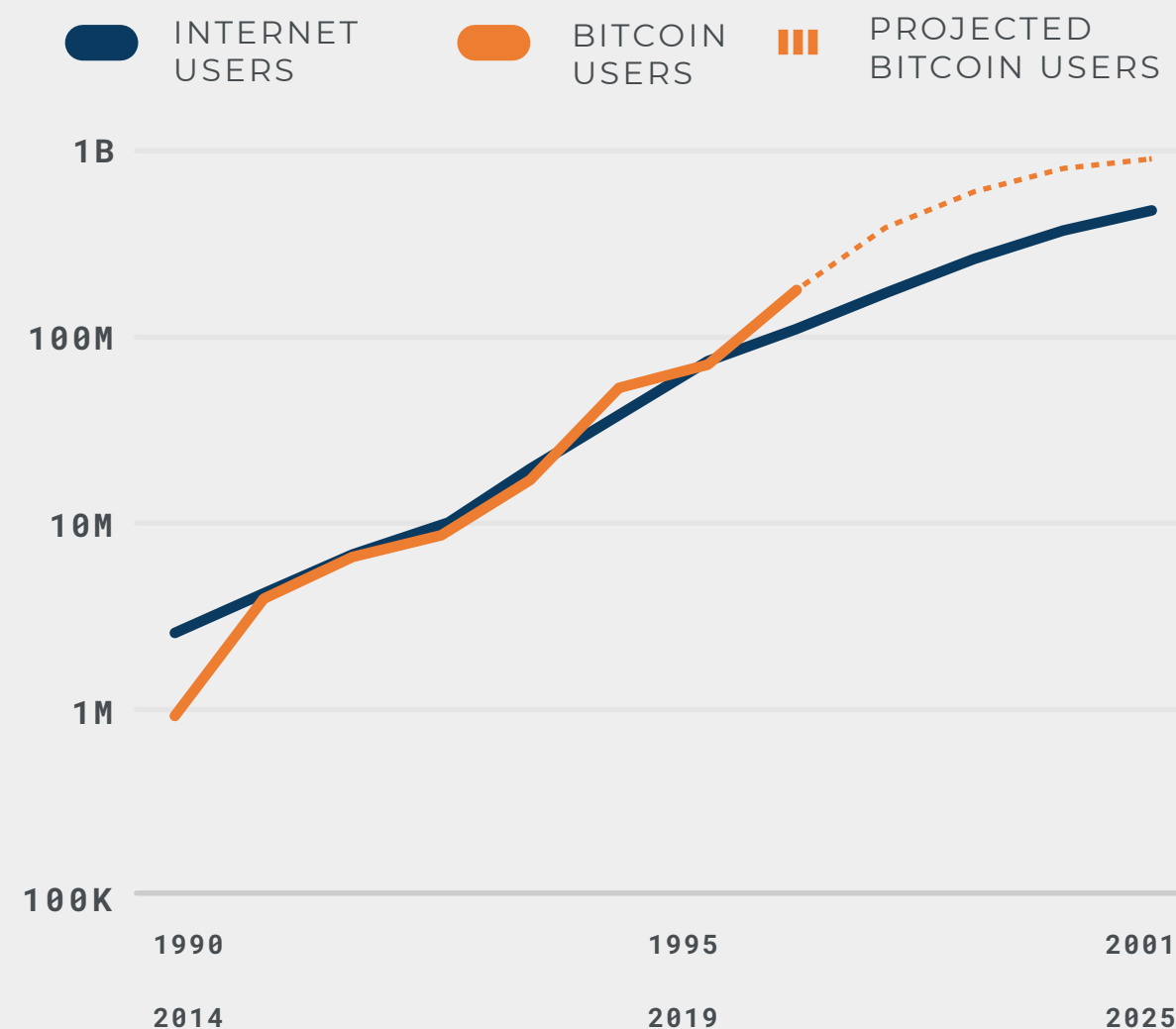
At the end of 2021, there were as many users of Bitcoin as there were Internet users in early 1998, but...

Bitcoin's adoption is growing faster than the Internet's did, with nearly 1 billion users expected by 2025 ⁶

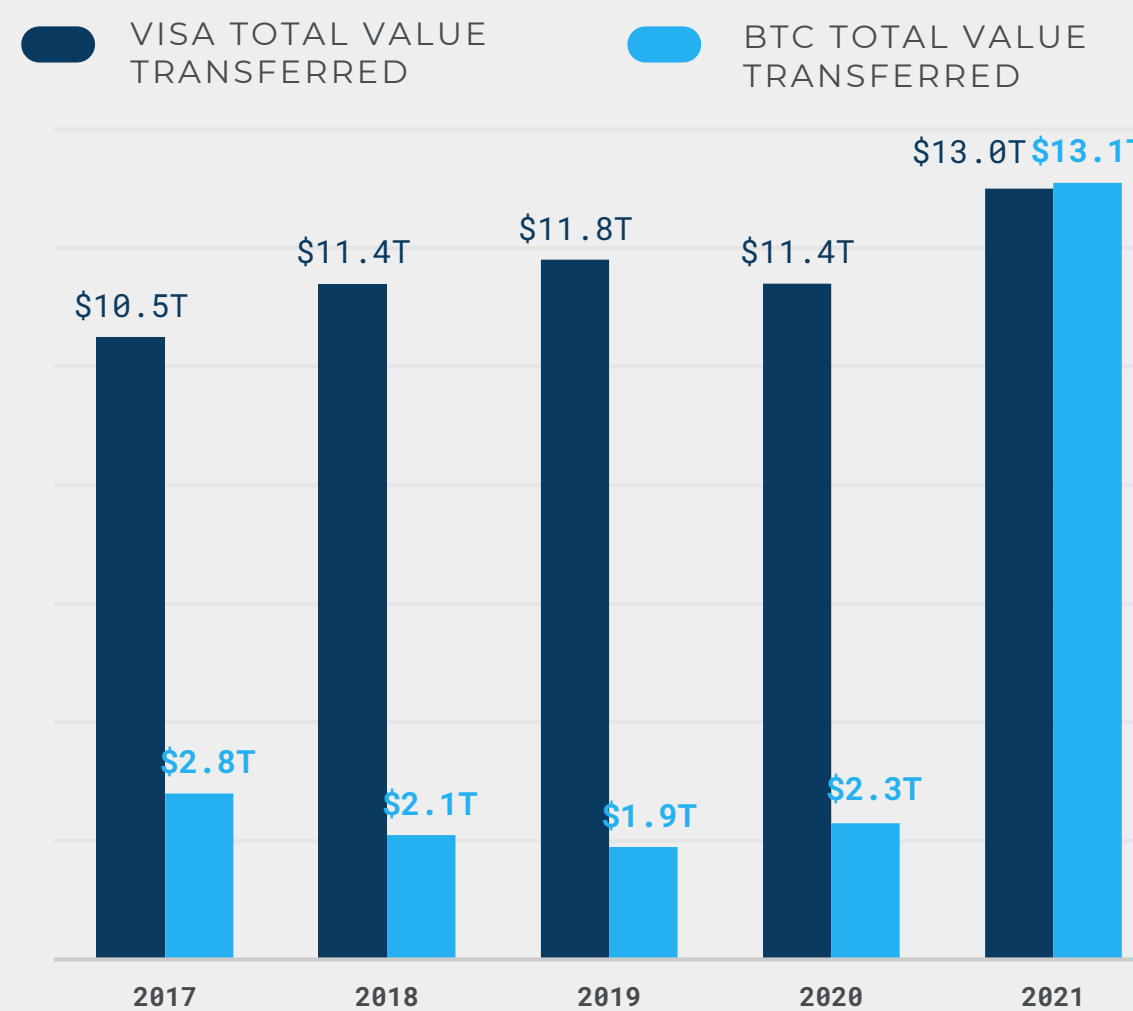
In 2021, Bitcoin processed over \$13 trillion worth of transactions, surpassing Visa

40%+ of on-chain transactions over \$10 million, indicating increased institutional activity

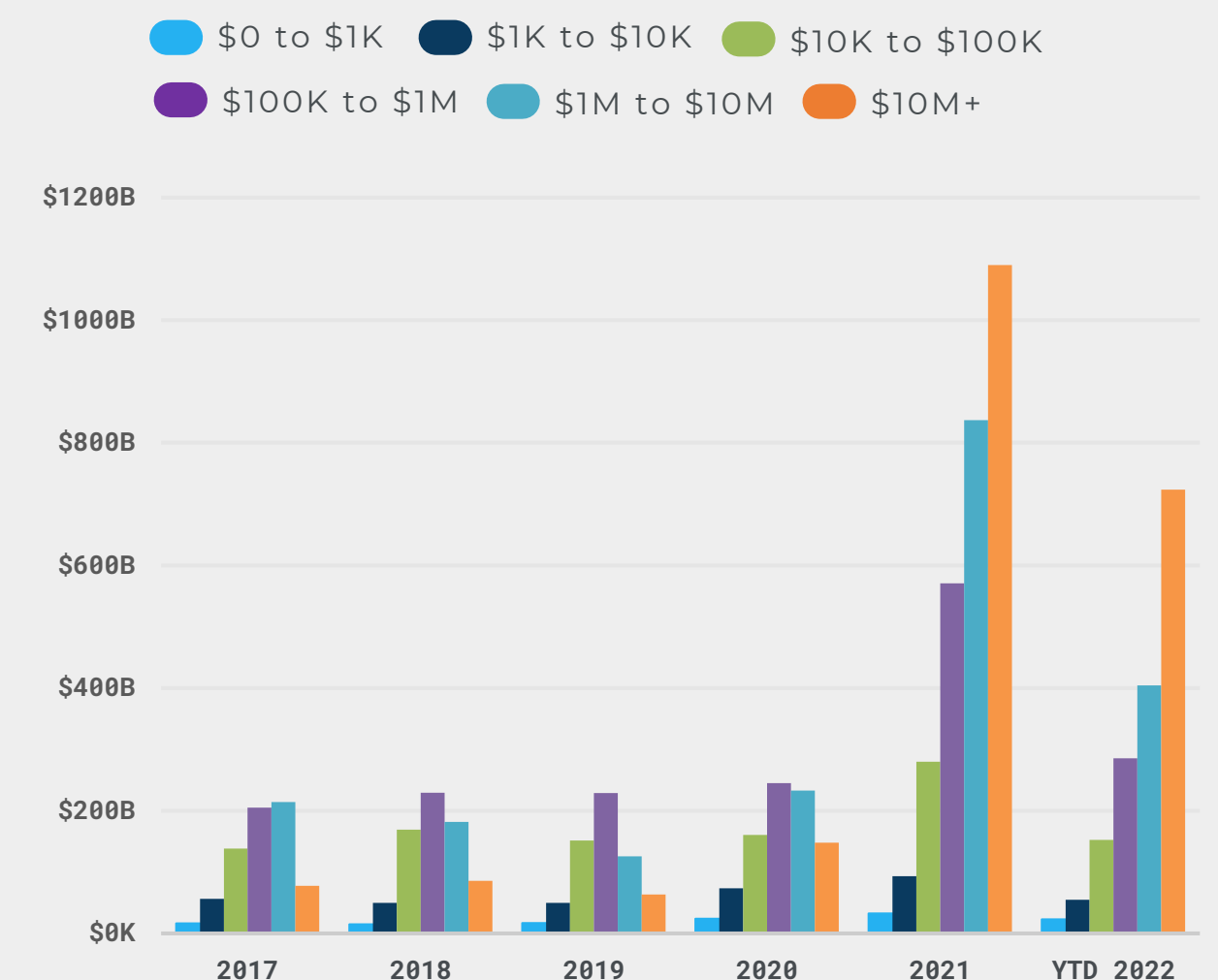
BTC NETWORK'S NUMBER OF USERS⁷



BTC vs. VISA TRANSACTIONS⁸



BTC NETWORK'S TRANSFER VOLUME (\$) ⁹



A Bitcoin Miner of a Different Breed

THIRD QUARTER 2022 HIGHLIGHTS

THE MARATHON MINING METHOD: BE AGILE. GET BIG.

Maximizing return on assets and agility by investing in miners rather than infrastructure
Growing hash rate from 3.8 EH/s in September 2022 to 23 EH/s by mid 2023⁴
~ 25 full-time employees

EFFICIENTLY SCALING

+60% of hash rate powered by S19 XPs (27% more energy efficient than prior generation) when fully deployed
Paying low cost for electricity + hosting
Low-cost production ► profitability in bull markets & resilience in bear markets

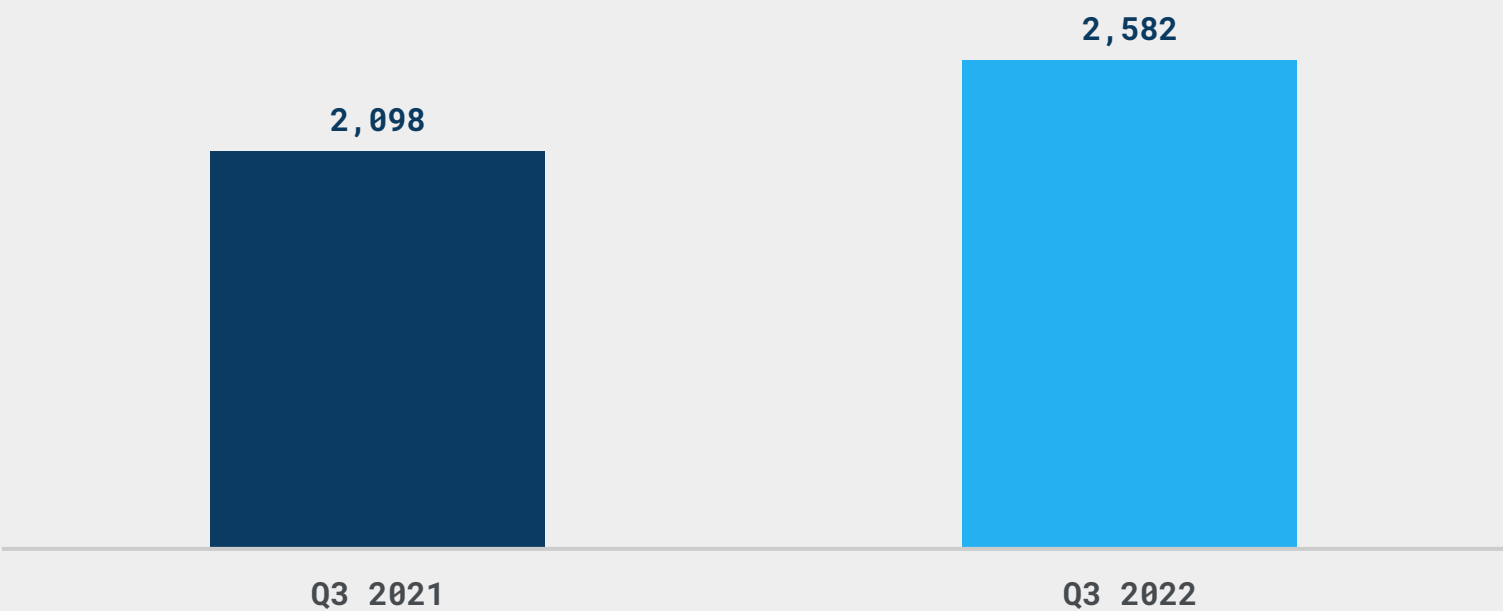
LIQUIDITY & ACCESS TO CAPITAL

\$61.7M in unrestricted cash on hand – 11/30/22
\$72.1M in unrestricted BTC (4,200 BTC) – 11/30/22
Equity capital access through ATM program ► \$198.7 million YTD through 9/30/22
Access to \$200M term loan and RLOC facilities collateralized by BTC ► \$80M drawn – 11/30/22

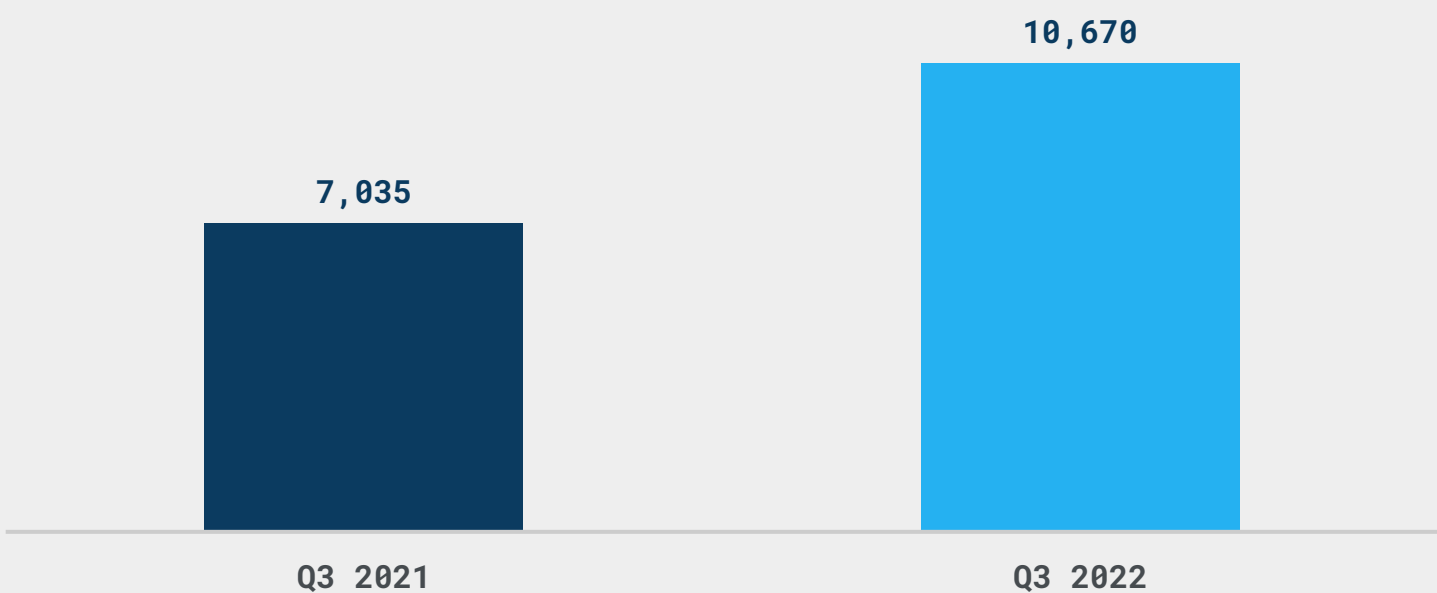
QUALITY RELATIONSHIPS

Access to top-tier mining hardware
Access to low energy costs
Strong relationships with hosting companies & sustainable power providers

YTD BTC PRODUCTION
(As of Q3 for 2021 and 2022)



BTC HELD



Asset Light Model: Optimized for Agility & Flexibility

LACK OF INFRASTRUCTURE INVESTMENT LEADS TO...



Co-locating at renewable energy sites

- Decreased dependency on fluctuating grid energy
- Benefits from selling excess power to back to the grid
- Behind the meter to avoid competing with consumers



Increasing Flexibility

- Ability to move servers to sites with better economics, tech, etc.
- No long-term ties to real estate & PPA agreements
- Geographic diversification, exploring international markets



Optimizing ROI on CAPEX

- Maximize investment in revenue generating assets
- Relatively liquid assets that can be relocated or resold
- Lean internal headcount

Note: See slide 32 for risk factors pertaining to an asset light model.

Asset Light Model: Key to Staying Ahead of the Technology Curve

Mining continues to evolve, which requires...

- Reinvesting in or renovating existing facilities ~ every 5 years

An Asset Light Approach...

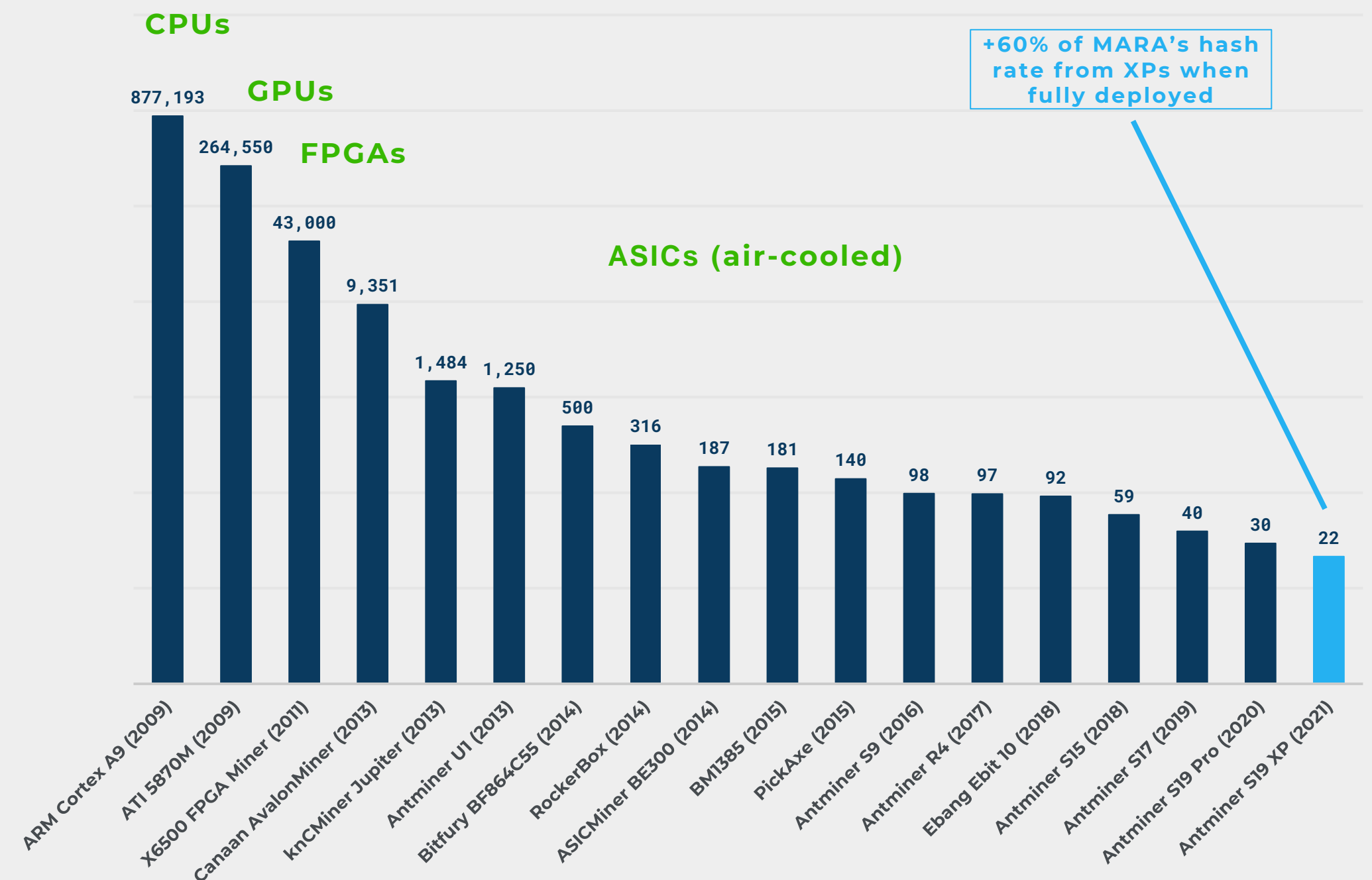
- Minimizes the need to deploy capital into fixed structures
- Frees up capital to invest in revenue generating assets
- Provides optionality to upgrade to latest and most efficient servers

Marathon in Practice...

- +60% of hash rate powered by S19 XPs – 21.5 J/TH & 27% more energy efficient than the prior gen – once fully deployed
- Efficiency of approximately 24.2 J/TH once fully deployed
- Positioned for immersion

INVESTING IN THE INDUSTRY'S MOST EFFICIENT EQUIPMENT

MINING HARDWARE (LOG SCALE, J/TH)¹⁰



Asset Light Model: Key to Efficiently Converting Electricity into Value

By deploying the most efficient servers...

- MARA can convert electricity into value more efficiently than the average Bitcoin miner

By efficiently converting electricity into value...

- MARA can increase its revenue / kWh → more optionality & improved survivability

Revenue / kWh

The amount of revenue generated per kilowatt hour of electricity consumed

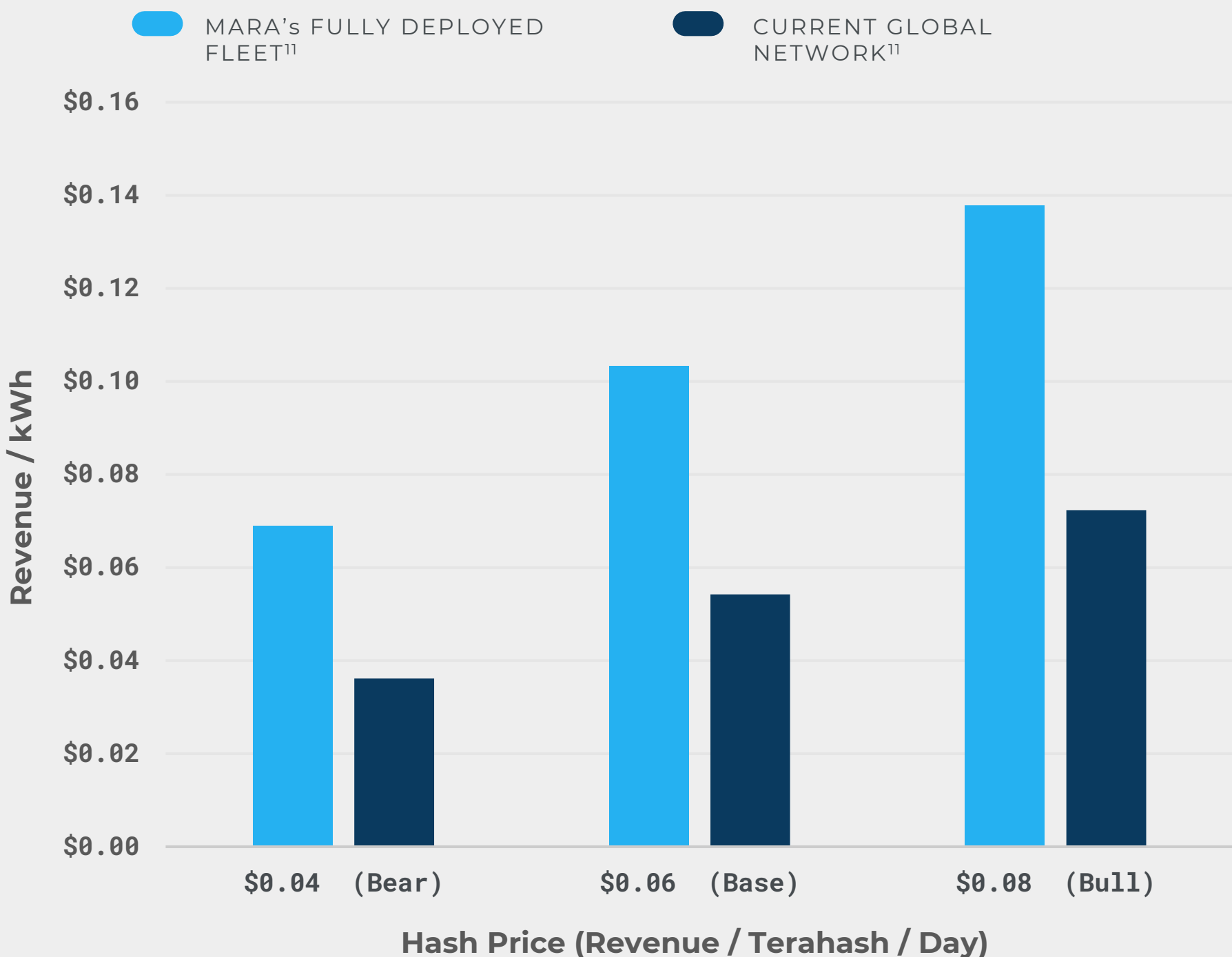
$$\text{\$REV/ kWh} = \frac{\text{Hash price}}{\text{Joules per terahash} / 24\text{hours} * 1000}$$

Hash Price

$$\text{Hash price} = \frac{\text{BTC Network's Revenue per Day}}{\text{BTC Network's Hash Rate (terahashes per second)}}$$

$$\text{Hash price} = \frac{(900 \text{ BTC per Day} + \text{Fees}) * (\text{BTC USD})}{\text{BTC Network's Hash Rate (terahashes per second)}}$$

\$REV / kWh by Fleet

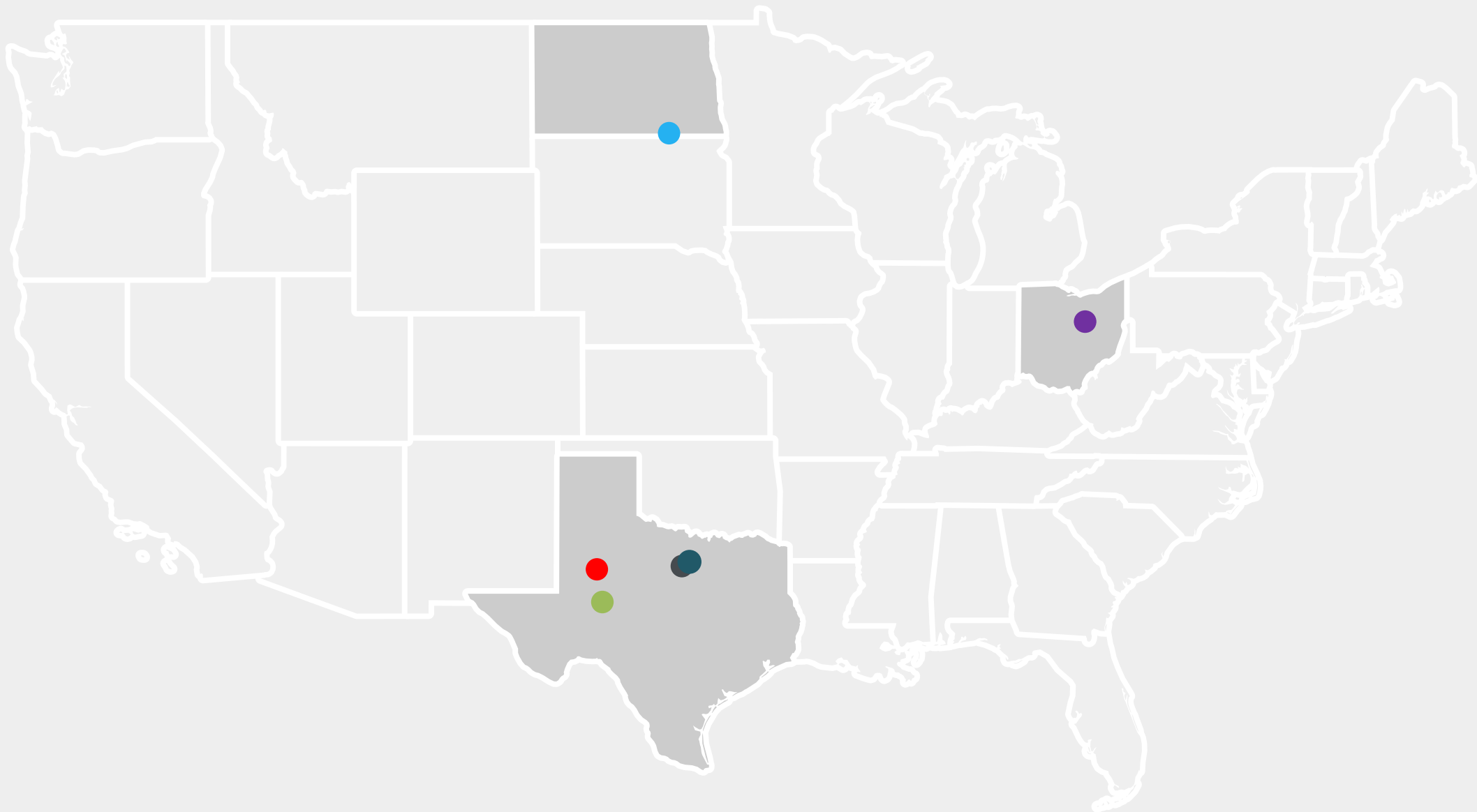


Distributed Mining Operations

Installing 23 EH/s by mid 2023 with multiple hosting providers across multiple geographies

Exited coal-powered facility in September 2022

On track to be 100% carbon neutral



Southern U.S.

MCCAMEY, TX | Wind + Grid

- ~7.0EH/s | ~200 MW
- ~ 63,500 active servers

GARDEN CITY, TX | Wind + Grid

- ~4.2EH/s | ~90 MW
- Under construction
- Server installations in progress
- Hosted by APLD

GRANBURY, TX | Grid

- ~3.2EH/s | ~80 MW
- ~2,800 active servers
- Under construction

PLANO, TX | Grid

- ~0.08EH/s | ~2 MW
- Under construction

Northern U.S.

ELLENDALE, ND | Grid

- ~8.0EH/s | ~180 MW
- Resides near a wind farm
- Under construction
- Hosted by APLD

COSHOCTON, OH | Nuclear + Grid

- ~0.33 EH/s | ~10 MW
- ~ 3,000 active servers

Exploring Int'l Markets



ESG – Environmental. Social. Governance.

DOING GOOD & DOING IT WELL



ENVIRONMENTAL

- On track to be 100% carbon neutral
- Transitioned away from coal-powered plant in Hardin, MT
- Leveraging sustainable power at the source
- Incentivizing & facilitating the transition to renewable energy



Solar



Wind



Biomass



Nuclear



SOCIAL

- Voluntarily curtailing to supply local communities & businesses with power in times of crisis
- Supporting & securing a global network that:
 1. Enhances financial inclusion
 2. Empowers greater economic freedom



GOVERNANCE

- Transparency & accountability throughout company & operations
- Informed & effective decision making by board of directors & governance structure
- Monitoring performance & maintaining compliance
- Insight into operations and bitcoin production in real time via MaraPool

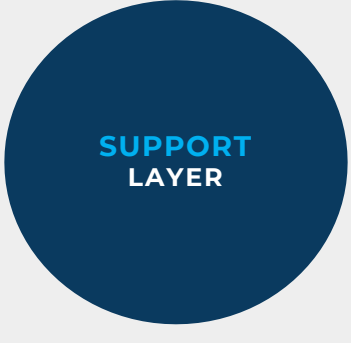
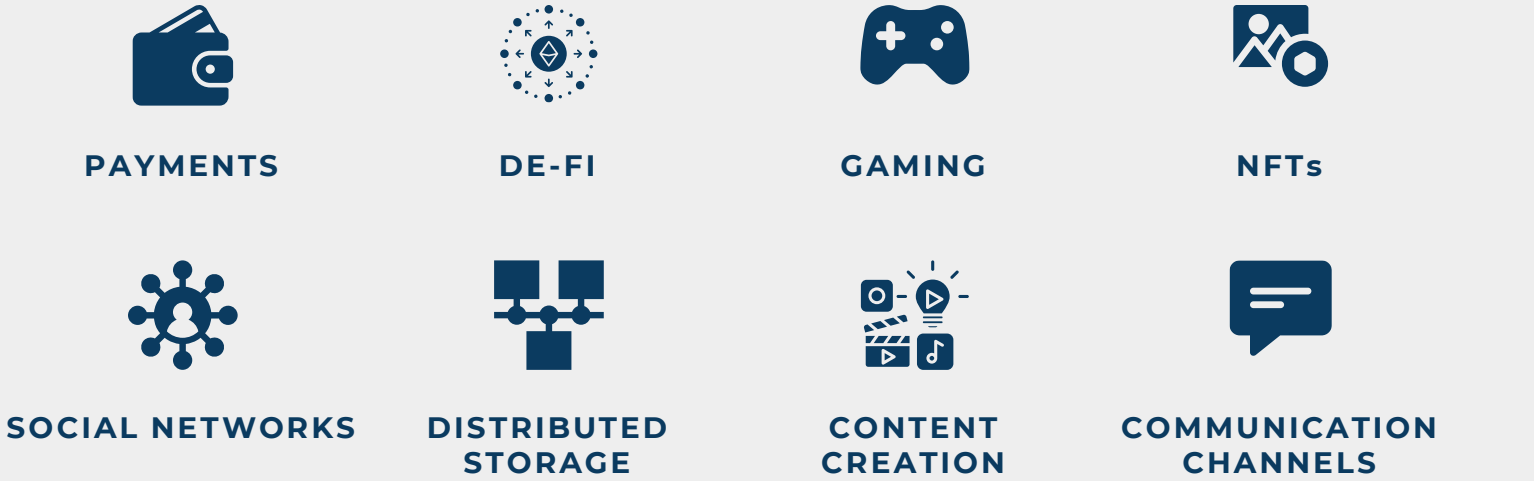
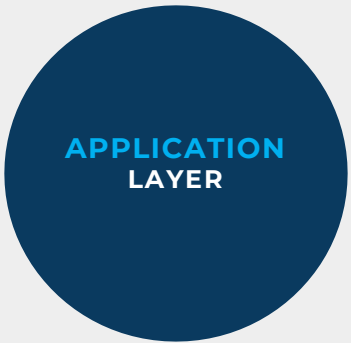
Innovating within the Technology Stack

MARA RESEARCH LAB

- Researching and testing new technologies (incl. immersion, hardware, firmware, miner software, etc.) to improve mining efficiency

MARA INCUBATOR

- Supporting the development of new technologies & businesses seeking to build, expand, & enrich the Bitcoin ecosystem



A digital illustration of a futuristic city at night. The scene is viewed from a low angle, looking up a wide, dark street that recedes into the distance. The street is flanked by tall, dark buildings. The facades of these buildings are covered in a dense pattern of glowing blue lights, some of which are arranged in horizontal lines, suggesting windows or decorative lighting. The perspective draws the eye towards a bright, white, V-shaped opening at the top of the frame, where the street seems to converge. The overall color palette is dominated by deep blues and blacks, with the bright blue lights providing a strong contrast.

In Summary...

Recent Company Highlights

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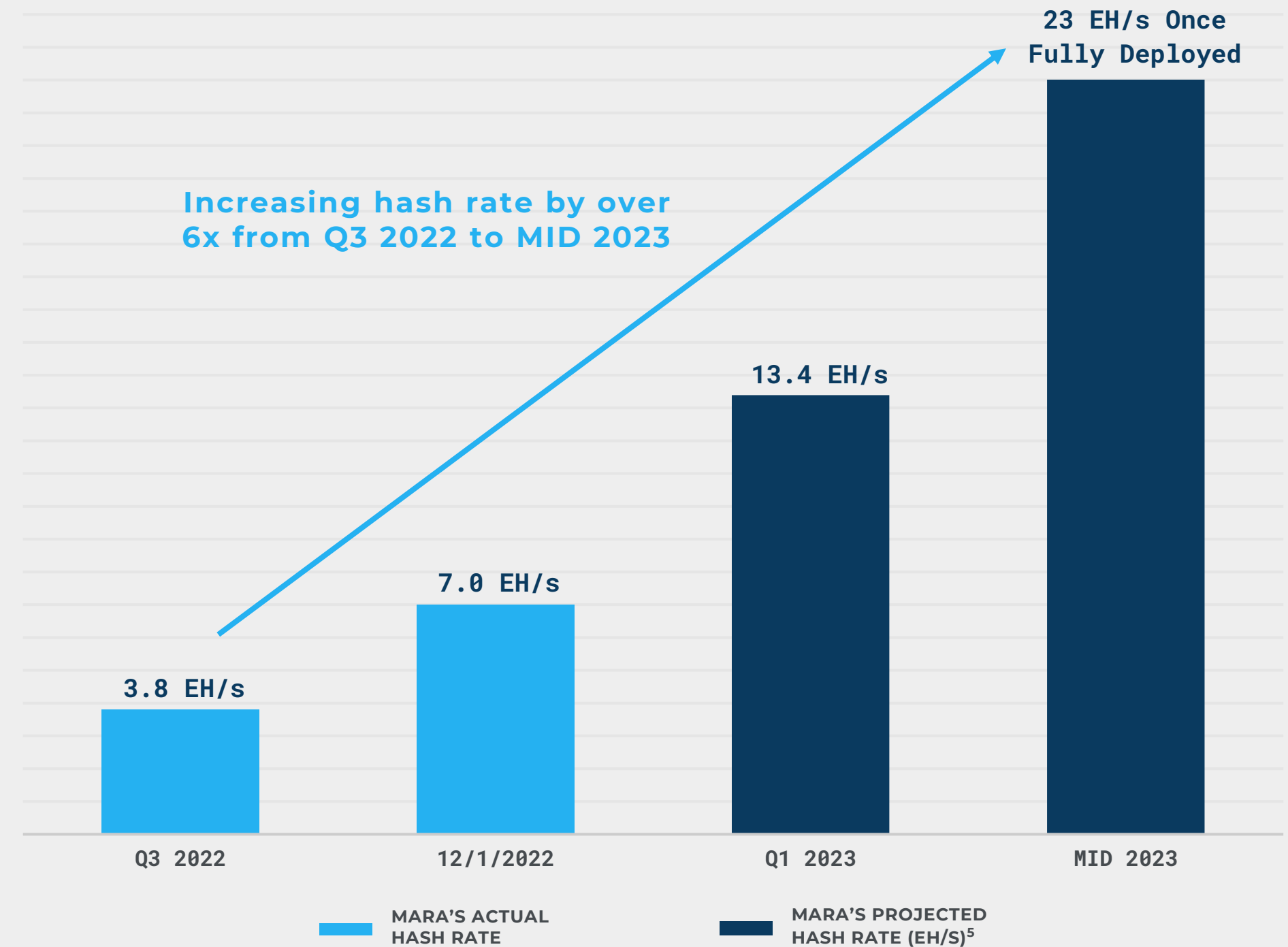
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Returning energy back to the grid in times of crisis

Operating with low costs of power + hosting



Strong relationships with multiple hosting companies and energy providers

PROJECTED HASH RATE GROWTH



A digital illustration of a futuristic city at night. The scene is viewed from a low angle, looking up a wide, dark path that leads towards a bright, glowing light source at the top center. The path is flanked by towering, dark structures covered in numerous small, glowing blue lights, creating a sense of depth and scale. The overall color palette is dominated by dark blues and blacks, with the bright blue lights providing a strong contrast.

Appendix

Income Statements

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2022</u>	<u>2021</u>	<u>2022</u>	<u>2021</u>
Revenues	\$ 12,690,452	\$ 51,707,483	\$ 89,329,986	\$ 90,182,155
Costs and expenses:				
Cost of revenues:				
Energy, hosting and other costs	(13,772,555)	(5,922,811)	(42,974,265)	(11,647,457)
Depreciation and amortization	(26,294,842)	(4,340,198)	(64,881,323)	(8,015,801)
	(40,067,397)	(10,263,009)	(107,855,588)	(19,663,258)
Operating expenses:				
General and administrative expenses	(12,352,008)	(99,235,984)	(39,187,098)	(159,411,404)
Legal reserve	(24,960,000)	-	(24,960,000)	-
Impairment of deposits due to vendor bankruptcy filing	(7,987,147)	-	(7,987,147)	-
Impairment of digital currencies	(5,903,891)	(6,731,890)	(153,045,376)	(18,472,750)
Impairment of patents	-	-	(919,363)	-
Realized and unrealized gains (losses) on digital currencies held in fund	-	42,086,907	(85,016,208)	59,410,028
Gain on sales of equipment, net	31,934,307	-	90,115,824	-
	(19,268,739)	(63,880,967)	(220,999,368)	(118,474,126)
Operating loss	(46,645,684)	(22,436,493)	(239,524,970)	(47,955,229)
Impairment of loan and investment due to vendor bankruptcy filing	(31,012,853)	-	(31,012,853)	-
Other non-operating income	238,159	261,273	632,132	254,024
Interest expense	(3,752,301)	(287)	(10,314,659)	(2,694)
Loss before income taxes	(81,172,679)	(22,175,507)	(280,220,350)	(47,703,899)
Income tax benefit	5,750,272	2,940	192,712	3,454
Net loss	\$ (75,422,407)	\$ (22,172,567)	\$ (280,027,638)	\$ (47,700,445)
Net loss per share, basic:	\$ (0.65)	\$ (0.22)	\$ (2.56)	\$ (0.49)
Net loss per share, diluted:	\$ (0.65)	\$ (0.22)	\$ (2.56)	\$ (0.49)
Weighted average shares outstanding, basic:	116,533,816	100,803,809	109,492,865	98,230,795
Weighted average shares outstanding, diluted:	116,533,816	100,803,809	109,492,865	98,230,795

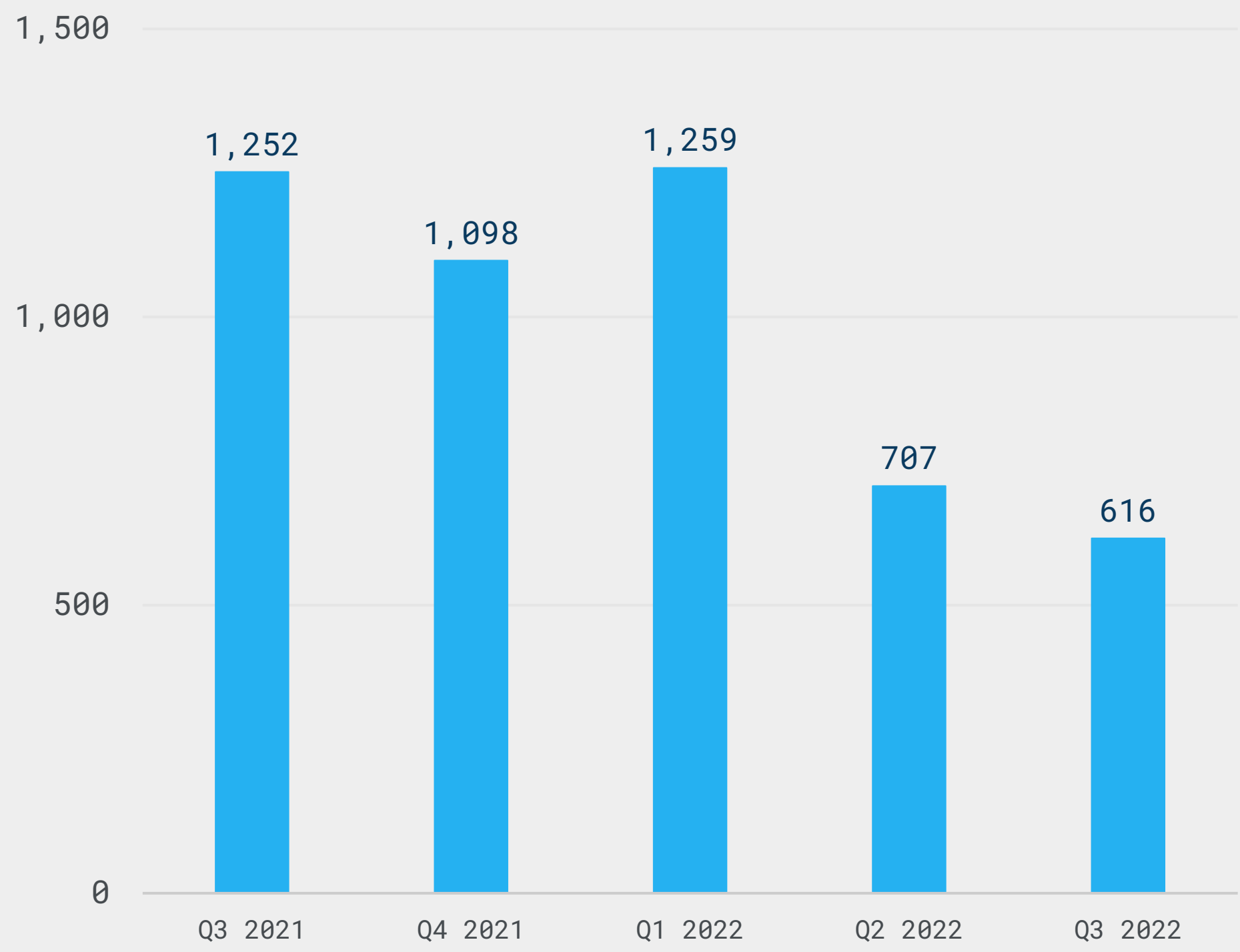
Supplemental information

Supplemental Information:	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2022</u>	<u>2021</u>	<u>2022</u>	<u>2021</u>
Total margin (revenues less total cost of revenues)	\$ (27,376,945)	\$ 41,444,474	\$ (18,525,602)	\$ 70,518,897
Total margin excluding depreciation and amortization	\$ (1,082,103)	\$ 45,784,672	\$ 46,355,721	\$ 78,534,698
Bitcoin ("BTC") production during the period, in BTC	616	1,252	2,582	2,099
Revenues per BTC produced	\$ 20,601	\$ 41,300	\$ 34,597	\$ 42,964
<u>Adjusted EBITDA (1)</u>				
Net loss	\$ (75,422,407)	\$ (22,172,567)	\$ (280,027,638)	\$ (47,700,445)
Exclude: Interest expense	3,752,301	287	10,314,659	2,694
Exclude: Income tax benefit	(5,750,272)	(2,940)	(192,712)	(3,454)
EBIT	(77,420,378)	(22,175,220)	(269,905,691)	(47,701,205)
Exclude: Depreciation and Amortization	26,294,842	4,340,198	64,881,323	8,015,801
EBITDA	(51,125,536)	(17,835,022)	(205,024,368)	(39,685,404)
Adjustments for non-cash and non-recurring items:				
Stock compensation expense, net of withholding tax	3,423,324	96,617,325	18,874,798	152,334,886
Impairment of assets due to vendor bankruptcy filing	39,000,000	-	39,000,000	-
Impairment of patents	-	-	919,363	-
Adjusted EBITDA	<u>\$ (8,702,212)</u>	<u>\$ 78,782,303</u>	<u>\$ (146,230,207)</u>	<u>\$ 112,649,482</u>
<u>Changes in carrying value of digital assets:</u>				
Realized and unrealized gains (losses) on digital currencies held in fund	\$ -	\$ 42,086,907	\$ (85,016,208)	\$ 59,410,028
Impairment of digital currencies	(5,903,891)	(6,731,890)	(153,045,376)	(18,472,750)
	<u>\$ (5,903,891)</u>	<u>\$ 35,355,017</u>	<u>\$ (238,061,584)</u>	<u>\$ 40,937,278</u>

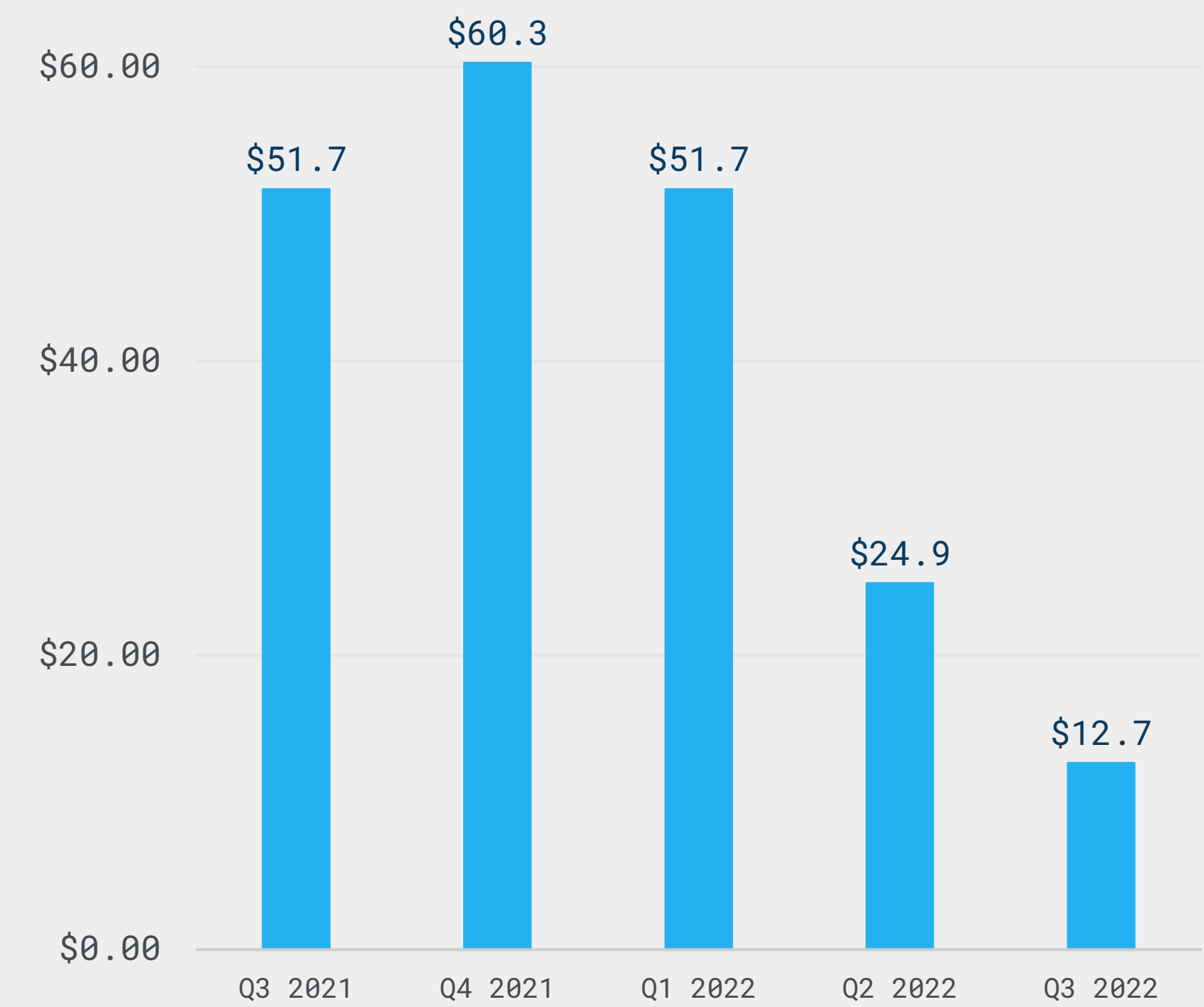
<u>BTC held at end of period:</u>	<u>As of September 30,</u>	
	<u>2022</u>	<u>2021</u>
Total BTC held	10,670	7,035
BTC utilized as collateral for borrowings	3,828	-
Market value of 1 BTC (in USD)	\$ 19,432	\$ 43,791
FMV of BTC held	\$ 207,339,440	\$ 308,069,685
Carrying value of all BTC held	\$ 197,161,440	\$ 282,696,868

Recent Trends

Quarterly BTC production



Revenue (in millions)



Non-GAAP Financial Measures

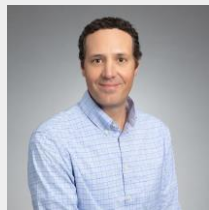
We provide investors with a reconciliation from net income to the non-GAAP measure known as Adjusted EBITDA as a component of this presentation. For each period in question, we define “Adjusted EBITDA” as (a) GAAP net income (or loss) plus (b) adjustments to add back the impacts of (1) depreciation and amortization, (2) interest expense, (3) income tax expense and (4) adjustments for non-cash and non-recurring items (which currently include (i) stock compensation expense, (ii) net of withholding taxes and (iii) impairments of patents (if any)).

Adjusted EBITDA is not a measurement of financial performance under GAAP and, as a result, this measure may not be comparable to similarly titled measures of other companies. Non-GAAP financial measures are subject to material limitations as they are not in accordance with, or a substitute for, measurements prepared in accordance with GAAP. Adjusted EBITDA is not meant to be considered in isolation and should be read only in conjunction with our Quarterly Reports on Form 10-Q and our Annual Reports on Form 10-K as filed with the Securities and Exchange Commission. Management uses both Adjusted EBITDA and the supplemental information provided herein as a means of understanding, managing and evaluating business performance and to help inform operating decision making. We rely primarily on our Consolidated Condensed Financial Statements to understand, manage, and evaluate our financial performance and use the non-GAAP financial measures only supplementally .

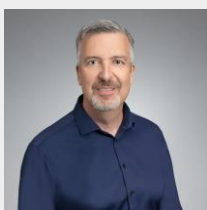
Leadership Team



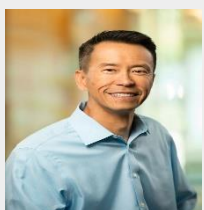
Fred Thiel
CHAIRMAN & CEO



Jim Crawford
CHIEF OPERATING OFFICER



Hugh Gallagher
CHIEF FINANCIAL OFFICER



John Lee
CHIEF ACCOUNTING OFFICER



Ashu Swami
CHIEF TECHNOLOGY OFFICER



Jolie Kahn
LEGAL COUNSEL



Raymond Walintukan
VP OF MINING OPERATIONS



Charlie Schumacher
VP OF CORPORATE COMMUNICATIONS



Adam Swick
VP OF STRATEGY

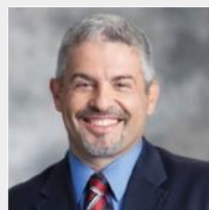


Will Beam
VP OF ACCOUNTING

Board of Directors



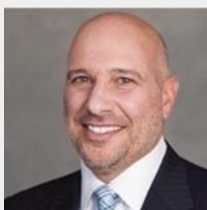
Fred Thiel
CHAIRMAN



Georges Antoun
INDEPENDENT DIRECTOR



Said Ouissal
INDEPENDENT DIRECTOR



Kevin DeNuccio
DIRECTOR



Jay Leupp
INDEPENDENT DIRECTOR

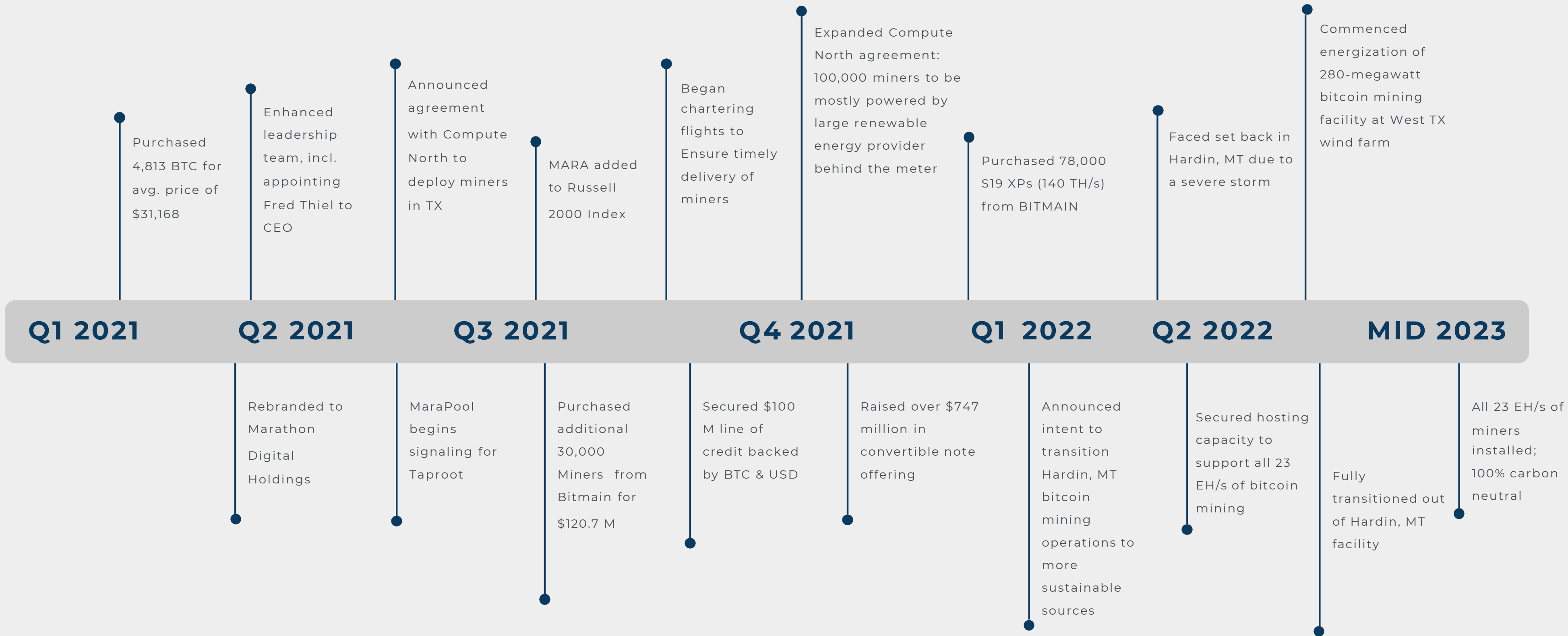


Sarita James
INDEPENDENT DIRECTOR



Doug Mellinger
INDEPENDENT DIRECTOR

“Timeline of Expansion & Growth”



MINING - The Engine that Fuels the Bitcoin Ecosystem

MINING - A system that adds transactions & provides security to the Bitcoin blockchain; How new bitcoin enter the market

A MINER - a computer designed to solve a mathematical algorithm (i.e., the Bitcoin code)

How it Works



A Bitcoin transaction occurs and is broadcast to the network



A miner pools together “pending” Bitcoin transactions in a “block”

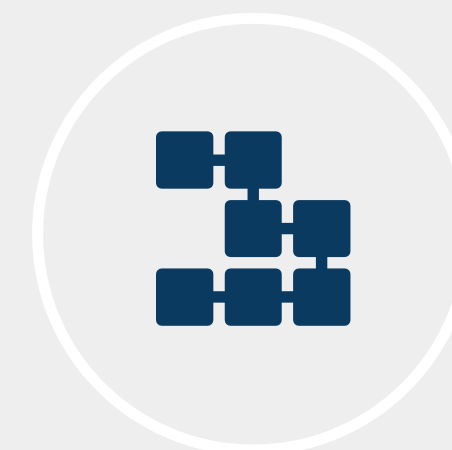


Once a block is formed, miners compete to “hash” their block (i.e., solve a cryptographic puzzle)

Difficult to solve, yet simple to verify (Sudoku)



Once solved, the network checks the miner’s work (i.e., verifies their “Proof of Work” adheres to rules of the Bitcoin protocol)



The new block of verified transactions is attached to a chain of prior blocks, hence “blockchain” (i.e., the public Bitcoin ledger) & the process repeats



For solving the puzzle, miners are rewarded with Bitcoin

Currently, 6.25 BTC per block / Blocks are solved on avg., every 10 min.

Only 21 million BTC can be mined, providing scarcity, currently 900BTC are mined per day

The Path to Profitable Mining



POWER (HASH RATE)

More powerful miners → increased power (hash rate)
Increased power → higher probability of earning BTC



COST OF PRODUCTION

Lower costs → higher profits in bull markets & survivability in bear markets

Annual Mining Profitability

$$= \left[\left(\frac{\text{Marathon's Hash Rate}}{\text{Network Hash Rate}} \right) \times \left(\text{Price of BTC} \right) \times \left(\frac{6.25}{\text{Block Reward}} \right) \times \left(\frac{52,560}{\text{Blocks/Year}} \right) \right] - \left[\left(\text{Price of Miners} \right) + \left(\frac{\text{Costs of Electricity \& Hosting}}{\text{}} \right) + \left(\frac{\text{Marathon's Corporate Expenses*}}{\text{}} \right) \right]$$

Marathon Controls

- Its Hash Rate
- Cost of Electricity & Hosting
- Corporate Expenses
- Capital and liquidity

Marathon Doesn't Control

- Network Hash Rate
- Price of BTC
- Block Reward & # of Blocks / Year
- Price of Miners

* Rent, employees, public company expense, etc.

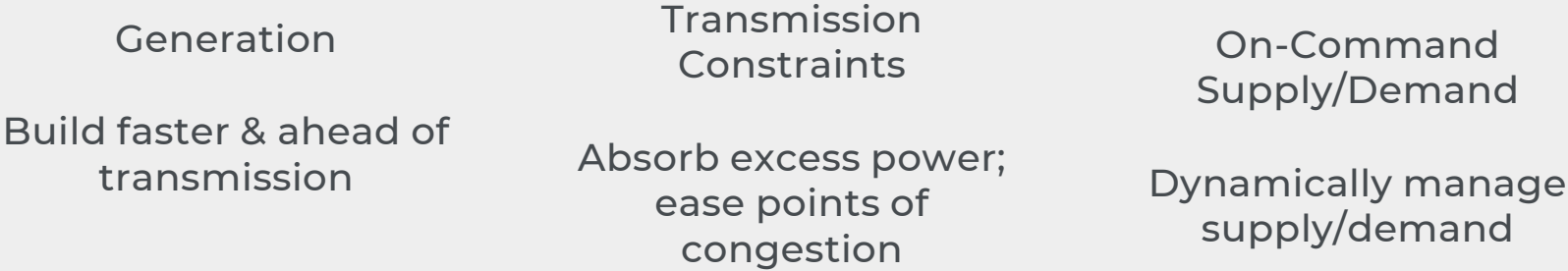
Power with a Purpose - Expanding Renewables, Increasing ROI, & Mitigating Blackouts

Accelerating the “Energy Transition”

Bitcoin mining is fundamentally different from traditional data centers:

- 1. Distributed / Portable demand (loads) can be located nearly anywhere
- 2. Load can be interrupted (curtailed) by utilities when needed

Solves for 3 major issues:

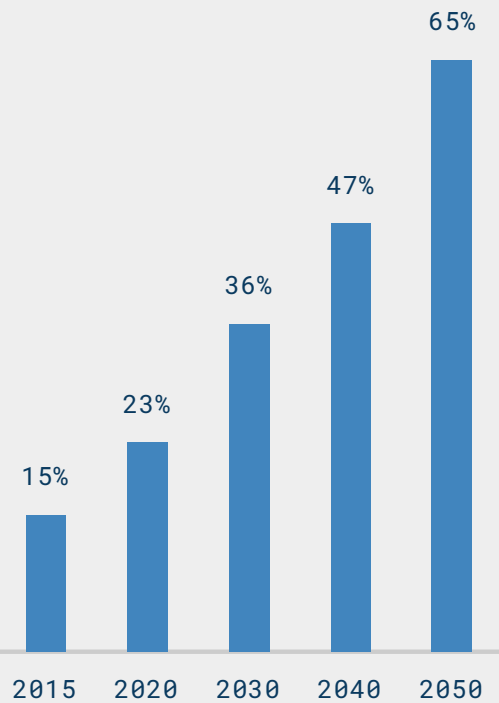


Marathon at Full Deployment in Mid 2023

- Working directly with some of the largest renewable energy providers in North America
- Refining local waste into global value by consuming excess renewable power
- Mitigating losses from transmission and maximizing renewable power mix
- Voluntary curtailment to provide flexible base load to the grid and mitigate consumer blackouts
- Leveraging sustainable energy (wind, solar, hydro, nuclear, etc.)
- On track to be 100% carbon neutral

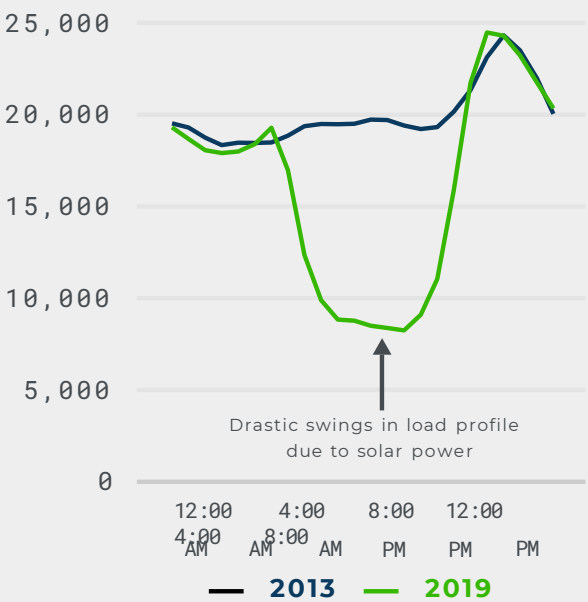
Renewables Are Expected to Grow Further...

US Renewable Energy Penetration (%)¹²



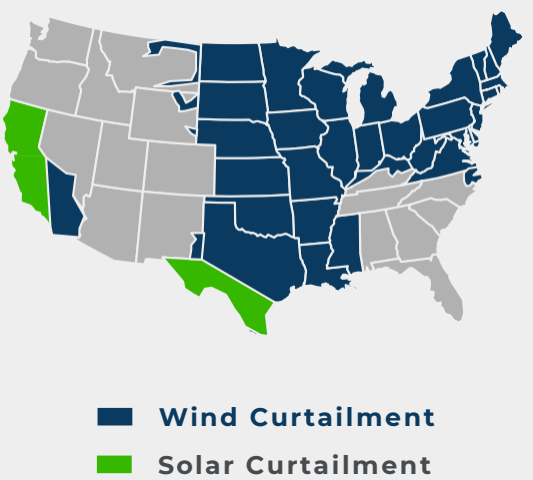
...Leading to Increased Intermittency...

Representative Net Load Profile¹³



...And Higher Curtailment

Growth in Curtailment per ISO in 2020¹⁴

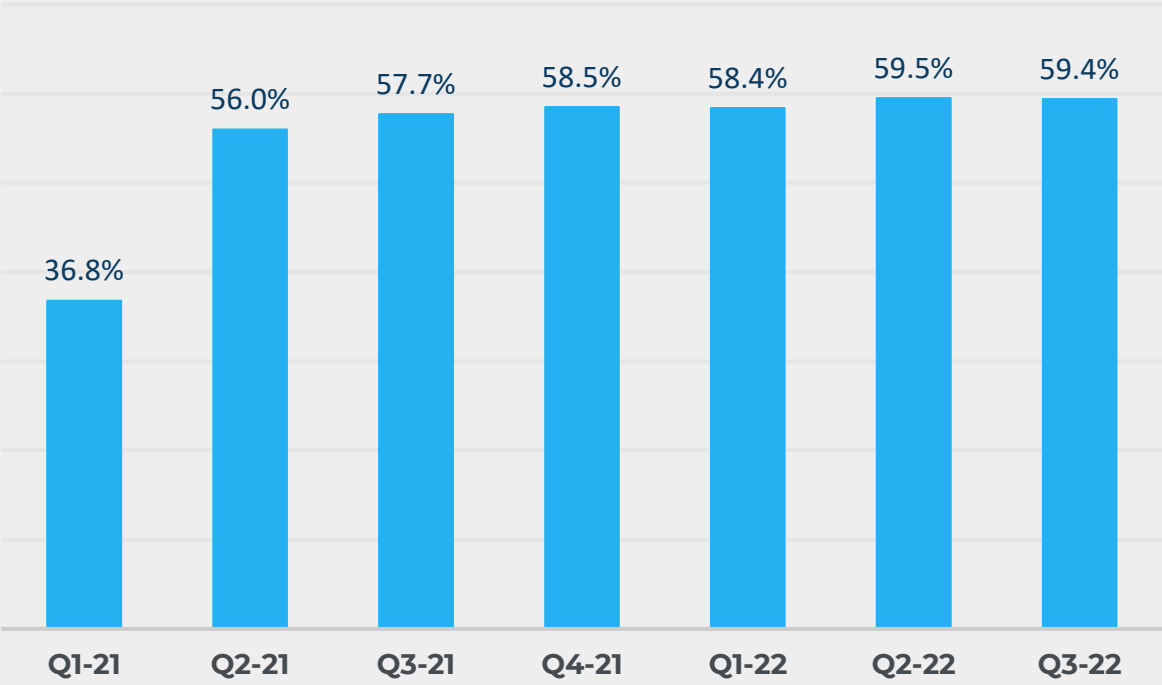


Bitcoin's Energy Usage Is Negligible, but Its Sustainability Is Industry Leading

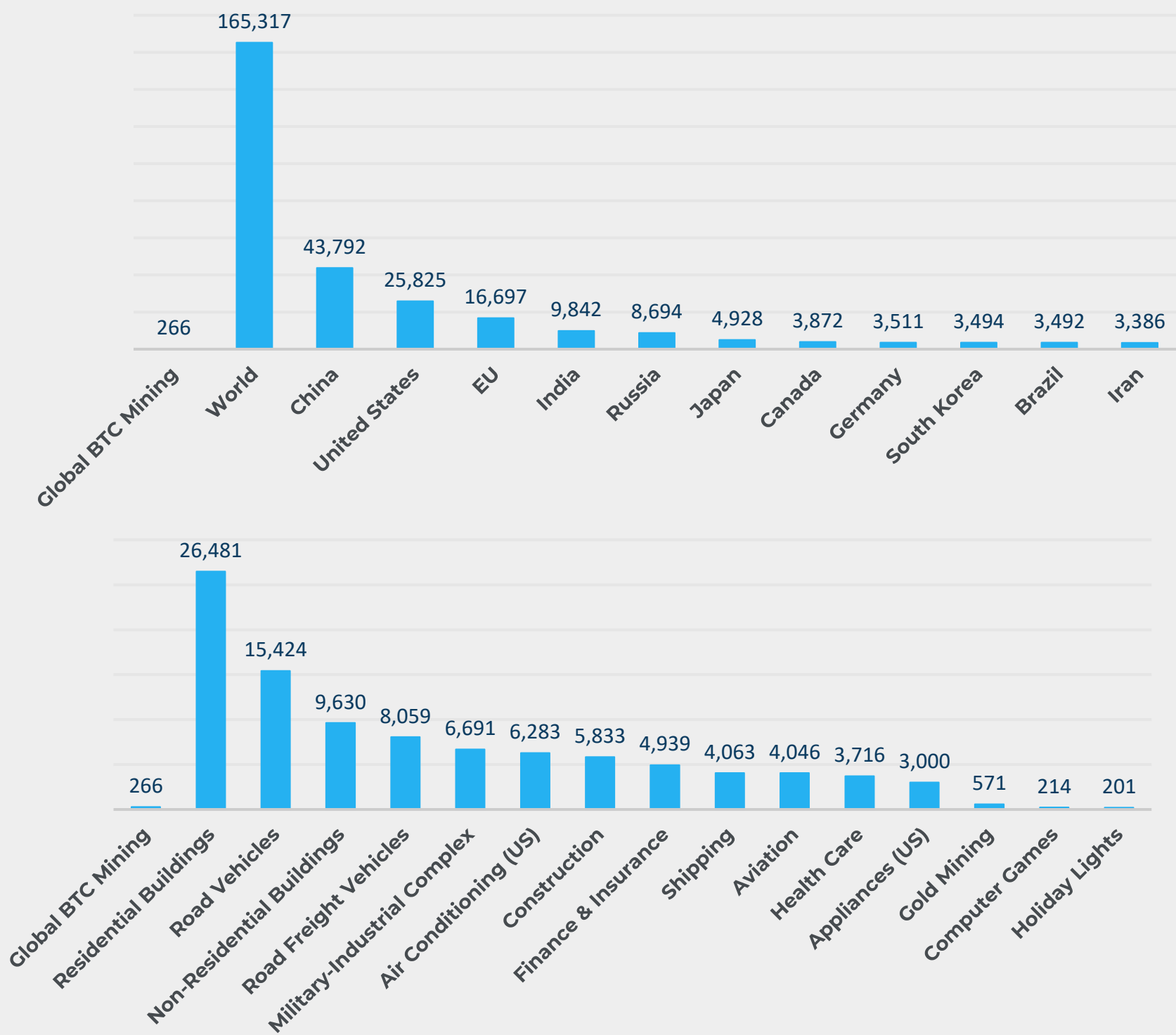
The Bitcoin Mining Industry in Q3 2022¹⁵

- Uses an inconsequential amount of global energy (16 bps) & generates negligible carbon emissions (10 bps)
- ~60% predominantly using sustainable power (up from 58% in 2021)
- Bitcoin mining hash rate is up 73% YoY, & energy usage is up only 41% YoY, due to an increase in efficiency of 23%

BTC Mining Sustainable Electricity Mix (%)¹⁵



Annual Electricity Consumption (TWH)¹⁵



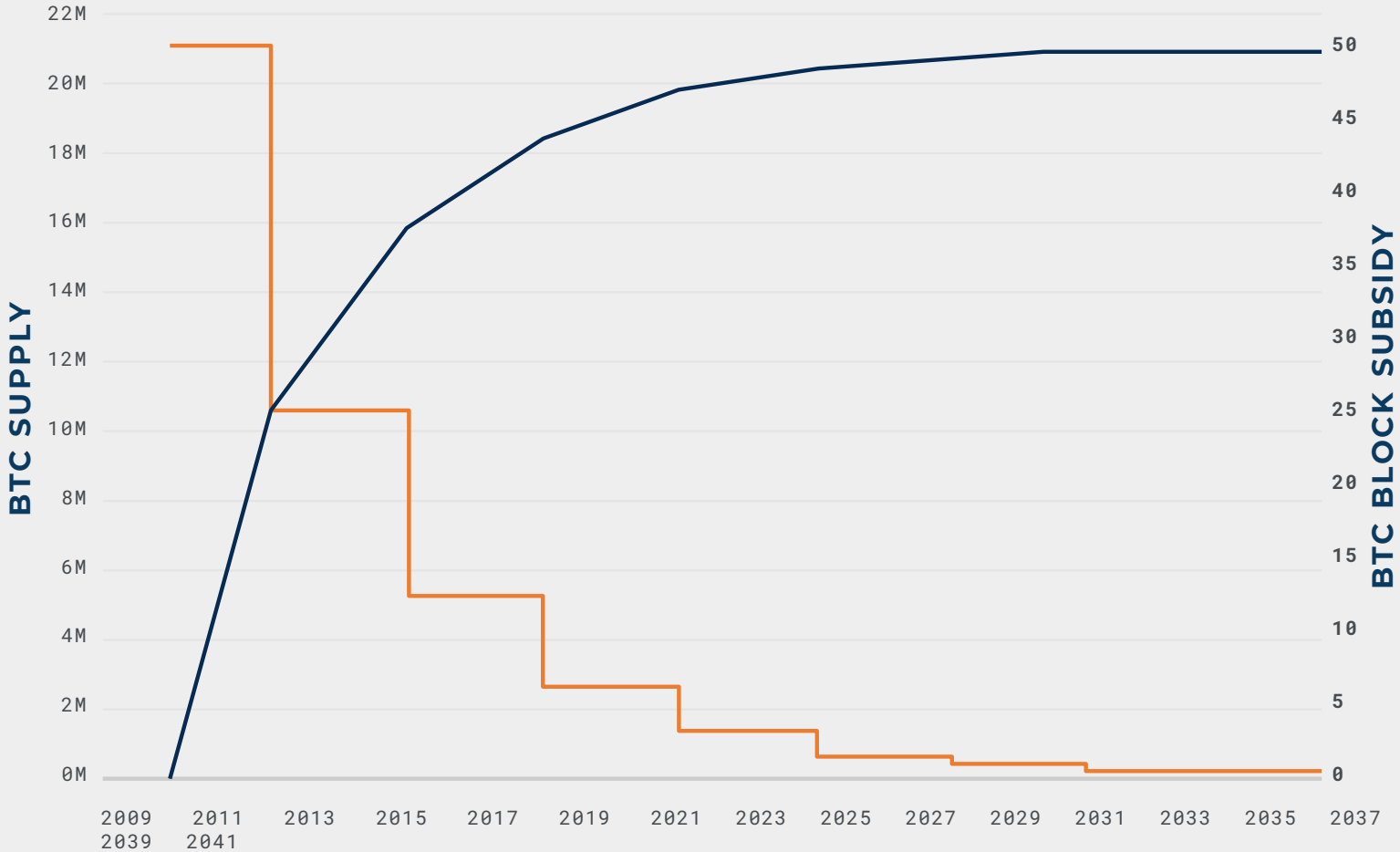
“Halving Events”

BITCOIN’S FINITE SUPPLY ALGORITHM¹⁶

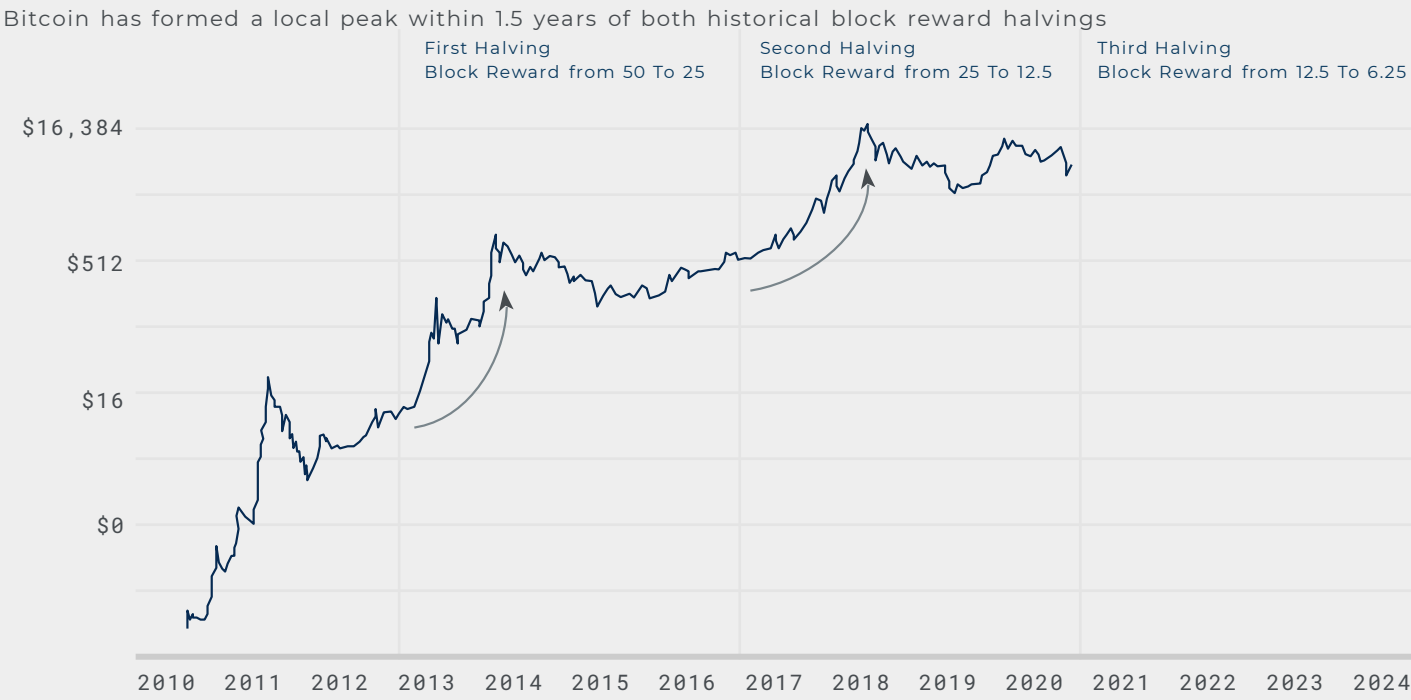
Block rewards reduced by half every 210,000 blocks (c. 4 years) until all 21,000,000 BTC mined in c. 2140

DATE	BTC / BLOCK	% OF BTC SUPPLY MINED AT END OF PERIOD	PRICE OF DAY OF HALVING
JAN 3, 2009	50	50%	N / A
NOV 28, 2012	25	75%	\$12.35
JUL 9, 2016	12.5	87.5%	\$650.53
MAY 11, 2020	6.25	93.75%	\$8,821.42
EST. FEB - MAY 2024	3.125	96.875%	?
EST. 2028	1.5625	98.4375%	?
EST. 2140	0	100%	?

BITCOIN SUPPLY & BLOCK SUBSIDY BY YEAR¹⁷



BITCOIN PRICE USD¹⁸



Bitcoin & Traditional Assets ROI

AS OF DECEMBER 2, 2022¹⁹

	BITCOIN	GOLD	S&P
1 YEAR	-69%	+1%	-11%
2 YEAR	-11%	-1%	+11%
3 YEAR	+134%	+22%	+31%
4 YEAR	+327%	+45%	+48%
5 YEAR	+49%	+41%	+53%
6 YEAR	+2,124%	+53%	+84%
7 YEAR	+4,418%	+67%	+96%
8 YEAR	+4,450%	+50%	+96%
9 YEAR	+1,442%	+45%	+126%
10 YEAR	+129,936%	+6%	+188%

A futuristic cityscape at night, viewed from a low angle looking up a wide, dark path. The path is flanked by towering, dark structures covered in numerous glowing blue lights, creating a sense of depth and scale. The lights are arranged in vertical lines and clusters, suggesting windows or data points. At the end of the path, a bright, rectangular light source is visible, casting a glow that illuminates the path and the surrounding structures. The overall atmosphere is mysterious and high-tech.

Assumptions, Glossary, & Footnotes

Marathon's BTC Production and Revenue Projections - Assumptions

OVERALL ASSUMPTIONS

- Bitcoin price & network's hash rate estimates are based on internal projections. These models are not a guarantee of future results. Annual figures are calculated as monthly figures x 12. Daily figures are calculated as monthly figures x (12/365).
- Efficiency is based on weighted average hash rate of mining fleet.
- Assumed hash prices of \$0.04, \$0.06, & \$0.08 for bear, base, and bull scenarios, respectively.
- Revenue per kWh = hash price / efficiency / 24 hours * 1000
- All figures are for illustrative purposes only and should not be considered as projections for FY 2023 as they do not account for changes in the price of bitcoin or the total network's hash rate.

Asset Light Model - Disclosure

Risk factors include, but are not limited to,

- Dependence on vendors or partners,
- High operating costs,
- Less visibility and oversight of operations,
- And others.

Glossary of Relevant Terminology

BITCOIN (BTC) – a type of digital currency in which a record of transactions is maintained and new units of currency are generated by the computational solution of mathematical problems, and which operates independently of a central bank; a unit of bitcoin.

BLOCKCHAIN – a system in which a record of transactions made in bitcoin or another cryptocurrency are maintained across several computers that are linked in a peer-to-peer network.

BLOCK – a file that contains a “permanent” record of transactions

MINING (BTC) – the processing of transactions in the digital currency system, in which the records of current Bitcoin transactions, known as a blocks, are added to the record of past transactions, known as the block chain

HASH RATE – the Measure of a Miners Performance – # of calculations a miner can perform in 1 second as it works to solve the BTC code

BLOCK REWARD – the amount of BTC “awarded/earned” for successfully mining / verifying a block

HASH PRICE – the daily revenue (in USD) generated by miners on a per terahash basis (\$/TH/s/day)

REV / KWH – the amount of revenue (in USD) generated per kilowatt hour of electricity consumed

**AVERAGE # OF BTC
MINED EACH DAY =**

$$\begin{aligned} & \text{(Block Reward)} \\ & \times \\ & \text{(6X / Hour)} \\ & \times \\ & \text{(24HRS / Day)} \end{aligned}$$

AS OF MAY 11, 2020:

$$\begin{aligned} & \text{(6.25 BTC / Block)} \\ & \times \\ & \text{(6X / Hour)} \\ & \times \\ & \text{(24HRS / Day)} \\ & = \end{aligned}$$

**900 BTC PER DAY
ON AVERAGE**

Notes, Sources, & References

1. “Marathon Digital Holdings, Inc. (MARA) Stock Price, News, Quote & History.” Yahoo! Finance. Accessed December 19, 2022. <https://finance.yahoo.com/quote/MARA/>.
2. “Marathon Digital Holdings Announces Bitcoin Production and Mining Operation Updates for November 2022.” Marathon Digital Holdings, November 2, 2022. <https://ir.marathondh.com/news-events/press-releases/detail/1298/marathon-digital-holdings-announces-bitcoin-production-and>
3. “Marathon Digital Holdings Announces Bitcoin Production and Mining Operation Updates for September 2022.” Marathon Digital Holdings, October 6, 2022. <https://ir.marathondh.com/news-events/press-releases/detail/1294/marathon-digital-holdings-announces-bitcoin-production-and>.
4. The projected hash rate is only an estimate based on installation and energization timelines Marathon receives from its hosting providers and does represent a guarantee of future results.
5. Hash rate of 23 EH/s is estimated based on current machine contracts.
6. Willy Woo (@woonomic). “In terms of adoption, Bitcoin has roughly the same users as the Internet had in 1997.” Twitter, February 1, 2021. www.twitter.com/woonomic/status/1356310219215699968.
7. BTC Network’s number of users is estimated based on Crypto.com’s “Crypto Market Sizing Report 2021 and 2022 Forecast” and Willy Woo’s “Adoption Curves”. Internet number of users provided by World Internet Stats.
8. “Visa Inc. - SEC Filings.” Visa Inc. Accessed September 11, 2022. <https://investor.visa.com/SEC-Filings/>, “Bear Markets in Perspective.” Grayscale, July 19, 2022. <https://grayscale.com/wp-content/uploads/2022/07/Bear-Markets-in-Perspective-FINAL-Designed.pdf>.
9. Total transfer volume by size (entity-adjusted) provided by Glassnode.
10. “Global Bitcoin Mining Data Review Q2 2022.” Bitcoin Mining Council, July 19, 2022. <https://bitcoinminingcouncil.com/>.
11. Efficiency metric (J/TH) used for each cohort: 1) MARA fully deployed fleet (Mid 2023) - 24.2 J/TH; 2) Current global network – 46.1 J/TH (BMC Q3’ 22 Presentation ([Link](#)))
12. S&P Global Market Intelligence. Accessed September 8, 2022. <https://www.spglobal.com/marketintelligence/en/>.
13. “Fast Facts.” California ISO . Accessed September 8, 2022. https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf.
14. BTUAnalytics. Accessed September 8, 2022. <https://btuanalytics.com/>.
15. “Global Bitcoin Mining Data Review Q3 2022.” Bitcoin Mining Council, October 18, 2022. <https://bitcoinminingcouncil.com/>.
16. “Bitcoin Halving Dates History & Future Dates.” CryptoAnswers, October 25, 2021. <https://cryptoanswers.com/faq/bitcoin-halving-dates-history/>.
17. Hertig, Alyssa. “Bitcoin Halving, Explained.” CoinDesk, October 6, 2021. <https://www.coindesk.com/learn/2020/03/24/bitcoin-halving-explained/>.
18. Conway, Luke. “Bitcoin Halving: What You Need to Know.” Investopedia, August 15, 2022. <https://www.investopedia.com/bitcoin-halving-4843769>.
19. “Bitcoin & Traditional RIO (vs USD).” The Case for Bitcoin. Accessed December 2, 2022. <https://casebitcoin.com/>.



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D I G I T A L H O L D I N G S

NASDAQ: **MARA**

DECEMBER **2022**