

Marathon Digital Holdings, Inc. (MARA) Case Study

MARA was a holding in **The Valkyrie Bitcoin Miners ETF** (**Nasdaq:WGMI**) as of 2/7/2022.

WGMI is an actively managed ETF available through Nasdaq that invests in public companies in the bitcoin mining industry. Companies are screened based on their usage of renewable energy.

SHARE PRICE	27.92*
MKT CAP	2.88 billion*
BTC HOLDINGS	8,133
BTC HOLDINGS VALUE	339,967,533
BTC % MKT CAP	11.8%
LOCATION	LAS VEGAS, NV
CEO	FREDERICK G. THIEL
FOUNDED	2010
IPO DATE	MAY 2012
URL	http://www.marathondh.com/

*data as of 3/18/22

Business Model

Marathon started as a patent holding firm and pivoted their business model to bitcoin mining. They started adding significant capacity to their bitcoin mining strategy in 2020, when they purchased over 100,000 mining rigs and relocated to a facility designed to reduce the cost of mining. In 2021, Marathon was renamed Marathon Digital Holdings, and started designing a carbon-neutral mining facility.¹

Companies deploying bitcoin mining strategies can choose to hold or sell their bitcoin block rewards. Marathon recently held over 8,100 BTC with a value exceeding \$375 million. Over 15% of the market capitalization of Marathon is the value of BTC held on their balance sheet.²

Marathon Digital Holdings notes that the profitability of bitcoin miners is based on factors they can control, such as the price of electricity, their hash rate, and corporate expenses. Factors that are not under the control of an individual mining firm are the price of bitcoin, the cost and availability of mining rigs, and the network hash rate.³

As a corporate strategy, bitcoin miners seek to locate their mining operations in areas with the lowest possible cost of electricity. Marathon's price of electricity at Hardin, Montana, is 2.8 cents per kilowatt hour (kWh),⁴ which compares favorably to the average US industrial electricity price of nearly 7.5 cents per kWh.⁵

1 <https://marathondh.com/timeline/>

2 <https://ir.marathondh.com/news-events/press-releases/detail/1273/marathon-digital-holdings-announces-bitcoin-production-and>

3 <https://marathondh.com/mining/>

3 The network hash rate is the combined computing power deployed by all global bitcoin miners.

4 <https://marathondh.com/our-facilities/>

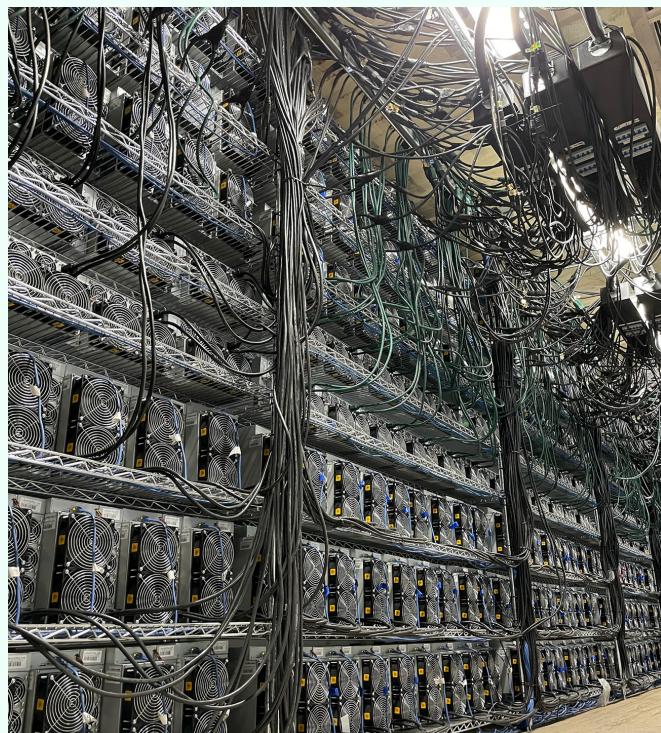
5 https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a

Mining Operations / Hash Rate

The global hash rate of bitcoin miners is over 180 EH/s.⁶ Marathon's hash rate from 31,000 currently installed application-specific integrated circuit (ASIC) mining rigs produces approximately 3.2 EH/s which earned over 2,700 BTC in mining rewards in the first 11 months of 2021. With thousands of new mining rigs on order and arriving on a regular basis, Marathon hopes to reach 13.3 EH/s in 2022 deploying over 130,000 miners, which would comprise over 7% of global mining power. If successful at securing and installing those machines by Q2 2022, Marathon would be the world's largest miner, hoping to mine nearly 22,000 BTC in 2022, assuming global hash rates of 160 EH/s. If other mining firms successfully add hashing power to the Bitcoin network or Marathon is not able to install the anticipated number of miners, Marathon's share of global block rewards is likely to fall below the 7% target.

Sustainability

Marathon's Hardin, Montana, data center is located at Beowulf's coal-fired electricity plant. Most of the new mining rigs delivered in 2022 will be installed at Compute North, which operates wind and solar farms in Texas and elsewhere in North America. Once the new mining rigs are fully installed, Marathon's average electricity price is anticipated to be 4.2 cents per kWh and 70% generated by carbon neutral energy sources.⁷



⁶ The global hash rate of bitcoin miners is over 180 exahashes per second (EH/s) An exahash is one quintillion hash calculations

⁷ <https://www.marketscreener.com/quote/stock/MARATHON-DIGITAL-HOLDINGS-56976419/news/Marathon-Digital-Compute-North-to-Host-Over-100-000-of-Marathon-s-Bitcoin-Miners-at-Predominantly-37228646/>



Disclosures

The Valkyrie Bitcoin Miners ETF is an actively managed ETF. The Fund seeks to provide investors with capital appreciation. There can be no assurance that the Fund will achieve its investment objective.

This document does not constitute a recommendation of any investment strategy or product for a particular investor. Investors should consult a financial advisor/financial consultant before making any investment decisions.

Investing involves risks. The loss of principal is possible. The Fund investment objectives, risks, charges and expenses should be considered before investing. The fund may not be suitable for all investors. The prospectus contains this and other important information, and it may be obtained at <https://valkyrie-funds.com/>. Read it carefully before investing

Shares of ETFs are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. Any applicable brokerage fees and commissions will reduce returns.

WGMI is indirectly exposed to the risks of investing in bitcoin through its investments in the portfolio companies. The market for bitcoin futures may be less developed, less liquid and more volatile than more established futures markets.

Bitcoin and bitcoin futures are a relatively new asset class. They are subject to unique and substantial risks, and historically, have been subject to significant price volatility. The value of an investment in the Fund could decline significantly and without warning, including to zero. You should be prepared to lose your entire investment.

The Shares will change in value, and you could lose money by investing in the Fund. The Fund may not achieve its investment objective.

The Fund is distributed by ALPS Distributors, Inc. Valkyrie Investments and ALPS Distributors, Inc. are not affiliates.

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This is a new ETF with limited operating history.

6 <https://www.marketscreener.com/quote/stock/MARATHON-DIGITAL-HOLDINGS-56976419/news/Marathon-Digital-Compute-North-to-Host-Over-100-000-of-Marathon-s-Bitcoin-Miners-at-Predominantly-37228646/>

