Cipher Mining

2024

FORM 10-K

CORPORATE & STOCKHOLDER INFORMATION

CORPORATE HEADQUARTERS

1 Vanderbilt Avenue, Floor 54
New York, NY, 10017

STOCK TRANSFER AGENT & REGISTRAR

Stockholder correspondence should be mailed to:

Continental Stock Transfer & Trust
1 State Street, 30th Floor
New York, NY 10004-1561

Email: cstmail@continentalstock.com

Telephone: 1 (800) 509-5586

Website: www.continentalstock.com

STOCK LISTING

Cipher Mining's common stock and public warrants are listed on the Nasdaq Stock Exchange under the ticker symbols CIFR and CIFRW, respectively

FINANCIAL INFORMATION

Cipher Mining's Annual Report, Form 10-K, Proxy Statement and other SEC Filings are available at www.ciphermining.com

ANNUAL MEETING OF STOCKHOLDERS

Tuesday, June 3, 2025
8:00 a.m., Eastern Time via live webcast

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

CBIZ CPAs P.C.

INVESTOR RELATIONS

Courtney Knight
investors@ciphermining.com

PR INQUIRIES / MEDIA CONTACT

Dukas Linden Public Relations
CipherMining@DLPR.com

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Fiscal Year Ended: December 31, 2024

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from __________ to __________.
Commission File Number: 001-39625

Cipher Mining Inc.

(Exact name of registrant as specified in its charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**85-1614529** **(I.R.S. Employer Identification No.)**
1 Vanderbilt Avenue, Floor 54 **New York, New York** **(Address of principal executive offices)**	**10017** **(Zip Code)**

Registrant's telephone number, including area code **(332) 262-2300**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	**CIFR**	**The Nasdaq Stock Market LLC**
Warrants, each whole warrant exercisable for one share of Common Stock at an exercise price of $11.50 per whole share	**CIFRW**	**The Nasdaq Stock Market LLC**

Securities registered pursuant to Section 12(g) of the Act: None
(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by a check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the common stock held by nonaffiliates of the registrant, based on the closing price of registrant's common stock as quoted on the Nasdaq Global Select Market on June 28, 2024 (the last business day of the registrant's most recently completed second fiscal quarter), was approximately $874.7 million. Shares of common stock beneficially owned by each executive officer, director, and holder of more than 10% of our common stock have been excluded in that such persons may be deemed to be affiliates.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement relating to its 2025 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K are incorporated herein by reference in Part III of this Annual Report on Form 10-K where indicated.

Auditor Firm Id: 688 Auditor Name: Marcum LLP Auditor Location: San Francisco, CA

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (the “Annual Report”) contains forward-looking statements. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). All statements contained in this Annual Report, other than statements of historical fact, including, without limitation, statements about our beliefs and expectations regarding our future results of operations and financial position, planned business model and strategy, our bitcoin mining and HPC data center development, timing and likelihood of success, capacity, functionality and timing of operations of data centers, expectations regarding the operations of data centers, potential strategic initiatives, such as joint ventures and partnerships, and management plans and objectives are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “seeks,” “intends,” “targets,” “projects,” “contemplates,” “believes,” “estimates,” “forecasts,” “predicts,” “potential” or “continue” or the negative of these terms or other similar expressions, although not all forward-looking statements use these words or expressions. The forward-looking statements in this Annual Report are only predictions and are largely based on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and results of operations. Forward-looking statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance, or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the important factors discussed in Part I, Item 1A, “Risk Factors,” Part II, Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this Annual Report, and in our future reports filed with the Securities and Exchange Commission (the “SEC”). The forward-looking statements in this Annual Report are based upon information available to us as of the date of this Annual Report, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

You should read this Annual Report and the documents that we reference in this Annual Report and have filed as exhibits to this Annual Report with the understanding that our actual future results, performance and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements. These forward-looking statements speak only as of the date of this Annual Report. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained in this Annual Report, whether as a result of any new information, future events or otherwise.

WHERE YOU CAN FIND MORE INFORMATION

Our corporate website address is https://www.ciphermining.com ("Corporate Website"). The contents of, or information accessible through, our Corporate Website are not part of this Annual Report.

The Company maintains a dedicated investor website at https://investors.ciphermining.com/investors ("Investors' Website") which is similarly not part of this Annual Report. We make our filings with the SEC, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to those reports, available free of charge on our Investors' Website as soon as reasonably practicable after we file such reports with, or furnish such reports to, the SEC.

We may use our Investors' Website as a distribution channel of material information about the Company including through press releases, investor presentations, sustainability reports, and notices of upcoming events. We intend to utilize our Investors' Website as a channel of distribution to reach public investors and as a means of disclosing material non-public information for complying with disclosure obligations under Regulation FD.

Any reference to our Corporate Website or Investors' Website addresses do not constitute incorporation by reference of the information contained on or available through those websites, and you should not consider such information to be a part of this Annual Report or any other filings we make with the SEC.

SUMMARY RISK FACTORS

Our business is subject to numerous risks and uncertainties, including those described in Part I, Item 1A. "Risk Factors" in this Annual Report. You should carefully consider these risks and uncertainties when investing in our common stock ("Common Stock"). The principal risks and uncertainties affecting our business include the following:

- We operate in a rapidly evolving industry and have an evolving business model and strategy, which includes our increasing focus on diversification into constructing and operating data centers for HPC companies, as well as bitcoin mining.
- If we fail to grow our hashrate, we may be unable to compete, and our results of operations could suffer.
- The further development and acceptance of digital asset networks and other digital assets, which represent a new and rapidly changing industry, are subject to a variety of factors that are difficult to evaluate. The slowing or stopping of the development or acceptance of digital asset systems may adversely affect an investment in us.
- We may face several risks due to disruptions in the digital asset markets, including but not limited to, financing risk, risk of increased losses or impairments in our investments or other assets, risks of legal proceedings and government investigations, and risks from price declines or price volatility of digital assets.
- Any unfavorable global economic, business or political conditions, such as geopolitical tensions, military conflicts, acts of terrorism, natural disasters, pandemics, trade restrictions, tariffs, or similar events could adversely affect our business, financial condition and results of operations.
- Bitcoin mining activities are energy-intensive, which may restrict the geographic locations of miners and have a negative environmental impact. Government regulators may potentially restrict the ability of electricity suppliers to provide electricity to mining operations, such as ours, increase taxes on the purchase of electricity used to mine bitcoin, or even fully or partially ban mining operations.
- We have concentrated our operations and, thus, are particularly exposed to the performance of the Odessa Facility and changes in the regulatory environment, market conditions and natural disasters in Texas.
- We depend on third parties, including electric grid operators, electric utility providers and manufacturers of certain critical and specialized equipment, and rely on components and raw materials that may be subject to price fluctuations or shortages, including application-specific integrated circuit ("ASIC") chips that have been subject to periods of significant shortage and high innovation pace.
- We may be affected by price fluctuations in the wholesale and retail power markets.
- We are vulnerable to severe weather conditions and natural disasters, including severe heat, winter weather events, earthquakes, fires, floods, hurricanes, as well as power outages and other industrial incidents or mechanical failures, which could severely disrupt the normal operation of our business and adversely affect our results of operations.
- Bitcoin miners and other necessary hardware are subject to malfunction, technological obsolescence and physical degradation
- If we or our third-party providers fail to protect confidential information and/or experience cybersecurity incidents, such as cyber-attacks, data breaches, hacking attacks or malware, there may be disruptions to our operations, triggering significant liability for us, which could harm our operating results and financial condition, and damage our reputation or otherwise materially harm our business.
- The value of bitcoin has historically been subject to wide swings, and our operating results may be adversely affected by our hedging activity.
- There is a potential that, in the event of a bankruptcy filing by a custodian, bitcoin held in custody could be determined to be property of a bankruptcy estate and we could be considered a general unsecured creditor thereof.

- Regulatory changes or actions may restrict the use of bitcoin in a manner that adversely affects our business, prospects or operations.
- Our sources of revenue are dependent on bitcoin and the Bitcoin ecosystem, which can be highly volatile.
- Any potential use of emerging technologies like artificial intelligence, machine learning and generative artificial intelligence could lead to unintended consequences and result in reputational harm and litigation.
- We have identified a material weakness in our internal control over financial reporting which, if not timely remediated, may adversely affect the accuracy and reliability of our future financial statements, and our reputation, business and the price of our common stock, as well as may lead to a loss of investor confidence in us.

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PART I

Item 1. Business.

Unless the context otherwise requires, references in this Annual Report to the "Company," "Cipher," "Cipher Mining," "we," "us" or "our" refers to Cipher Mining Inc. and its consolidated subsidiaries, unless otherwise indicated.

Business Overview

We develop and operate industrial-scale data centers. Our active portfolio and development pipeline is expected to consist of more than 3.0 GW of capacity across 11 sites. We currently operate four bitcoin mining data centers and have a pipeline of seven additional sites in Texas, including one site expected to energize in May 2025. As we develop the sites in our pipeline and source future sites, we evaluate their suitability for either bitcoin mining or high-performance computing ("HPC"). For further details on our data centers, see "*—Data Center Portfolio*."

Our current intention is to continue expanding our business by developing and operating industrial-scale data centers for bitcoin mining and HPC, expanding capacity at our current data centers, developing our treasury management platform and entering into other strategic arrangements, such as joint ventures, data center hosting and leasing agreements, or software licensing arrangements. We aim to be a market leader in innovation, including in bitcoin mining growth, data center construction and as a hosting partner to HPC companies.

Data Center Portfolio

We currently operate approximately 327 MW of facilities across four bitcoin mining data centers in Texas, including one wholly-owned data center and three partially-owned data centers that we acquired through investments in joint ventures. We also have a pipeline of approximately 2.8 GW across seven additional sites in Texas, including one site that we expect to energize in May 2025. We will continue to evaluate other sites, locations and partnerships to expand our data center operations, selecting sites that are suitable for bitcoin mining and HPC data centers.

As of January 31, 2025, we operated an aggregate hashrate capacity of approximately 15.7 exahash per second ("EH/s"), deploying approximately 327 megawatts ("MW") of electricity, of which we owned an aggregate hashrate capacity of approximately 13.5 EH/s, deploying approximately 266 MW of electricity. As further discussed in "*—Our Strategy*", we plan to deploy an additional approximately 150 MW for a total of approximately 477 MW of electrical capacity by the end of 2025, and a corresponding hashrate of at least approximately 25.2 EH/s, of which we expect to own approximately 23.0 EH/s, with the remainder being owned by WindHQ, our JV partner. For further details on our joint ventures, see "*—Business Agreements—Joint Ventures*."

Odessa Facility

Our largest operational data center is our Odessa data center (the "Odessa Facility"), which is our wholly-owned 207 MW facility located in Odessa, Texas. The Odessa Facility is an approximately 52 acre site, located next to a natural gas power production facility. We began bitcoin mining operations on this site in November 2022 and completed the build out of the site in September 2023. As of January 31, 2025, the Odessa Facility is capable of producing approximately 11.3 EH/s of hashrate capacity. We have developed, and continue to refine, proprietary technology to increase the efficiency of our mining activity and associated curtailment due to changes in local electrical power prices at the Odessa Facility. Our goal is to maximize the time our miners are mining bitcoin at favorable prices and, in contrast, to avoid consuming electrical power when the cost of that power is significantly higher than our anticipated bitcoin mining revenues.

The power at the Odessa Facility is supplied by Luminant ET Services Company LLC ("Luminant") under a power purchase agreement, pursuant to which we have access, until at least July 2027, to a cost of electricity of approximately 2.7 c/kWh. For further details on our power purchase agreement with Luminant, see "*—Business Agreements—Luminant Power Agreement*."

Alborz Facility

Our Alborz data center (the "Alborz Facility" or "Alborz") is located near Happy, Texas and is partially-owned through a joint venture with WindHQ LLC ("WindHQ"). We have a 49% membership interest in Alborz LLC, which owns the Alborz Facility.

Alborz is currently a 40 MW facility powered solely by Falvez Energy's Astra Wind Project (the "Astra Wind Farm"), owned by an affiliate of WindHQ, next to which it is co-located. The Alborz Facility's capacity is approximately 1.3 EH/s, of which we own approximately 0.64 EH/s under the WindHQ Joint Venture Agreement.

Because the sole source of electricity for the Alborz Facility is the nearby wind farm, operating the Alborz miners involves frequent adjustments to the hashing power because of changes in the wind. When there is not sufficient wind to generate enough electrical power for our miners, we curtail our mining activity. For certain related risks, see "*Risk Factors—Risks Related to Our Business, Industry and Operations—Bitcoin miners and other necessary hardware are subject to malfunction, technological obsolescence and physical degradation*." We have developed, and continue to refine, proprietary technology to increase the efficiency of our mining activity and associated curtailment due to wind conditions at the Alborz Facility.

We may, with our joint venture partner, Wind HQ, seek to connect the Alborz Facility to the local electrical grid, if we are able to secure applicable regulatory approvals on favorable economic terms. There is no assurance that we will be able to secure such approval on acceptable terms, in a timely manner or at all. If we are able to do so, then our dependence on the wind power supplied by the Astra Wind Farm will be lower and, to the extent that we can supplement electrical power from the local grid at a favorable cost, we anticipate being able to increasingly avoid curtailment time and increase the time spent mining bitcoin at the Alborz Facility. Separately, we may also have the opportunity to expand the capacity of the Alborz Facility up to 163 MW, subject to applicable regulatory approvals. See "*Risk Factors—Risks Related to Our Business, Industry and Operations—Bitcoin miners and other necessary hardware are subject to malfunction, technological obsolescence and physical degradation*."

Bear Facility

Our Bear data center (the "Bear Facility") is located near Andrews, Texas and is also partially-owned through a joint venture with WindHQ. The Bear Facility is connected to the electrical grid. We have a 49% membership in Bear LLC, which owns the Bear Facility. The Bear Facility was expanded in 2024 from 10 MW to 40 MW. It is capable of hashing at a rate of up to approximately 1.6 EH/s. We aim to maximize the time our miners are mining bitcoin at favorable prices and, in contrast, to avoid consuming electrical power when the cost of that power is significantly higher than our anticipated bitcoin mining revenues.

The Bear Facility has the capacity to expand up to 115 MW, subject to applicable regulatory approvals.

Chief Facility

Our Chief data center (the "Chief Facility") is also located near Andrews, Texas and is also partially-owned through a joint venture with WindHQ. The Chief Facility is connected to the electrical grid. We have a 49% membership interest in Chief Mountain LLC, which owns the Chief Facility. The Chief Facility was expanded from 10 MW to 40 MW in 2024. It is capable of hashing at a rate of up to approximately 1.6 EH/s. We aim to maximize the time our miners are mining bitcoin at favorable prices and, in contrast, to avoid consuming electrical power when the cost of that power is significantly higher than our anticipated bitcoin mining revenues.

The Chief Facility has the capacity to expand up to 115 MW, subject to applicable regulatory approvals.

Black Pearl Facility

Our Black Pearl data center ("Black Pearl" or the "Black Pearl Facility") is located in Winkler County, Texas. The Black Pearl Facility has conditional interconnection approval from Electricity Reliability Council of Texas ("ERCOT"), the organization that operates Texas' electrical grid, of up to 300 MW. We expect to energize the 300 MW substation in the second quarter of 2025. We intend to conduct bitcoin mining in the first phase of the Black Pearl Facility of up to 150 MW. The remaining 150 MW of the site is suitable for either HPC hosting or bitcoin mining.

Barber Lake Site

Our Barber Lake site ("Barber Lake" or the "Barber Lake Site") is located near Colorado City, Texas. The Barber Lake Site has ERCOT interconnection approval of up to 300 MW and includes an energized substation. The site is suitable for developing a data center for either HPC or bitcoin mining.

Stingray Site

Our Stingray site ("Stingray" or the "Stingray Site") is located in West Texas. The Stingray Site has conditional ERCOT interconnection approval of up to 100 MW. We expect to energize the site in the first half of 2026.

Reveille Site

Our Reveille site ("Reveille" or the "Reveille Site") is located in Cotulla, Texas. The Reveille Site has interconnection of up to 70 MW, with the possibility for expansion before we energize. We expect to energize the site in the first half of 2027.

Site Options

In October 2024, we acquired the right to purchase three sites in West and North Texas, each with a targeted capacity of up to 500 MW. We will be able to exercise the option in the next 24 months to acquire the sites, including 580 acres of land to be either leased or purchased. Each site has the potential for developing data centers for either HPC or bitcoin mining.

Data Center Sourcing, Development and Operation

Our core business model involves sourcing new sites, designing and developing data center facilities, and operating them for our self-owned bitcoin mining operations or for potential HPC tenants. We believe this process and our team's expertise are key to our operational success and maintaining our competitiveness. Our team conducts a rigorous process of sourcing, technical design, construction and operations.

Sourcing

Our team's experience and strong industry relationships offer us insight into sourcing attractive sites. We consider size, energization timing, required power capacity, regulatory approvals, location, anticipated power costs and other factors in evaluating potential sites. We take into consideration requirements for bitcoin mining operations or potential HPC operations.

Our team begins sourcing potential sites up to a few years in advance of planned development. We source new data center locations by acquiring or leasing property that we can develop for use as data center facilities, including constructing on greenfield land. We believe the competition for power capacity and energized facilities is ever increasing, and we also look at opportunities to convert existing facilities for our data center operations or to acquire data centers from other companies.

Regardless of the source of our data center capacity, our team's goal is to ensure our facilities meet our high standards for operational efficiency and safety.

Construction

After procuring a site, we design and, through cooperation with developers, contractors, and suppliers, build out a facility that meets our advanced design and technical requirements. We believe our team's industry experience and process serve as a foundation for ensuring our data centers meet the highest standards for operational efficiency and safety. Our team oversees construction project management, including vendor selection, procurement, budgeting, quality supervision, obtaining approvals and more. We believe that these elements are important to ensure the project is completed on time, within budget, and to specific quality standards.

We typically will determine the business model planned for the site prior to construction to best-suit a bitcoin mining data center or a potential HPC tenant's needs. As we expand beyond bitcoin mining, our approach aims to cater to a range of requirements and site characteristics, including power and water capacity, redundancy, power density, cooling, rack configuration and other technical specifications.

Operation

Our data center operations team manages the daily operation of our data center facilities. Our team's extensive industry experience and commitment to operational excellence help us meet our goal of safely operating data centers at the highest standards. In 2024, the Odessa Facility was the first bitcoin mining data center to receive the Management and Operations, or M&O, Approved Site award from the Uptime Institute, an independent organization focused on improving the performance, efficiency, and reliability of business-critical infrastructure that has established standards and performance certifications for data center design and construction.

Our team oversees all aspects of our data center's operations, which include data center performance, miner performance at our bitcoin mining operations, network performance and incident response management.

Our technology team has also developed proprietary software for data center management and optimization, which provides critical real-time information on our data centers' performance and enables us to optimize our operations. For more information on our proprietary software, see "—*Intellectual Property*."

We believe that our team's experience and high standards for data center operations set us apart from many of our competitors.

Revenue Structure

Currently, our revenue is derived from mining bitcoin. Specifically, we purchase electrical power and use it to run miners that produce computing power. We contribute the computing power we produce to one or more mining pools verifying transactions on the Bitcoin blockchain in exchange for block rewards and transaction fees. This means that we send our computing power, or hashrate, to the mining pool in exchange for a proportionate share of bitcoin mined by the pool. We have no immediate plans to establish our own mining pool. We intend to periodically re-evaluate this as part of our overall strategy going forward and, in the future, we may also decide to stop using mining pools. To the extent that we can produce bitcoin through mining at a cost that is lower than the market price of bitcoin, over the long term we expect to generate profits.

Block rewards are rewards paid in bitcoin that are programmed into the Bitcoin software and awarded to a miner, or a group of miners, for solving the cryptographic problem required to create a new block on the Bitcoin blockchain. Block rewards are fixed and the Bitcoin network is designed to reduce them periodically through halving. Most recently, in April 2024, the block reward was reduced from 6.25 to 3.125 bitcoin, and it will halve again, to 1.5625 bitcoin, which is estimated to occur in April 2028.

Bitcoin miners also collect transaction fees for each transaction they confirm. Miners validate unconfirmed transactions by adding the previously unconfirmed transactions to new blocks in the blockchain. Miners are not forced to confirm any specific transaction, but they are economically incentivized to confirm valid transactions as a means of collecting fees. Miners have historically accepted relatively low transaction fees, but transaction fees vary and it is difficult to predict what transaction fees will be in the future.

We have a portfolio of electrical power that is designed to assist us in profitably mining bitcoin. We purchase a majority of the power for our currently operational data centers at a fixed cost. To the extent that we do not use purchased electrical power to mine bitcoin, we seek to sell that electrical power back to the market. To the extent we can sell such surplus power at a price greater than our cost to purchase it, we expect to generate profits. If we are curtailed by our power provider, we may purchase power from the electrical grid.

Business Agreements

Joint Ventures

On June 10, 2021, we and WindHQ signed a framework agreement for a joint venture for the construction, build out, deployment and operation of data centers in the United States (the "WindHQ Joint Venture Agreement"). We currently operate three data centers (the Alborz Facility, the Bear Facility, and the Chief Facility) that were built under the WindHQ Joint Venture Agreement, each of which is owned by a separate limited liability company in which WindHQ owns 51% of the membership interests and we own 49% of the membership interests.

WindHQ provides the power to the Alborz Facility, and certain construction and operations support. At the Bear Facility and the Chief Facility, electrical power is purchased from a retailer at ERCOT market prices. We manage each data center to mine bitcoin when the cost of electrical power in the relevant market is such that we think we can mine bitcoin profitably. In contrast, when the cost of electrical power is higher than we think makes it possible for us to profitably mine bitcoin, we curtail our mining operations at the data center. The Bear Facility and the Chief Facility do not currently have fixed price power purchase agreements. Depending on market conditions, we may enter into such agreements, but only if we are able to do so on favorable terms, which we cannot guarantee.

Luminant Power Agreement

On June 23, 2021, we entered into a power purchase agreement with Luminant for the supply of electric power to the Odessa Facility, which was subsequently amended and restated on July 9, 2021, and further amended (as amended, the "Luminant Power Agreement"), pursuant to which we have access, until at least July 2027, to a cost of electricity of approximately 2.7 c/kWh. The Luminant Power Agreement provides for a take or pay arrangement, whereby, Luminant will supply, and we are obligated to accept and pay for, a total electrical power capacity equal to at least 66.7% of the full 207 MW capacity each year at a predetermined MWh rate. The agreement also provides for certain curtailment events pursuant to which Luminant has a right to curtail the electrical power delivered in each contractual year.

Subject to certain early termination exceptions, the agreement provides for a subsequent automatic annual renewal, unless either party provides written notice to the other party of its intent to terminate the agreement at least six months prior to the expiration of then current term.

Miner Purchases

The substantial majority of our capital expenditures to date have been devoted to the development and construction of our bitcoin mining data centers and the acquisition of mining hardware. We have purchased miners from Bitmain, SuperAcme, and Canaan.

Bitcoin and Blockchain

Our business model at our currently operational sites focuses on bitcoin mining.

Bitcoin is the oldest and most commonly used cryptocurrency today. As outlined by the seminal bitcoin whitepaper, *Bitcoin: A Peer-to-Peer Electronic Cash System*, bitcoin is a form of digital currency, or an "electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party." Bitcoin depends on a consensus-based network and a public ledger, known as a "blockchain," which contains the record of every bitcoin transaction ever processed. Transactions listed on the Bitcoin blockchain are verified through a process called "mining."

The miners we operate are highly specialized computer servers built to use application-specific integrated circuit ("ASIC") chips that are designed specifically to mine bitcoin. These computer servers are referred to as "mining rigs," "miners," and "rigs." With them we produce computing power, known as "hashrate," with which we verify transactions on the Bitcoin blockchain. Bitcoin "mining" refers to the process of proposing and verifying transaction updates to the Bitcoin blockchain, which helps keep the Bitcoin network and its blockchain secure.

HPC Hosting

In addition to bitcoin mining, we have been actively pursuing opportunities to develop portions of our sites and power pipeline for HPC hosting and leasing. The expansion of artificial intelligence ("AI") applications and the expected electricity requirements required for AI data centers has made parts of our power and site pipeline attractive to hyperscalers and other AI and HPC companies. Our business specializes in designing, constructing and managing data centers tailored to support HPC applications. We are currently exploring opportunities with potential tenants to develop some of our sites into HPC or AI data centers, including our Barber Lake facility. For the sites in our development pipeline that are attractive for HPC, we will continue to explore developing them for HPC and entering into long term lease arrangements with hyperscalers or other AI and HPC companies. To the extent we do not find such tenants for any particular site on terms that are attractive to us, then we will consider using the site for bitcoin mining.

Our Strengths

We believe we have strengths that give us a competitive advantage in the data center construction and operations business, including the following.

Valuable assets with strategic adjacencies and potential long-term opportunities

We believe we are strategically well-positioned to continue developing and expanding our data center operations business, and also to enhance them through other long-term opportunities in the Bitcoin ecosystem and beyond. Those opportunities could include, for example, potential partnerships with larger companies in HPC, energy, technology and financial services, as well as offering construction, operational and data science services associated with bitcoin mining or HPC hosting.

We believe demands for data center infrastructure have increased substantially and that the data center industry is poised for continued significant growth, driven by rapid adoption of digital technologies across all sectors, such as bitcoin mining and HPC. We believe our valuable portfolio of data center sites and our ability to continue sourcing and developing sites is a key strategic advantage against this competitive landscape.

Key management's track record with relevant expertise and capabilities

We have an experienced executive management team with many years of relevant experience and significant industry and technical knowledge. The executive management team has recruited talented employees with experience and expertise in finance, data science, data center construction and operation, power procurement, logistics, and computer science fields. Many of our employees have significant management experience, which complements our business model and talent management philosophy that favors a lean head count structure and the use of third-party vendors and contractors, as well as technology, to reduce fixed costs. We hope to leverage the talents and efforts of the entire team in developing and operating our data centers and in sourcing new opportunities. We believe our team's experience and ability to source data center sites in the face of extreme demand is a valuable asset to the business.

Scalable operations sourced by identifying attractive site characteristics

We believe we have developed a valuable power portfolio across our current and future pipeline of sites and that we have developed a repeatable power strategy to significantly scale our operations.

With respect to bitcoin mining, we believe that scale can be a key factor in driving cost and margin improvements in the bitcoin mining business, as well as providing a degree of protection against the price volatility associated with bitcoin. As of January 31, 2025, we have deployed approximately 327 MW of electrical capacity across our four data centers, with a corresponding hashrate of approximately 15.7 EH/s, of which we owned approximately 13.5 EH/s. As further discussed in "*—Our Strategy*", we plan to deploy an additional approximately 150 MW for a total of approximately 477 MW of electrical capacity by the end of 2025, and a corresponding hashrate of at least approximately 25.2 EH/s, of which we expect to own approximately 23.0 EH/s, with the remainder being owned by WindHQ, our JV partner.

In 2025, we plan to expand deployment of electrical capacity at our existing data centers, including our Black Pearl Facility that is under construction, at our other pipeline of sites, and potentially also at new, yet to be secured, sites. We plan to use cash flows that we expect to generate from our operations and potentially additional sources of financing, or joint venture or other arrangements, to fund the required capital expenditures associated with any potential expansion.

Cost leadership with reliable electricity supply and resilient business model with downside protection against drops in bitcoin prices

Our current portfolio of power for our data centers has an average cost that we believe to be among the lowest in the industry. For further details on those arrangements, see "*—Business Agreements—Luminant Power Agreement*." We have access, until at least July 2027, to competitive electricity costs, with a cost of electricity of approximately 2.7 c/kWh. We believe that we operate one of the most efficient mining rig fleets in the global market by running our mining equipment with proprietary software applications that help us maximize computing power output per MW while attempting to minimize unintentional downtime and repair costs. Additionally, our strategy involves curtailing our mining operations, meaning we turn the miners on and off, for a variety of contractual, economic, weather related, business or other reasons. At our sites that do not have contractually fixed price power, for example, we operate our proprietary software to curtail during times when power prices are high; in this way we significantly reduce the prices we pay for power at these data centers. For further details, see "*Risk Factors—Risks Related to Our Business, Industry and Operations—Bitcoin miners and other necessary hardware are subject to malfunction, technological obsolescence and physical degradation*."

The overall hashrate of the Bitcoin network is generally correlated with bitcoin price, and any significant fall in bitcoin price may force high-cost miners to cease their mining activities, which would typically result in a decrease of the network power. Because the number of blocks available to be mined is set by Bitcoin protocol irrespective of the network's hashrate or bitcoin prices, in periods of low bitcoin prices, low-cost producers may have the opportunity to take the market share of less-efficient participants.

We believe that our controlled power costs, whether through contractually fixed price power arrangements or the use of our proprietary data center operations software, use of leading technology, and reliable operations and maintenance services will provide our mining operations with resilience against drops in bitcoin prices.

Our Strategy

Our strategy is to develop and operate industrial-scale data centers for bitcoin mining and HPC, as we aim to be a market leader in innovation, including in bitcoin mining growth, data center construction and as a hosting partner to HPC companies.

Commitment to growth, innovation and retaining flexibility to consider strategically adjacent opportunities to expand our business model

We recognize the value of our data centers and power infrastructure when combined with innovative and disruptive technologies, like bitcoin mining, blockchain technology and HPC. As the competition for power capacity and data center locations continues to increase, we aim to capitalize on our commitment to innovation and flexibility by expanding our business to include data center construction for industries beyond bitcoin mining, such as HPC hosting. We believe we have been able to maintain an innovative approach by leveraging our experienced team's know-how in power origination, data center design and construction project management, and technology. Our commitment to innovation is also demonstrated by our development of proprietary technology to manage data center operations, particularly power management and curtailment.

Similarly, as the Bitcoin ecosystem develops and our business, including our bitcoin inventory, grows, we aim to retain flexibility in considering and engaging in various strategic initiatives that may be complimentary to our bitcoin mining operations. For example, we have enhanced our treasury management platform by engaging market counterparties with which we can hedge some or all of the value of our bitcoin inventory or the value of our expected forward production, and we could consider initiatives such as: (i) lending out bitcoin as an additional line of revenue; (ii) engaging into strategic acquisitions or joint ventures; (iii) leveraging our expected bitcoin holdings to enter into strategic partnerships in the fintech space; (iv) engaging in asset management products; and (v) providing operational support or mining-as-a-service products, which may involve working with infrastructure investors on managed bitcoin mining deployments and other potential projects.

Establish our cost leadership as a bitcoin mining operator and maintain strong relationships with our industry partners

We seek to structure relationships with our equipment and service providers, power suppliers and other potential partners as long-term relationships. We believe this approach will help us expand our operations in a cost-effective manner that will contribute to the operational stability of our bitcoin mining business. In addition, we aim to be one of the lowest cost producers of bitcoin. We believe that will serve us well in bull markets for bitcoin and protect us in bear markets.

Use of mining pools

As part of our operations, we use third-party mining pools to mine bitcoin. This means that we send our computing power, or hashrate, to the mining pool in exchange for a proportionate share of bitcoin mined by the pool. We have no immediate plans to establish our own mining pool. We intend to periodically re-evaluate this as part of our overall strategy going forward and, in the future, we may also decide to stop using mining pools.

Use of custodians

We generally store the majority of our bitcoin in cold storage, unless we transfer it to a trading account to be sold or pledged as security for loans or derivatives we may enter into with market counterparties. We use Coinbase Prime as our primary custodian to store our bitcoin, but also have accounts with other custodians. We periodically re-evaluate these services and, in the future, may decide to use additional or other custodians. As part of our regular treasury management, we consider market conditions and our financial obligations to determine if any portion of newly mined or stored bitcoin should be transferred to the hot wallet for liquidation. See "*Risk Factors—Risks Related to Our Business, Industry and Operations—There is a potential that, in the event of a bankruptcy filing by a custodian, bitcoin held in custody could be determined to be property of a bankruptcy estate and we could be considered a general unsecured creditor thereof*" and "*Our limited insurance protection exposes us and our shareholders to the risk of loss of our bitcoin for which no person is liable.*"

Focus on building our operations in the United States

Our operations are currently all within the United States. We believe that the North American market, and specifically the United States, represents a particularly attractive geographic region for data center operations, particularly bitcoin mining. Two key drivers for this are the attractive market dynamics and its stable regulatory environment. We believe that the strong market dynamics in the United States are particularly driven by low-cost energy and reliable power infrastructure, investor interest in bitcoin mining and access to capital markets, access to data center construction and operations talent markets, and potential opportunities to partner with energy industry participants on projects involving renewable energy sources. On the regulatory side, while crypto asset regulation in the United States, as in the rest of the world, is still in development (see "—*Government Regulation*"), we believe that the regulatory framework for bitcoin in the United States is sufficiently well established and accepted. Furthermore, we believe that the U.S. digital asset ecosystem is more tightly regulated and may attract more compliance-oriented investors, which is expected to contribute to the overall stability of the ecosystem. We may in the future consider establishing operations in other countries, depending on the business opportunity and the relative risks associated with the relevant jurisdiction.

Competition

Bitcoin is mined all over the world by a variety of miners, including individuals, public and private companies, and mining pools. We define our principal competitors as other publicly traded bitcoin miners because there is widely available information about their operations. Several public companies (traded in the United States and internationally), such as the following, may be considered to compete with us:

- MARA Holdings, Inc.
- Riot Platforms, Inc.
- CleanSpark, Inc.
- Hut 8 Corp.
- Hive Digital Technologies Ltd.
- Bitfarms Ltd.
- IREN Limited
- TeraWulf Inc.
- Core Scientific, Inc.
- Bit Digital, Inc.
- Bitdeer Technologies Group

Currently, our data centers are all located in Texas, where we may face significant and increasing competition, because Texas, through its regulatory and economic incentives, has encouraged bitcoin mining companies, like ours, to locate their operations in the state. Texas is also an attractive market for locating AI or HPC data centers. There is also a possibility that, in the future, foreign governments may decide to subsidize or in some other way support certain large-scale cryptocurrency mining projects. See "*Risk Factors—Risks Related to Regulatory Framework—Regulatory changes or actions may restrict the use of bitcoin in a manner that adversely affects our business, prospects or operations.*"

Thus, we compete against many companies and entities operating both within the United States and abroad. Equally important, as bitcoin price increases, additional miners may be drawn into the market. The corollary would mean that as bitcoin price decreases, miners that are less cost-efficient may be driven out of the market.

Government Regulation

As a company operating at the intersection of data center, bitcoin mining and HPC hosting services, we are committed to maintaining a proactive and adaptive approach to regulatory compliance. We closely monitor legislative and regulatory developments and engage in dialogue with relevant stakeholders to ensure our business practices align with the evolving legal and regulatory framework. Despite uncertainties posed by a changing regulatory landscape, we remain committed to maintaining innovative and responsible business practices in data center, bitcoin mining and HPC hosting markets. We operate in a complex and rapidly evolving regulatory environment and we are subject to a wide range of laws and regulations enacted by U.S. federal, state and local governments, governmental agencies and regulatory authorities, including the SEC, the Commodity Futures Trading Commission, the Federal Trade Commission and the Financial Crimes Enforcement Network of the U.S. Department of the Treasury, as well as similar entities in other countries. Other regulatory bodies, governmental or semi-governmental, have shown an interest in regulating or investigating companies engaged in the blockchain or cryptocurrency businesses. As the regulatory and legal environment evolves, we may become subject to new laws and further regulation by the SEC, the Commodity Futures Trading Commission (the "CFTC"), other federal agencies and state and local governments, which may affect our mining and other activities. For example, on January 23, 2025, the Trump Administration signed an executive order titled "Strengthening American Leadership in Digital Financial Technology," which introduces new dynamics to the regulatory landscape. This order emphasizes the importance of the digital asset industry in U.S. innovation and economic development, outlining policies to support the growth and use of digital assets and blockchain technology. Key policies outlined in the executive order include ensuring access to open public blockchain networks for lawful purposes, promoting the U.S. dollar's sovereignty through lawful dollar-backed stablecoins, and providing regulatory clarity with technology-neutral regulations. The establishment of a new working group within the National Economic Council to propose a federal regulatory framework for digital assets could lead to significant changes in market structure, oversight, consumer protection, and risk management. The evolving regulatory environment may pose challenges to our operations, particularly if new regulations introduce additional compliance costs or restrict certain activities. Additionally, various bills have been proposed in the U.S. Congress related to our business, which may be adopted and have an impact on us, and governmental agencies and regulatory authorities, such as the SEC, the CFTC, the Federal Trade Commission (the "FTC") and the Financial Crimes Enforcement Network of the U.S. Department of the Treasury ("FinCEN"), may also enact regulations related to our business, which may have an impact on us

On a state level, there have been several recent legislative efforts to manage power consumption and support grid reliability, which affects our business, as an operator of industrial-scale data centers. In 2025, the Texas legislature introduced legislation to support ERCOT's grid reliability by proposing minimum transmission rates on certain large loads and removing phantom loads from its interconnection queue to enhance accuracy of actual future load growth. Such regulation may increase the costs of running our current data centers and sourcing new potential sites in Texas. In 2025, the Public Utility Commission of Texas (the "PUCT") also required operators of large virtual currency mining operations connected to register their facilities with the PUCT. For additional discussion regarding our belief about the potential risks existing and future regulation pose to our business, see "*Risk Factors—Risks Related to Regulatory Framework.*"

Furthermore, because we may strategically expand our operations into new areas, see "*—Our Strategy—Commitment to growth, innovation and retaining flexibility to consider strategically adjacent opportunities to expand our business model,*" we may become subject to additional regulatory requirements.

Intellectual Property

We use specific hardware and software for our data center operations. In certain cases, source code and other software assets may be subject to an open source license, as much technology development underway in this sector is open source. For these works, we intend to adhere to the terms of any license agreements that may be in place.

In addition, we have developed and continue to refine certain proprietary trade secrets and software applications to enhance the profitability and operational effectiveness of our data center operations and may continue to develop those applications or others in the future. We hold two granted United States patents and one allowed U.S. patent application. Additionally, we have pending U.S. and foreign patent applications for our proprietary technology used in our data center operations. We rely upon trade secrets, trademarks, service marks, trade names, copyrights and other intellectual property rights and license the use of intellectual property rights owned and controlled by others.

Human Capital Management

As of the date of this filing, we have 43 full-time employees and officers. We believe our employee relations to be good. We aim to attract and retain talented and dedicated employees who contribute to the operation of our business model. As such, we have recruited employees with experience and expertise in the following areas: finance, data science, data center construction and operation, computer science, power procurement, and logistics. We aim to instill an "ownership culture" in all areas of our business model, and our compensation and benefits philosophies are designed to retain our employees and recruit new employees as necessary.

Seasonality

Our annual and quarterly operating results have the potential to be significantly affected by seasonality related to weather and the related energy commodity price volatility. The price of electric power typically peaks during the winter and summer months, and more generally during extreme weather events, which can potentially impact the Company's results. Additionally, extreme weather conditions may affect the efficiency and uptime of our mining operations which will have an impact on operating results.

Corporate Information

Cipher Mining Inc. was incorporated as a Delaware corporation on August 27, 2021 in connection with the closing of a transaction (the "Business Combination") pursuant to which Good Works Acquisition Corp. ("GWAC"), a special purpose acquisition company, consummated the merger of a wholly-owned direct subsidiary of GWAC with and into Cipher Mining Technologies Inc. ("CMTI"). Following the Business Combination, the combined company was named Cipher Mining Inc. ("Cipher" or the "Company"). The Company comprises all of GWAC's and CMTI's operations.

Our principal executive offices are located at 1 Vanderbilt Avenue, Floor 54, New York, NY 10017, and our telephone number is (332) 262-2300.

Available Information

Our website address is www.ciphermining.com. The contents of, or information accessible through, our website are not part of this Annual Report on Form 10-K. We make our filings with the SEC, including our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports, as well as beneficial ownership filings available free of charge on our website as soon as reasonably practicable after we file such reports with, or furnish such reports to, the SEC.

Investors and others should note that the Company announces material financial and operational information to its investors using press releases, SEC filings and public conference calls and webcasts, as well as its investor relations site at investors.ciphermining.com. The Company may also use its website as a distribution channel of material Company information. In addition, you may automatically receive email alerts and other information about the Company when you enroll your email address by visiting the "Email Alerts" option under the Investor Resources tab on investors.ciphermining.com.

The reference to our website address does not constitute incorporation by reference of the information contained on or available through our website, and you should not consider such information to be a part of this Annual Report on Form 10-K.

Item 1A. Risk Factors.

Our business involves significant risks, some of which are described below. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Annual Report. The realization of any of these risks and uncertainties could have a material adverse effect on our reputation, business, financial condition, results of operations, growth and future prospects as well as our ability to accomplish our strategic objectives. In that event, the market price of our common stock or public warrants could decline and you could lose part or all of your investment.

Unless the context otherwise requires, references in this Annual Report to the "Company," "Cipher," "Cipher Mining," "we," "us" or "our" refers to Cipher Mining Inc. and its consolidated subsidiaries, unless otherwise indicated.

Risks Related to Our Business, Industry and Operations

We operate in a rapidly evolving industry and have an evolving business model and strategy, which includes our increasing focus on diversification into constructing and operating data centers for HPC companies, as well as bitcoin mining.

To stay current with a digital assets industry that is rapidly evolving, we expect the services and products associated with them to evolve and, thus, that our business model may need to evolve.

From time to time, we may modify aspects of our business model or engage in various strategic initiatives, which may be complimentary to our bitcoin mining operations. For further information on our strategy, see "*Business—Our Strategy—Commitment to growth, innovation and retaining flexibility to consider strategically adjacent opportunities to expand our business model.*" Our growth strategy includes exploring the expansion and diversification of our revenue sources into new markets. For example, we are increasing our focus on diversification into constructing and operating data centers for HPC companies. We cannot offer any assurance that these or any other modifications will be successful or will not result in harm to the business, damage our reputation and limit our growth. Such modifications may increase the complexity of our business and place significant strain on our management, personnel, operations, systems, technical performance, financial resources and internal financial control and reporting functions. Moreover, we may not be able to manage growth effectively, which could damage our reputation, limit our growth and adversely affect our operating results. Further, we cannot provide any assurance that we will successfully identify all emerging trends and growth opportunities within the digital assets industry, the HPC market or other markets we seek to expand into, and we may lose out on such opportunities. Additionally, any such changes to our business model or strategy could cause us to become subject to additional regulatory scrutiny and a number of additional requirements, including licensing and permit requirements. Any of the foregoing could have a material adverse effect on our business, prospects, financial condition, and operating results.

If we fail to grow our hashrate, we may be unable to compete, and our results of operations could suffer.

Generally, a bitcoin miner's chance of solving a block on the bitcoin blockchain and earning a bitcoin reward is a function of the miner's hashrate (i.e., the amount of computing power devoted to supporting the Bitcoin blockchain), relative to the global network hashrate. As demand for bitcoin has increased, the global network hashrate has increased, and to the extent more adoption of bitcoin occurs, we would expect the demand for bitcoin would increase, drawing more mining companies into the industry and further increasing the global network hashrate. As new and more powerful miners are deployed, the global network hashrate will continue to increase, meaning a miner's percentage of the total daily rewards will decline unless it deploys additional hashrate at pace with the growth of global hashrate. Accordingly, to compete in this highly competitive industry, we believe we will need to continue to acquire new miners, both to replace those lost to ordinary wear-and-tear and other damage, and to increase our hashrate to keep up with a growing global network hashrate.

Furthermore, predicting the growth in network hashrate is extremely difficult. To the extent that hashrate increases but the price of bitcoin does not, the results of our bitcoin mining operations would suffer.

The further development and acceptance of digital asset networks and other digital assets, which represent a new and rapidly changing industry, are subject to a variety of factors that are difficult to evaluate. The slowing or stopping of the development or acceptance of digital asset systems may adversely affect an investment in us.

The use of cryptocurrencies to, among other things, buy and sell goods and services and complete transactions, is part of a new and rapidly evolving industry that employs cryptocurrency assets, including bitcoin, based upon a computer-generated mathematical or cryptographic protocol. Large-scale acceptance of bitcoin as a means of payment has not, and may never, occur. The growth of this industry in general, and the use of bitcoin in particular, is subject to a high degree of uncertainty, and the slowing or stopping of the development or acceptance of developing protocols may occur unpredictably. These factors include, but are not limited to:

- worldwide growth in the adoption and use of bitcoin as a medium to exchange;
- governmental and quasi-governmental regulation of bitcoin and its use, or restrictions on or regulation of access to and operation of the Bitcoin network or similar cryptocurrency systems;
- changes in consumer demographics and public tastes and preferences;
- the maintenance and development of the open-source software protocol of the Bitcoin network;
- the increased consolidation of contributors to the Bitcoin blockchain through bitcoin mining pools;
- the availability and popularity of other cryptocurrencies and other forms or methods of buying and selling goods and services, including new means of using fiat currencies;
- the use of the networks supporting cryptocurrencies for developing smart contracts and distributed applications;
- general economic conditions and the regulatory environment relating to cryptocurrencies;
- environmental or tax restrictions, excise taxes or other additional costs on the use of electricity to mine bitcoin;
- an increase in bitcoin transaction costs and any related reduction in the use of and demand for bitcoin;
- unpredictability or turbulence in the digital assets industry due to major events, such as failure of key institutions in the digital asset industry;
- the introduction of disruptive technologies, such as AI/HPC, that compete for large scale sites; and

- negative consumer sentiment and perception of bitcoin specifically or cryptocurrencies generally.

We may face several risks due to disruptions in the digital asset markets, including but not limited to, financing risk, risk of increased losses or impairments in our investments or other assets, risks of legal proceedings and government investigations, and risks from price declines or price volatility of digital assets.

In the second half of 2022 and beginning of 2023, some of the well-known digital asset market participants, including Celsius Network LLC, et al., Voyager Digital Ltd., et al., Three Arrows Capital and Genesis Global Holdco, LLC, et al. declared bankruptcy, resulting in a loss of confidence in participants of the digital asset ecosystem and negative publicity surrounding digital assets more broadly. In November 2022, FTX Trading Ltd. ("FTX"), the third largest digital asset exchange by volume at the time, halted customer withdrawals and shortly thereafter, FTX and its subsidiaries filed for bankruptcy.

In response to these and other similar events (including significant activity by various regulators regarding digital asset activities, such as enforcement actions, against a variety of digital asset entities, including Coinbase, Kraken and Binance), the digital asset markets, including the market for bitcoin specifically, experienced extreme price volatility and several other entities in the digital asset industry have been, and may continue to be, negatively affected, further undermining confidence in the digital assets markets and in bitcoin. These events have also negatively affected the liquidity of the digital asset markets as certain entities affiliated with FTX and platforms such as Coinbase, Kraken and Binance have engaged, or may continue to engage, in significant trading activity. If the liquidity of the digital asset markets continues to be negatively impacted by these events, digital asset prices (including the price of bitcoin) may continue to experience significant volatility and confidence in the digital asset markets may be further undermined. These events are continuing to develop and it is not possible to predict at this time all of the risks that they may pose to us, our service providers or on the digital asset industry as a whole.

Although we had no direct exposure to any of the above-mentioned cryptocurrency companies (with the exception of Coinbase, which is discussed in "—*There is a potential that, in the event of a bankruptcy filing by a custodian, bitcoin held in custody could be determined to be property of a bankruptcy estate and we could be considered a general unsecured creditor thereof*", nor any material assets that may not be recovered or may otherwise be lost or misappropriated due to the bankruptcies, the failure or insolvency of large exchanges or other significant players in the digital asset space may cause the price of bitcoin to fall and decrease confidence in the ecosystem, which could adversely affect an investment in us.

Any unfavorable global economic, business or political conditions, such as geopolitical tensions, military conflicts, acts of terrorism, natural disasters, pandemics, trade restrictions, tariffs, or similar events could adversely affect our business, financial condition and results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets, including conditions that are outside of our control. Geopolitical tensions, acts of terrorism, hostilities or the perception that hostilities may be imminent, military conflict and acts of war, including sanctions or other restrictive actions, by the United States and/or other countries, could adversely impact our business, supply chain or partners. Additionally, increasing tariffs or other restrictions could potentially cause a slowdown in global trade and increase cost of certain goods and adversely affect our operations, or could more directly affect our business by making the hardware or other products we need to build and operate our data centers more expensive.

For example, the U.S. government has announced increased tariffs on China, and increased scrutiny over imports into the United States. The U.S. Customs and Border Protection agency's ("CBP") also has broad discretion regarding products imported into the United States and has detained and/or seized imported miners, which has caused bitcoin miners to experience delays in receiving miners. We have also faced immaterial delays due to the CBP's detention and/or seizure of imported miners in the past and may again in the future. As the majority of miners are manufactured outside of the United States, such tariffs, trade restrictions, the threat of tariffs and trade restrictions, and increased focus over imports into the country could increase our costs and delay shipments needed for us to obtain new miners. These tariffs and any retaliatory action that may be taken have introduced significant uncertainty into the market, leading to volatility in material prices and potential delays in project timelines, which could negatively affect our operations, strategic planning and financial forecasting.

Events like these, particularly if they occur in regions of the world where we operate or source our mining equipment, could cause supply chain disruptions for some of our mining equipment components. Our operations are particularly vulnerable to potential interruptions in the supply of certain critical materials and metals, such as neon gas and palladium, which are used in semiconductor manufacturing. Any interruption to semiconductor chip supply could significantly impact our ability to receive the mining equipment and timely roll-out of our operations. For example, an increase in geopolitical tensions in Asia, particularly in the Taiwan Strait, could significantly disrupt existing semiconductor chip manufacturing and increase the prospect of an interruption to the semiconductor chip supply across the world. The world's largest semiconductor chip manufacturer is located in Taiwan and a large part of equipment and materials for our bitcoin miners, including ASIC chips, is manufactured in Taiwan. There is also a potential increase in risk for cyberattacks due to cyberwarfare in connection with ongoing military conflicts and geopolitical unrest.

Other global conditions, including natural disasters, pandemics, regional conflicts, tariffs, recessions, inflationary issues and associated changes in monetary policy or commodity prices, foreign currency fluctuations, social, political and economic risks, could adversely affect our business, financial condition and results of operations.

Any disruptions or failures of our systems or other services that we use, including as a result of these types of events, a decision by one of our third-party service providers to close facilities that we use without adequate notice or to materially change the pricing or terms of their services, or other unanticipated problems with our systems or the third-party services that we use, could severely impact our ability to conduct our business operations, which could materially adversely affect our future operating results.

Bitcoin mining activities are energy-intensive, which may restrict the geographic locations of miners and have a negative environmental impact. Government regulators may potentially restrict the ability of electricity suppliers to provide electricity to mining operations, such as ours, increase taxes on the purchase of electricity used to mine bitcoin, or even fully or partially ban mining operations.

Mining bitcoin requires large amounts of electrical power, and electricity costs account for a significant portion of our overall costs. The availability and cost of electricity restrict the geographic locations of our mining activities. Any shortage of electricity supply or increase in electricity costs in any location where we operate may negatively impact the viability and expected economic return for bitcoin mining activities in that location.

Our business model can only be successful if the costs, including electrical power costs, associated with bitcoin mining are lower than the price of bitcoin itself. As a result, our mining operations can only be successful if we can obtain sufficient electrical power for that site on a cost-effective basis, and our establishment of new mining data centers requires us to find sites where that is the case. Even if our electrical power costs do not increase, significant fluctuations in, and any prolonged periods of, low bitcoin prices may also cause our electrical supply to no longer be cost-effective.

Furthermore, government scrutiny related to restrictions on bitcoin mining, other virtual currency mining and HPC data center facilities and demand for power capacity and energy consumption has in the past increased as such industries have become more widespread. The consumption of electricity by mining operators may also have a negative environmental impact, including contribution to climate change, which could set the public opinion against allowing the use of electricity for bitcoin mining activities or create a negative consumer sentiment and perception of bitcoin.

State and federal regulators are increasingly focused on the energy and environmental impact of bitcoin mining activities. In March 2022, ERCOT, the organization that operates Texas' electrical grid, started requiring large scale digital asset miners to apply for permission to connect to Texas' power grid, and in April 2022, set up a task force committee to review the participation of large flexible loads, including bitcoin data centers, in the ERCOT market. The task force has been tasked to develop policy recommendations for consideration by ERCOT relating to network planning, markets, operations, and large load interconnection processes for large flexible loads in the ERCOT network. We experienced delays in the energization of the Odessa Facility due to ERCOT's new process, and may face additional delays and obligations in the future.

At the federal level, legislation has been proposed by various Senators that would require certain agencies to analyze and report on topics around energy consumption in the digital asset industry, including the type and amount of energy used for cryptocurrency mining and the effects of digital asset mining on energy prices and baseload power levels. There have been calls by various members of Congress on the Environmental Protection Agency ("EPA") and Department of Energy to establish rules that would require digital asset miners to report their energy usage and emissions.

Government regulators in other countries have banned or substantially limited their local cryptocurrency mining activities, or may do so in the future, which could have a material effect on our competitiveness, by affecting supply chains for mining equipment or services and the price of bitcoin. For further details on our competition, see "*—We operate in a highly competitive industry and we compete against companies that operate in less regulated environments as well as companies with greater financial and other resources, and our business, operating results, and financial condition may be adversely affected if we are unable to respond to our competitors effectively.*"

Additionally, our mining operations could be materially adversely affected by power outages and similar disruptions. Given the power requirements for our mining equipment, it would not be feasible to run this equipment on back-up power generators in the event of a government restriction on electricity or a power outage. Under some of our power arrangements, our power supply could be automatically reduced or curtailed by the market regulators or grid operators in cases of certain system disruptions or emergencies. If we are unable to receive adequate power supply and are forced to reduce or shut down our operations due to the availability or cost of electrical power, it would have a material adverse effect on our business, prospects, financial condition, and operating results.

We have concentrated our operations and, thus, are particularly exposed to the performance of the Odessa Facility and changes in the regulatory environment, market conditions and natural disasters in Texas.

We currently operate all of our data centers in Texas, and the Odessa Facility was responsible for mining approximately 88% of the bitcoin we produced in the year ended December 31, 2024. Consequently, our business operations and financial condition are particularly reliant on the performance of the Odessa Facility. If any critical equipment fails or there are delays in repairing equipment at the Odessa Facility, our business operations and financial results may be severely affected.

Additionally, we are particularly exposed to changes in the regulatory environment, market conditions and natural disasters in this state. See *"—We are vulnerable to severe weather conditions and natural disasters, including severe heat, winter weather events, earthquakes, fires, floods, hurricanes, as well as power outages and other industrial incidents or mechanical failures, which could severely disrupt the normal operation of our business and adversely affect our results of operations."* Texas, through its regulatory and economic incentives, has encouraged bitcoin mining companies, like ours, to locate their operations in the state. As such, we face increased competition in Texas for suitable bitcoin mining data center sites and skilled workers. Additionally, if the regulatory and economic environment in Texas were to become less favorable to bitcoin mining companies or HPC, including by way of increased taxes, our heavy concentration of sites in Texas means our business, financial condition and results of operations could be adversely affected.

We depend on third parties, including electric grid operators, electric utility providers and manufacturers of certain critical and specialized equipment, and rely on components and raw materials that may be subject to price fluctuations or shortages, including ASIC chips that have been subject to periods of significant shortage and high innovation pace.

We depend on third parties, including electric grid operators Oncor Electric Delivery Company LLC ("Oncor") and American Electric Power Company, Inc. ("AEP") , the Texas electric utility ERCOT, and manufacturers of critical components for our mining equipment and our data centers, which may be subject to price fluctuations or shortages. For example, our bitcoin mining operations require approval to operate from Oncor, AEP and ERCOT, which can be onerous to obtain. If Oncor, AEP or ERCOT delay in providing such approval, or change the requirements to operate bitcoin mining facilities, our business plans may be disrupted and our results of operations may be negatively affected.

We are also reliant on critical equipment to supply power to our bitcoin mining operations at our data center facilities and we are exposed to the risk of disruptions or other failures in the overall global supply chain for bitcoin mining and related data center hardware. See also "*—Any unfavorable global economic, business or political conditions, such as geopolitical tensions, military conflicts, acts of terrorism, natural disasters, pandemics, trade restrictions, tariffs, or similar events could adversely affect our business, financial condition and results of operations*." This is particularly relevant to the ASIC chip production since there is only a small number of fabrication facilities capable of such production, which increases our risk exposure to manufacturing disruptions or other supply chain failures, but it also applies to other infrastructure hardware necessary for operating our data centers, such as transformers, cables, and switch gear. If this critical equipment malfunctions or we have delays in the ability to fix such equipment, it could adversely affect our operations and financial results. Similarly, our operations are dependent on manufacturers of specialized equipment, such as miners. If we are too dependent on one or a few miner manufacturers, and there are any technological issues with that manufacturer, our operations could be negatively affected.

We may be affected by price fluctuations in the wholesale and retail power markets.

While our power arrangement contains fixed power prices, they also contain certain price adjustment mechanisms in case of certain events. Furthermore, a portion of our power arrangements includes merchant power prices, or power prices reflecting market movements.

Market prices for power, generation capacity and ancillary services, are unpredictable. Depending upon the effectiveness of any price risk management activity undertaken by us, an increase in market prices for power, generation capacity, and ancillary services may adversely affect our business, prospects, financial condition, and operating results.

Long- and short-term power prices may fluctuate substantially due to a variety of factors outside of our control, including, but not limited to:

- increases and decreases in generation capacity;
- changes in power transmission or fuel transportation capacity constraints or inefficiencies;
- volatile weather conditions, particularly unusually hot or mild summers or unusually cold or warm winters;
- technological shifts resulting in changes in the demand for power or in patterns of power usage, including the potential development of demand-side management tools, expansion and technological advancements in power storage capability and the development of new fuels or new technologies for the production or storage of power;
- federal and state power, market and environmental regulation and legislation; and
- changes in capacity prices and capacity markets.

If we are unable to secure power supply at prices or on terms acceptable to us, it would have a material adverse effect on our business, prospects, financial condition, and operating results.

We are vulnerable to severe weather conditions and natural disasters, including severe heat, winter weather events, earthquakes, fires, floods, hurricanes, as well as power outages and other industrial incidents or mechanical failures, which could severely disrupt the normal operation of our business and adversely affect our results of operations.

Our business is subject to the risks of severe weather conditions and natural disasters, including severe heat, winter weather events, earthquakes, fires, floods, hurricanes, as well as power outages and other industrial incidents, any of which could result in system failures, power supply disruptions and other interruptions that could harm our business. Since our business and operations are located in Texas, we are particularly vulnerable to disruptions affecting that state. Furthermore, the majority of our bitcoin production and all our revenues currently come from the Odessa Facility. Any significant system failures or power disruptions at that site could harm our business even if our other sites remain unaffected. See "*—We have concentrated our operations and, thus, are particularly exposed to the performance of the Odessa Facility and changes in the regulatory environment, market conditions and natural disasters in Texas.*"

We do not carry business interruption insurance sufficient to compensate us for the losses that may result from interruptions in our operations as a result of system failures. A system outage or data loss, caused by it, could have a material adverse effect on our business, prospects, financial condition, and operating results.

Bitcoin miners and other necessary hardware are subject to malfunction, technological obsolescence and physical degradation.

Our miners are subject to malfunctions and normal wear and tear, and, at any point in time, a certain number of our miners are typically off-line for maintenance or repair. The physical degradation of our miners will require us to replace miners that are no longer functional. Because we use many units of the same miner models, if there is a model wide component malfunction whether in the hardware or the software that powers these miners, the percentage of offline miners could increase substantially, disrupting our operations. Any major miner malfunction out of the typical range of downtime for normal maintenance and repair could cause significant economic damage to us.

A hardware replacement or upgrading process may require substantial capital investment and we may face challenges in doing so on a timely and cost-effective basis, which could put us at a competitive disadvantage. We may also be impacted by disruptions in the supply chain for cryptocurrency hardware. During the course of implementing any such new technology into our operations, we may experience system interruptions and failures during such implementation. Furthermore, there can be no assurances that we will recognize, in a timely manner or at all, the benefits that we may expect as a result of our implementing new technology into our operations. As a result, our business, prospects, financial condition and operating results could be adversely affected. Any of the risks above could have a material adverse effect on our business, prospects, financial condition, and operating results.

If we or our third-party providers fail to protect confidential information and/or experience cybersecurity incidents, such as cyber-attacks, data breaches, hacking attacks or malware, there may be disruptions to our operations, triggering

significant liability for us, which could harm our operating results and financial condition, and damage our reputation or otherwise materially harm our business.

As a publicly traded company, we and third parties that we rely upon face numerous and evolving cybersecurity threats and experience cyber-attacks, such as phishing and other attempts to gain unauthorized access to our systems on a regular basis, and we anticipate continuing to be subject to such attempts. There is an ongoing risk that some or all of our bitcoin could be lost or stolen as a result of one or more of these security incidents. As we increase in size, and threat actors become increasingly sophisticated in using techniques and tools—including artificial intelligence—that circumvent security controls, evade detection and remove forensic evidence, we may become a more appealing target of hackers, malware, cyber-attacks or other security threats. We may also be unable to detect, investigate, remediate or recover from future attacks or incidents and eliminate all such vulnerability. For example, we provide cybersecurity training for employees, but we cannot guarantee that we will not be affected by further phishing attempts.

Additionally, we may not be able to ensure the adequacy of our security measures or those employed by third parties, including our mining pool service providers, custodians or other counterparties. Our business operations and reputation depend on our ability to maintain the confidentiality, integrity and availability of data, digital assets and systems related to our business, personal information, proprietary technologies, processes and intellectual property ("Confidential Information"). We, our business and commercial partners rely extensively on third-party service providers' information technology, computer systems, hardware, software, technology infrastructure and online sites and networks (collectively, "IT Systems"), including renewable energy infrastructure, cloud-based systems and on-premises servers (i.e., data centers), to record and process transactions and manage our operations, among other matters. We and our third-party service providers, partners, custodians and collaborators, may experience failures of, or disruptions to, IT systems and may be subject to attempted and successful security breaches or cybersecurity incidents. Efforts to limit the ability of malicious actors to disrupt the operations of the internet or undermine our own security efforts may be costly to implement and may not be successful. Such incidents, whether attributable to a vulnerability in our or third party IT Systems, or otherwise, could result in claims of liability against us, damage our reputation and materially harm our business. Remote and hybrid working arrangements at our company, and at many third-party providers, also increase cybersecurity risks due to the challenges associated with managing remote computing assets and security vulnerabilities that are present in many non-corporate and home networks. Additionally, any integration of artificial intelligence in our or any service providers' or partners' operations, products or services is expected to pose new or unknown cybersecurity risks and challenges.

Any adverse impact to the availability, integrity or confidentiality of our IT Systems or Confidential Information, may adversely affect our business or our reputation and could have a material adverse effect on our financial condition. In addition, we face numerous and evolving cybersecurity risks, including from diverse threat actors, such as state-sponsored organizations, opportunist hackers and hacktivists, as well as through diverse attack vectors, such as social engineering/phishing, malware (including ransomware), malfeasance by insiders, human or technological error, or other unscrupulous third parties who develop and deploy viruses and other malicious software programs that could attack our IT Systems and Confidential Information. In the case of such a security breach, IT failure or other cybersecurity incident, we may suffer damage to our key systems and experience (i) interruption in our services, (ii) loss of ability to control or operate our equipment; (iii) misappropriation of personal data and (iv) loss of Confidential Information or other critical data that could interrupt our operations; each of which may adversely impact our reputation and brand by resulting in significant incident response, system restoration or remediation and future compliance costs and expose us to increased risks of governmental and regulatory investigations, enforcement actions, legal claims or proceedings (such as class actions), fines and penalties, and other liability, any of which could adversely affect our business. A data breach or security incident may also trigger mandatory data breach notification obligations under applicable privacy and data protection laws, which, if applicable, could lead to widespread negative publicity and a loss in confidence regarding the effectiveness of our data security measures. Furthermore, mitigating the risk of future attacks or IT Systems failures have resulted, and could in the future result, in additional operating and capital costs in systems technology, personnel, monitoring and other investments. In addition, insurers are currently reluctant to provide cybersecurity insurance for digital assets and cryptocurrency assets and we do not currently hold cybersecurity insurance. Therefore, in the event of any such actual or potential incidents, our costs and resources devoted and any impacted assets may not be partially or fully recoverable.

To date, we have not experienced a material cybersecurity incident; however, we cannot guarantee we will not experience any incident in the future. There can also be no assurance that our cybersecurity risk management program and processes, including our policies, controls or procedures, will be fully implemented, complied with or effective in protecting our IT Systems and Confidential Information. The occurrence of any such event in the future could damage our reputation or otherwise materially harm our business, operating results, and financial condition.

The value of bitcoin has historically been subject to wide swings, and our operating results may be adversely affected by our hedging activity.

The market price of one bitcoin in our principal market ranged from approximately $38,501 to $108,389 during the fiscal year ended December 31, 2024, $16,490 to $45,000 during the fiscal year ended December 31, 2023. While bitcoin prices are determined primarily using data from various exchanges, over-the-counter markets and derivative platforms, they have historically been volatile and are impacted by a variety of factors. Such factors include, but are not limited to, the worldwide growth in the adoption and use of bitcoins, the maintenance and development of the software protocol of the Bitcoin network, changes in consumer demographics and public tastes, fraudulent or illegitimate actors, real or perceived scarcity, and political, economic, regulatory or other conditions. Furthermore, pricing may be the result of, and may continue to result in, speculation regarding future appreciation in the value of bitcoin, or our share price, making prices more volatile. In the United States, the Trump administration has issued an executive order generally asserting the importance of the digital assets industry to the U.S. economy, and instructing a working group consisting of various agency heads to consider the implementation of a strategic reserve of bitcoin and other digital assets. If any such strategic reserve were to be put in place, transactions by such strategic reserve could result in increased volatility and price swings as market actors may place additional significance on trading by the U.S. government.

From time to time, we may also hedge some portion of the value of our bitcoin in inventory or some portion of the value of our expected forward production, which may limit our exposure to substantial increases in the price of bitcoin. Given the volatility of bitcoin price, there is also a risk that we execute hedges at suboptimal levels thereby foregoing some amount of price appreciation that we otherwise would have enjoyed without the hedges in place. Currently, we do not use a formula or specific methodology to determine whether or when we will hedge or sell bitcoin that we hold, or the number of bitcoins we will hedge or sell. Rather, decisions to hold, hedge or sell bitcoins are currently determined by management by analyzing forecasts and monitoring the market in real time. Such decisions, however well-informed, may result in untimely sales and even losses, adversely affecting an investment in us.

There is a potential that, in the event of a bankruptcy filing by a custodian, bitcoin held in custody could be determined to be property of a bankruptcy estate and we could be considered a general unsecured creditor thereof.

All of the bitcoin we hold is held in either cold or hot storage at our custodians. We primarily use Coinbase Prime, but we also use Anchorage Digital Bank N.A. and Fidelity Digital Assets Services. We intend to periodically re-evaluate this and, in the future, we may also decide to use additional or other custodians.

The treatment of bitcoins held by custodians that file for bankruptcy protection is uncharted territory in U.S. Bankruptcy law. We cannot say with certainty whether our bitcoin held in custody at one of our custodians, or another custodian in the future, should it declare bankruptcy, would be treated as property of a bankruptcy estate and, accordingly, whether the owner of that bitcoin would be treated as a general unsecured creditor with respect to our bitcoin held in custody at that custodian. If we are treated as a general unsecured creditor, we may not be able to recover our bitcoin in the event of a bankruptcy of any of our custodians or any other custodian we may use in the future.

The Bitcoin we hold is not insured and not subject to FDIC or SIPC protections.

The bitcoin we hold is not insured. Therefore, any loss that we may suffer with respect to our bitcoin is not covered by insurance and no person may be liable in damages for such loss, which could adversely affect our operations. We do not hold our bitcoin with a banking institution or a member of the Federal Deposit Insurance Corporation (“FDIC”) or the Securities Investor Protection Corporation (“SIPC”) and, therefore, our bitcoin is not subject to the protections enjoyed by depositors with FDIC or SIPC member institutions.

Our success and future growth, to a significant degree, depends on the skills and services of our management team. The loss of any of our management team, our inability to execute an effective succession plan, or our inability to attract and retain qualified personnel, could adversely affect our business.

Our success and future growth, to a significant degree, depends on the skills and services of our management team. If our management team, including any new hires that we may make, fails to work together effectively and to execute our plans and strategies on a timely basis, our business could be significantly harmed. Furthermore, if we fail to execute an effective contingency or succession plan with the loss of any member of management, the loss of such management personnel may significantly disrupt our business.

Furthermore, the loss of key members of our management or other employees could inhibit our growth prospects. Our future success depends, in large part, on our ability to attract, retain and motivate key management and operating personnel. As we continue to develop and expand our operations, we may require personnel with different skills and experiences, who have a sound understanding of our business and the cryptocurrency industry, for example, specialists in power contract negotiations and management, as well as data center specialists. As cryptocurrency, and specifically bitcoin, mining, is a new and developing field, the market for highly qualified personnel in this industry is particularly competitive and we may be unable to attract such personnel. We also compete for talent in other fields, such as finance and traditional data center construction. If we are unable to attract such personnel, or retain current talent, it could have a material adverse effect on our business, prospects, financial condition, and operating results.

We may experience difficulties in effectively managing our growth and expanding our operations.

Our ability to manage our growth requires us to build upon and to continue to improve our operational, financial and management controls, compliance programs and reporting systems. We may not be able to implement improvements in an efficient or timely manner and may discover deficiencies in existing controls, programs, systems and procedures, which could have a material adverse effect on our business, prospects, financial condition, and operating results.

From time to time, we may consider potential acquisitions, joint venture or other investment opportunities. We cannot offer any assurance that acquisitions of businesses or assets, development of new sites, or entering into strategic alliances or joint ventures will be successful. We may not be able to find suitable partners or acquisition candidates and may not be able to complete such transactions on favorable terms, if at all. If we make any acquisitions, we may not be able to integrate these acquisitions successfully into the existing business and could assume unknown or contingent liabilities.

To finance any acquisitions or joint ventures, we may choose to issue shares of common stock, preferred stock, debt or a combination of debt and equity as consideration, which could significantly dilute the ownership of our existing stockholders or provide rights to such preferred stockholders in priority over our common stockholders. Additional funds may not be available on terms that are favorable to us, or at all. If the price of our common stock is low or volatile, we may not be able to acquire other companies or fund a joint venture project using stock as consideration.

Additionally, rapid growth in our business may place a strain on our managerial, operational and financial resources and systems. We may not grow as we expect, if we fail to manage our growth effectively or to develop and expand our managerial, operational and financial resources and systems, our business, prospects, financial condition and operating results could be adversely affected. See "*—Risks Related to our Common Stock and Warrants—We have identified a material weakness in our internal control over financial reporting which, if not timely remediated, may adversely affect the accuracy and reliability of our future financial statements, and our reputation, business and the price of our common stock, as well as may lead to a loss of investor confidence in us.*"

If we fail to maintain and enhance our brand and reputation, our business, operating results and financial condition may be adversely affected.

We believe our brand and reputation, particularly in the cryptocurrency ecosystem, is an important factor in the success and development of our business. As part of our strategy, we seek to structure our relationships with our equipment and service providers, power suppliers and other potential partners as long-term relationships. See "*Business—Our Strategy—Establish our cost leadership and maintain strong relationships with our industry partners*." Thus, maintaining, protecting, and enhancing our reputation is also important to our development plans, operational stability, and relationships with our power suppliers, equipment and service providers and other counterparties.

Furthermore, we believe that the importance of our brand and reputation may increase as competition further intensifies. Our brand and reputation could be harmed if we fail to perform under our agreements or if our public image were to be tarnished by negative publicity, unexpected events or actions by third parties. Furthermore, Bitfury Group Limited and its affiliates (collectively, the "Bitfury Group") is a significant shareholder. If any member of the Bitfury Group is subject to negative news or extensive publicity, this, even if untrue, may cause our counterparties to lose confidence in us. Any unfavorable publicity about us, including our technology, our personnel, our significant shareholder could have an adverse effect on the engagement of our partners and suppliers and may result in our failure to maintain or expand our business and successfully execute our business model.

Failure to keep up with evolving trends and shareholder expectations relating to ESG businesses or reporting could adversely impact our reputation, share price and access to and cost of capital.

Certain institutional investors, investor advocacy groups, investment funds, creditors and other influential financial markets participants have become increasingly focused on companies' ESG practices in evaluating their investments and business relationships, including the impact of bitcoin mining operations on the environment. Certain organizations also provide ESG ratings, scores and benchmarking studies that assess companies' ESG practices. Although there are currently no universal standards for such ratings, scores or benchmarking studies, they are used by some investors to inform their investment and voting decisions. It is possible that our shareholders or organizations that report on, rate or score ESG practices will not be satisfied with our ESG strategy or performance. However, increasingly, different stakeholder groups have divergent views on ESG matters, which increases the risk that any action or lack thereof with respect to ESG matters will be perceived negatively by at least some stakeholders and adversely impact our reputation and business. Unfavorable press about, or ratings or assessments of, our ESG strategies or practices, regardless of whether or not we comply with applicable legal requirements, regulations and executive orders, may lead to negative investor sentiment toward us, which could have a negative impact on our stock price and our access to and cost of capital.

Our compliance and risk management methods might not be effective and may result in outcomes that could adversely affect our reputation, operating results, and financial condition.

Our ability to comply with applicable complex and evolving laws, regulations, and rules is largely dependent on the maintenance of our compliance, audit, and reporting systems, as well as our ability to attract and retain qualified compliance and other risk management personnel. While we devote significant resources to develop policies and procedures to identify, monitor and manage our risks, we cannot assure you that our policies and procedures will always be effective against all types of risks, including unidentified or unanticipated risks, or that we will always be successful in monitoring or evaluating the risks to which we are or may be exposed in all market environments.

If we are unable to protect the confidentiality of our trade secrets or other intellectual property rights, our business and competitive position could be harmed.

Our ability to conduct our business in a profitable manner relies in part on our proprietary methods and designs, which we primarily protect as trade secrets. We rely upon trade secret and other intellectual property laws, physical and technological security measures and contractual commitments to protect our trade secrets and other intellectual property rights, including entering into non-disclosure agreements with employees, consultants and third parties with access to our trade secrets. However, such measures may not provide adequate protection and the value of our trade secrets could be lost through misappropriation or breach of our confidentiality agreements. For example, an employee with authorized access may misappropriate our trade secrets and provide them to a competitor, and the recourse we take against such misconduct may not provide an adequate remedy to protect our interests fully, because enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time consuming, and the outcome is unpredictable. Thus, if any of our trade secrets were to be disclosed or misappropriated, our competitive position could be harmed. In addition to the risk of misappropriation and unauthorized disclosure, our competitors may develop similar or better methods independently in a manner that could prevent legal recourse by us, which could result in costly process redesign efforts or other competitive harm. Furthermore, any of our intellectual property rights could be challenged, invalidated, circumvented, infringed, diluted, disclosed or misappropriated and adequate legal recourse may be unavailable. Thus, there can be no assurance that our trade secrets or other intellectual property rights will be sufficient to protect against competitors operating their business in a manner that is substantially similar to us.

Third parties may claim that we are infringing upon, misappropriating or otherwise violating their intellectual property rights, which may prevent or inhibit our operations and cause us to suffer significant litigation expense even if these claims have no merit.

Our commercial success depends on our ability to operate without undue cost and distraction of claims that we are infringing the intellectual property rights of third parties. However, third parties may own patents (or have pending patent applications that later result in patents) that our operations may infringe. In addition, third parties may purchase patents for the purpose of asserting claims of infringement and attempting to extract license fees via settlements from us. There also could be patents that we believe we do not infringe, but that we may ultimately be found to infringe. Further, because patents can take many years to issue, there may be currently pending applications of which we are unaware that may later result in issued patents that its operations infringe.

Finally, third parties could accuse us of misappropriating their trade secrets. Any claims of patent infringement or trade secret misappropriation, even claims without merit, could be costly and time-consuming to defend and could require us to divert resources away from operations. In addition, if any third party has a meritorious or successful claim that we are infringing their intellectual property, we may be forced to redesign our operations or secure a license from such third parties, which may be costly or impractical. We also may be subject to significant damages or injunctions that may cause a material adverse effect to our business and operations, if we cannot license or develop an alternative for any infringing aspect of its business, and may result in a material loss in revenue, which could adversely affect the trading price of our shares and harm our investors.

We and our third-party service providers, including mining pool service providers, custodians or other counterparties, may fail to adequately maintain the confidentiality, integrity or availability of the data we hold or detect any related threats, which could disrupt our normal business operations and our financial performance and adversely affect our business.

Our business operations and reputation depend on our ability to maintain the confidentiality, integrity and availability of data, digital assets and systems related to our business, customers, proprietary technologies, processes and intellectual property. We and our business and commercial partners, such as mining pools and other third parties with which we interact, rely extensively on third-party service providers' information technology ("IT") systems, including renewable energy infrastructure, cloud-based systems and on-premises servers (i.e., data centers), to record and process transactions and manage our operations, among other matters.

We and our third-party service providers, partners and collaborators, may in the future experience failures of, or disruptions to, IT systems and may be subject to attempted and successful security breaches or data security incidents. Security breaches or data security incidents experienced by us or our third-party service providers, manufacturers, joint collaborators, or other business or commercial partners, can vary in scope and intent from economically-driven attacks to malicious attacks targeting our key operating systems with the intent to disrupt, disable or otherwise cripple our operations. This can include any combination of phishing attacks, malware, ransomware attacks, insider threats or viruses targeted at our key systems and IT systems as well as those of our third-party service providers. In addition, certain types of attacks could harm us even if our systems are left undisturbed. For example, certain threats are designed to remain dormant or undetectable, sometimes for extended periods of time, or until launched against a target, and we may not be able to implement adequate preventative measures. Unauthorized parties have attempted, and we expect that they will continue to attempt, to gain access to our systems and facilities, as well as those of our partners and third-party service providers, through various means. A successful security breach or security incident may target us directly, or indirectly target or impact us through our third-party service providers, manufacturers, joint collaborators, or other business or commercial partners. A security breach or other security incident at a third-party service provider's location or ours, or within a third-party service provider's systems or ours, could affect our control over personal or confidential information or negatively impact our operations and ability to earn revenue.

The inadvertent disclosure of or unauthorized access to IT systems, networks and data, including personal information, confidential information and proprietary information, may adversely affect our business or our reputation and could have a material adverse effect on our financial condition. In addition, undiscovered vulnerabilities in our equipment or services could expose us to hackers or other unscrupulous third parties who develop and deploy viruses and other malicious software programs that could attack our equipment services and business. In the case of such a security breach, security incident or other IT failure, we may suffer damage to our key systems and experience (i) interruption in our services, (ii) loss of ability to control or operate our equipment; (iii) misappropriation of personal data and (iv) loss of critical data that could interrupt our operations, which may adversely impact our reputation and brand and expose us to increased risks of governmental and regulatory investigation and enforcement actions, private litigation and other liability, any of which could adversely affect our business. A security breach may also trigger mandatory data breach notification obligations under applicable privacy and data protection laws, which, if applicable, could lead to widespread negative publicity and a loss in confidence regarding the effectiveness of our data security measures. Furthermore, mitigating the risk of future attacks or IT systems failures have resulted, and could in the future result, in additional operating and capital costs in systems technology, personnel, monitoring and other investments. In addition, insurers are currently reluctant to provide cybersecurity insurance for digital assets and cryptocurrency assets and we do not currently hold cybersecurity insurance. Therefore, in the event of any such actual or potential incidents, our costs and resources devoted and any impacted assets may not be partially or fully recoverable. Most of our sensitive and valuable data, including digital assets, are stored with third-party custodians and service providers. Therefore, we rely on the digital asset community to optimize and protect sensitive and valuable data and identify vulnerabilities. There can be no guarantee that these measures and the work of the digital asset developer community will identify all vulnerabilities, errors and defects, or will resolve all vulnerabilities, errors and defects, prior to a malicious actor being able to utilize them. Any actual or perceived data security breach at any of those third-party custodians or service providers could lead to theft or irretrievable loss of our fiat currencies or digital assets, which may or may not be covered by insurance maintained by us or our third-party custodians or service providers.

We operate in a highly competitive industry and we compete against companies that operate in less regulated environments as well as companies with greater financial and other resources, and our business, operating results, and financial condition may be adversely affected if we are unable to respond to our competitors effectively.

The cryptocurrency ecosystem is highly innovative, rapidly evolving, and characterized by competition, experimentation, changing customer needs, frequent introductions of new products and services, and subject to uncertain and evolving industry and regulatory requirements. In the future, we expect competition to further intensify with existing and new competitors, within and outside the United States, which may have various advantages over us, such as:

- greater mining capabilities;
- more timely introduction or adoption of new technologies;
- preferred relationships with suppliers of mining machines and other equipment;
- access to more competitively priced power;
- greater financial resources to make acquisitions;
- lower labor, compliance, risk mitigation and research and development costs;
- larger and more mature intellectual property portfolios;
- greater number of applicable licenses or similar authorizations;
- established core business models outside of the mining or trading of digital assets, allowing them to operate on lesser margins or at a loss;
- operations in certain jurisdictions with lower compliance costs and greater flexibility to explore new product offerings; and
- substantially greater financial, technical and other resources.

The developments in the digital assets industry, including several high-profile bankruptcies and escalation of regulatory oversight, could potentially lead to increase in the M&A activity in the industry among our competition and increasing consolidation. This could significantly alter the competitive landscape in which we operate and lead to increasing competition in cryptocurrency mining as well as access to capital and other opportunities. For further details on the risks related to our industry development, see "*—The further development and acceptance of digital asset networks and other digital assets, which represent a new and rapidly changing industry, are subject to a variety of factors that are difficult to evaluate. The slowing or stopping of the development or acceptance of digital asset systems may adversely affect an investment in us*." and "*—Risks Related to Cryptocurrency—We may temporarily store our bitcoin on digital asset trading platforms which could subject our bitcoin to the risk of loss or access, especially in light of previous failures of major market participants. Such failures may also result in a reduction in the price of bitcoin and other cryptocurrencies and can adversely affect an investment in us*."

Additionally, regulatory actions, as well as any other political developments in the regions with active cryptocurrency trading or mining, may increase our domestic competition as some of those cryptocurrency miners or new entrants in this market may move their cryptocurrency mining operations or establishing new operations in the United States. See "*Risks Related to Regulatory Framework—Regulatory changes or actions may restrict the use of bitcoin in a manner that adversely affects our business, prospects or operations*" and "*—Any unfavorable global economic, business or political conditions, such as geopolitical tensions, military conflicts, acts of terrorism, natural disasters, pandemics, trade restrictions, tariffs, or similar events could adversely affect our business, financial condition and results of operations*." We may not be able to compete successfully against present or future competitors. We may not have the resources to compete with larger competitors and, consequently, may experience great difficulties in expanding and improving our operations to remain competitive. For details on our current competitive landscape, see "*Business—Competition*."

Competition from existing and future competitors could result in our inability to secure acquisitions and partnerships that we may need to expand our business in the future. This competition from other entities with greater resources, experience and reputations may result in our failure to maintain or expand our business, as we may never be able to successfully execute our business model. Furthermore, we anticipate encountering new competition if we expand our operations to new locations geographically and into wider applications of blockchain, cryptocurrency mining and data center operations. If we are unable to expand and remain competitive, or maintain our relative share of the Bitcoin network total hashrate, our business, prospects, financial condition and operating results could be adversely affected.

Our mining costs may be greater than our mining revenues, which could seriously harm our business and adversely impact an investment in us.

Mining operations are costly and our expenses may increase in the future. Increases in mining expenses may not be offset by corresponding increases in revenue, which is primarily driven by the value of bitcoin mined. Our expenses may become greater than we anticipate, and our investments to make our business more cost-efficient may not succeed. Further, even if our expenses remain the same or decline, our revenues may not exceed our expenses to the extent the price of bitcoin continues to decrease without a corresponding decrease in bitcoin network difficulty. Increases in our costs without corresponding increases in our revenue would adversely affect our profitability and could seriously harm our business and an investment in us.

Our automated processes with respect to curtailment may adversely affect our operations.

Our data centers are subject to curtailment, meaning we automatically turn the miners on and off depending on wind conditions, power prices, bitcoin prices and other factors. Additionally, at the Odessa Facility, we must curtail in certain instances when our power provider instructs us to do so. If we fail to do so in a timely manner, we could incur potentially significant increased costs. Thus, if we are unable to accurately monitor power prices and bitcoin economic data, or timely respond to a curtailment demand, it could have a material adverse effect on our business, prospects, financial condition, and operating results.

Our limited insurance protection exposes us and our shareholders to the risk of loss of our bitcoin for which no person is liable.

We do not currently maintain our own insurance coverage for our bitcoin holdings, which are held in custody by our custodians. Therefore, a loss may be suffered with respect to our bitcoin that is not covered by insurance and for which no person is liable in damages, which could adversely affect our operations and, consequently, an investment in us. Our custodians maintain a certain insurance coverage of such types and amounts as they assert to be commercially reasonable for their custodial services provided under our custody agreements with them, including certain commercial crime insurance of limited aggregate principal amount which covers losses stemming from fraud, security breach, hack and asset theft. However, such insurance coverage may be insufficient to protect us against all losses of our bitcoin holdings held in custody with our custodians, whether or not stemming from security breaches, cyberattacks or other types of unlawful activity. Therefore, a loss may be suffered with respect to our bitcoin that is not covered by insurance and for which no person is liable in damages, which could adversely affect our operations and, consequently, an investment in us.

We may need to raise additional capital, which may not be available on terms acceptable to us, or at all.

From time to time, we may require additional capital to expand our operations or to respond to technological advancements, competitive dynamics or technologies, customer demands, business opportunities, challenges, acquisitions or unforeseen circumstances. Accordingly, we may determine to engage in equity or debt financings or enter into credit facilities for the above-mentioned or other reasons. We may not be able to timely secure additional debt or equity financing on favorable terms, or at all. Our ability to obtain additional funds may also be affected by economic uncertainty and any disruptions in credit or capital markets as a result of geopolitical instability. See "*—Any unfavorable global economic, business or political conditions, such as geopolitical tensions, military conflicts, acts of terrorism, natural disasters, pandemics, trade restrictions, tariffs, or similar events could adversely affect our business, financial condition and results of operations*."

Furthermore, if we raise additional funds through equity financing, our existing stockholders could experience significant dilution. Any debt financing obtained by us in the future could also involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to grow or support our business and to respond to business challenges could be significantly limited and it could have a material adverse effect on our business, prospects, financial condition, and operating results.

The storage and custody of our bitcoin assets are subject to cybersecurity breaches, hacking, fraud risks and restriction on access, and we may not have adequate sources of recovery if our bitcoin assets are lost, stolen or destroyed.

There is a risk that some or all of our bitcoin assets could be subject to cybersecurity breaches, hacking, fraud risks and restriction on access, and we may not have adequate sources of recovery if our bitcoin assets are lost, stolen or destroyed. Hackers or malicious actors may launch attacks to steal or compromise cryptocurrencies, such as by attacking the cryptocurrency network source code, exchanges, miners, third-party platforms, cold and hot storage locations or software, or by other means.

We primarily use Coinbase Prime as our custodian to store our bitcoin, but also use other custodians to reduce the risk of loss. We rely on our custodians' security systems to safeguard our bitcoin holdings from theft, loss, destruction or other issues relating to hackers and technological attack. There can be no assurance that these custody services are more secure than self-storage or other alternatives. Human error and the constantly evolving state of cybercrime and hacking techniques may render present security protocols and procedures ineffective in ways which we cannot predict. Additionally, if our bitcoin holdings are lost, stolen or destroyed under circumstances rendering a party, such as our custodians, liable to us, the responsible party may not have the financial resources sufficient to satisfy our claim. For example, as to a particular event of loss, the only source of recovery for us might be limited, to the extent identifiable, to other responsible third parties (e.g., a thief or terrorist), any of which may not have the financial resources (including liability insurance coverage) to satisfy a valid claim of ours.

While our custodians maintain insurance coverage of such types and amounts as they assert to be commercially reasonable for their custodial services provided under our custody agreements with them, including certain commercial crime insurance of limited aggregate principal amount which covers losses stemming from fraud, security breach, hack and asset theft, such insurance coverage may be insufficient to protect us against all losses of bitcoin holdings held in custody with the custodian, whether or not stemming from security breaches, cyberattacks or other types of unlawful activity. Cryptocurrency transactions and accounts are also not insured by any type of government program and cryptocurrency transactions generally are permanent by design of the networks. Certain features of cryptocurrency networks, such as decentralization, the open source protocols, and the reliance on peer-to-peer connectivity, may increase the risk of fraud or cyber-attack by potentially reducing the likelihood of a coordinated response. Cryptocurrencies have suffered from hacking incidents and several cryptocurrency exchanges and miners have reported large cryptocurrency losses, which highlight concerns over the security of cryptocurrencies and in turn affect the demand and the market price of cryptocurrencies. The price of bitcoin can be adversely affected by hacking incidents.

The risk of damage to or loss of our bitcoin assets cannot be wholly eliminated. If our security procedures and protocols, or those of Coinbase Prime or other trading or custody platforms we use, are ineffective and our cryptocurrency assets are compromised by cybercriminals, we may not have adequate recourse to recover our losses stemming from such compromise. A security breach could also harm our reputation. A resulting perception that our measures do not adequately protect our bitcoin assets could have a material adverse effect on our business, prospects, financial condition, and operating results.

The emergence or growth of other digital assets, including those with significant private or public sector backing, could have a negative impact on the price of bitcoin and adversely affect our business.

Our business strategy is substantially dependent on the market price of bitcoin. As of the date of this Annual Report, bitcoin was the largest digital asset by market capitalization and had the largest user base and largest combined mining power. Despite this first to market advantage, there are over 10,000 alternative digital assets tracked by CoinMarketCap.com.

Many entities, including consortiums and financial institutions are also researching and investing resources into private or permissioned blockchain platforms or digital currencies that do not use proof-of-work mining like the Bitcoin network. Additionally, central banks in some countries have started to introduce digital forms of legal tender. For example, China's central bank digital currency ("CBDC") project was made available to consumers in January 2022, and governments from Russia to the European Union have been discussing potential creation of new digital currencies. Whether or not they incorporate blockchain or similar technology, CBDCs, as legal tender in the issuing jurisdiction, could have an advantage in competing with, or replacing, bitcoin and other cryptocurrencies as a medium of exchange or store of value. As a result, the value of bitcoin could decrease, which could have a material adverse effect on our business, prospects, financial condition, and operating results.

Risks Related to Regulatory Framework

Regulatory changes or actions may restrict the use of bitcoin in a manner that adversely affects our business, prospects or operations.

Bitcoin and other forms of digital assets have been the source of much regulatory consternation, resulting in differing definitional outcomes without a single unifying statement. Bitcoin and other digital assets are viewed differently by different regulatory and standards setting organizations globally as well as in the United States on the federal and state levels. For example, the Financial Action Task Force ("FATF") and the U.S. Internal Revenue Service ("IRS") consider a digital asset as currency or an asset or property. Further, the IRS applies general tax principles that apply to property transactions to transactions involving virtual currency. The CFTC classifies bitcoin as a commodity. The SEC has also publicly stated that it considers bitcoin to be a commodity, but that some digital assets should be categorized as securities. How a digital asset is characterized by a regulator impacts the rules that apply to activities related to that digital asset.

As digital assets have grown in both popularity and market size, governments around the world have reacted differently. Certain governments have deemed digital assets illegal or have severely curtailed the use of digital assets by prohibiting the acceptance of payment in bitcoin and other digital assets for consumer transactions and barring banking institutions from accepting deposits of digital assets. Other nations, however, allow digital assets to be used and traded without restriction. In some jurisdictions, such as in the U.S., digital assets are subject to extensive, and in some cases overlapping, unclear and evolving regulatory requirements. There is a risk that relevant authorities in any jurisdiction may impose more onerous regulation on bitcoin, for example banning its use, regulating its operation, or otherwise changing its regulatory treatment. Such changes may introduce a cost of compliance, or have a material impact on our business model, and therefore our financial performance and shareholder returns. If the use of bitcoin is made illegal in jurisdictions where bitcoin is currently traded in heavy volumes, the available market for bitcoin may contract. For example, on September 24, 2021, the People's Bank of China announced that all activities involving digital assets in mainland China are illegal, which corresponded with a significant decrease in the price of bitcoin. If another government with considerable economic power were to ban digital assets or related activities, this could have further impact on the price of bitcoin. As a result, the markets and opportunities discussed herein may not reflect the markets and opportunities available to us in the future.

On January 23, 2025, the Trump Administration signed an executive order titled "Strengthening American Leadership in Digital Financial Technology," which introduces new dynamics to the regulatory landscape. This order emphasizes the importance of the digital asset industry in U.S. innovation and economic development, outlining policies to support the growth and use of digital assets and blockchain technology. Key policies outlined in the executive order include ensuring access to open public blockchain networks for lawful purposes, promoting the U.S. dollar's sovereignty through lawful dollar-backed stablecoins, and providing regulatory clarity with technology-neutral regulations. The establishment of a new working group within the National Economic Council to propose a federal regulatory framework for digital assets could lead to significant changes in market structure, oversight, consumer protection, and risk management. The evolving regulatory environment may pose challenges to our operations, particularly if new regulations introduce additional compliance costs or restrict certain activities.

Digital asset trading platforms may also be subject to increased regulation and there is a risk that increased compliance costs are passed through to users, including us, as we exchange bitcoin earned through our mining activities. There is a risk that a lack of stability in the bitcoin exchange market and the closure or temporary shutdown of bitcoin exchanges due to fraud, business failure, hackers or malware, or government-mandated restrictions may reduce confidence in the Bitcoin network and result in greater volatility in or suppression of bitcoin's value and consequently have an adverse impact on our operations and financial performance. Although bitcoin is not currently treated as a security by the SEC, the exchanges on which bitcoin is traded typically provide trading services with respect to numerous other cryptocurrencies and digital assets, some of which may be deemed to be securities by the SEC, and some of them are currently under investigation by other regulators as well. If any of these exchanges are shut down due to regulatory action, it could become more difficult to us and for other holders of bitcoin to monetize our holdings. This could also result in a decrease in the overall price of bitcoin.

In the U.S., the Federal Reserve Board, U.S. Congress and certain U.S. agencies (e.g., the CTFC, the SEC, FinCEN) and the Federal Bureau of Investigation) have begun to examine the operations of the Bitcoin network, bitcoin users and the bitcoin exchange market, in light of the FTX and other bankruptcies. Increasing regulation and regulatory scrutiny may result in new costs for us and our management may have to devote increased time and attention to regulatory matters or change aspects of our business. Increased regulation may also result in limitations on the use cases of bitcoin. In addition, regulatory developments may require us to comply with certain regulatory regimes. For example, to the extent that our activities cause us to be deemed a "money service business" under the regulations promulgated by FinCEN under the authority of the U.S. Bank Secrecy Act ("BSA"), we may be required to comply with FinCEN regulations, including those that would mandate us to implement certain anti-money laundering programs, make certain reports to FinCEN and maintain certain records. See also "*—If regulatory changes or interpretations of our activities require our registration as a money services business ("MSB") under the regulations promulgated by FinCEN under the authority of the U.S. Bank Secrecy Act, or otherwise under state laws, we may incur significant compliance costs, which could be substantial or cost-prohibitive. If we become subject to these regulations, our costs in complying with them may have a material negative effect on our business and results of operations*." Any of the foregoing or similar regulatory activity in the future could reduce the availability, or increase the cost, including through taxation, of, electricity in the geographic locations in which our operating facilities are located, or could otherwise adversely impact our business. If we are forced to reduce our operations due to the availability or cost of electrical power, or restrictions on bitcoin mining activities, this will have an adverse effect on our business, prospects, financial condition and operating results.

Furthermore, in the future, foreign governments may decide to subsidize or in some other way support certain large-scale bitcoin mining projects, thus adding hashrate to the overall network. Such circumstances could have a material adverse effect on the amount of bitcoin that we may be able to mine as well as the value of bitcoin and, consequently, our business, prospects, financial condition and operating results.

We cannot be certain as to how future regulatory developments will impact the treatment of bitcoin under the law, and ongoing and future regulation and regulatory actions could significantly restrict or eliminate the market for or uses of bitcoin and materially and adversely impact our business. If we fail to comply with such additional regulatory and registration requirements, we may seek to cease certain of our operations or be subjected to fines, penalties and other governmental action. Such circumstances could have a material adverse effect on our ability to continue as a going concern or to pursue our business model at all, which could have a material adverse effect on our business, prospects or operations and potentially the value of any digital assets we hold or expect to acquire for our own account.

If we were deemed an "investment company" under the Investment Company Act of 1940, as amended (the "1940 Act"), applicable restrictions could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business.

An issuer will generally be deemed to be an "investment company" for purposes of the 1940 Act if:

- it is an "orthodox" investment company because it is or holds itself out as being engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting or trading in securities; or

- it is an inadvertent investment company because, absent an applicable exemption, it owns or proposes to acquire "investment securities" having a value exceeding 40% of the value of its total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis.

We believe that we are not and will not be primarily engaged in the business of investing, reinvesting or trading in securities, and we do not hold ourselves out as being engaged in those activities. We intend to hold ourselves out as a cryptocurrency mining business, specializing in bitcoin. Accordingly, we do not believe that we are an "orthodox" investment company as described in the first bullet point above.

If certain cryptocurrencies, including bitcoin, were to be deemed securities, and consequently, investment securities by the SEC, we intend to continue to operate our business in a manner such that we would not be deemed an inadvertent investment company. However, it is possible that we would be deemed an inadvertent investment company in such event, despite our intention not to operate as an investment company.

If we were to be deemed an inadvertent investment company, we may seek to rely on Rule 3a-2 under the 1940 Act, which allows an inadvertent investment company a grace period of one year from the earlier of (a) the date on which the issuer owns securities and/or cash having a value exceeding 50% of the issuer's total assets on either a consolidated or unconsolidated basis or (b) the date on which the issuer owns or proposes to acquire investment securities having a value exceeding 40% of the value of such issuer's total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis. We are putting in place policies that we expect will work to keep the investment securities held by us at less than 40% of our total assets, which may include acquiring assets with our cash, liquidating our investment securities or seeking no-action relief or exemptive relief from the SEC if we are unable to acquire sufficient assets or liquidate sufficient investment securities in a timely manner. As Rule 3a-2 is available to an issuer no more than once every three years, and assuming no other exclusion were available to us, we would have to keep within the 40% limit for at least three years after we cease being an inadvertent investment company. This may limit our ability to make certain investments or enter into joint ventures that could otherwise have a positive impact on our earnings. In any event, we do not intend to become an investment company engaged in the business of investing and trading securities.

Finally, we believe we are not an investment company under Section 3(b)(1) of the 1940 Act because we are primarily engaged in a non-investment company business.

The 1940 Act and the rules thereunder contain detailed parameters for the organization and operations of investment companies. Among other things, the 1940 Act and the rules thereunder limit or prohibit transactions with affiliates, impose limitations on the issuance of debt and equity securities, prohibit the issuance of stock options, and impose certain governance requirements. We intend to continue to conduct our operations so that we will not be deemed to be an investment company under the 1940 Act. However, if anything were to happen that would cause us to be deemed to be an investment company under the 1940 Act, requirements imposed by the 1940 Act, including limitations on our capital structure, ability to transact business with affiliates and ability to compensate key employees, could make it impractical for us to continue our business as currently conducted, impair the agreements and arrangements between and among us and our senior management team and materially and adversely affect our business, financial condition and results of operations.

If regulatory changes or interpretations of our activities require our registration as a money services business ("MSB") under the regulations promulgated by FinCEN under the authority of the U.S. Bank Secrecy Act, or otherwise under state laws, we may incur significant compliance costs, which could be substantial or cost- prohibitive. If we become subject to these regulations, our costs in complying with them may have a material negative effect on our business and results of operations.

FinCEN regulates providers of certain services with respect to "convertible virtual currency," including bitcoin. Businesses engaged in the transfer of convertible virtual currencies are subject to registration and licensure requirements at the U.S. federal level and also under U.S. state laws. While FinCEN has issued guidance that cryptocurrency mining, without engagement in other activities, does not require registration and licensure with FinCEN, this could be subject to change as FinCEN and other regulatory agencies continue their scrutiny of the Bitcoin network and digital assets generally. To the extent that our business activities cause us to be deemed a "money services business" under the regulations promulgated by FinCEN under the authority of the BSA, we may be required to comply with FinCEN regulations, including those that would mandate us to implement anti-money laundering programs, make certain reports to FinCEN and maintain certain records.

To the extent that our activities would cause us to be deemed a "money transmitter" or equivalent designation under state law in any state in which we may operate, we may be required to seek a license or otherwise register with a state regulator and comply with state regulations that may include the implementation of anti-money laundering programs, including implementing a know-your-counterparty program and transaction monitoring, maintenance of certain records and other operational requirements.

Such additional federal or state regulatory obligations may cause us to incur extraordinary expenses. Furthermore, we may not be capable of complying with certain federal or state regulatory obligations applicable to "money services businesses" and "money transmitters", such as monitoring transactions and blocking transactions, because of the nature of the Bitcoin blockchain. If it is deemed to be subject to and determine not to comply with such additional regulatory and registration requirements, we may act to dissolve and liquidate.

The application of the Commodity Exchange Act and the regulations promulgated thereunder by the U.S. Commodity Futures Trading Commission to our business is unclear and is subject to change in a manner that is difficult to predict. To the extent we are deemed to be or subsequently become subject to regulation by the U.S. Commodity Futures Trading Commission in connection with our business activities, we may incur additional regulatory obligations and compliance costs, which may be significant.

The CFTC has stated, and judicial decisions involving CFTC enforcement actions have confirmed, that bitcoin and other digital assets fall within the definition of a "commodity" under the U.S. Commodities Exchange Act of 1936, as amended (the "CEA"), and the regulations promulgated by the CFTC thereunder ("CFTC Rules"). As a result, the CFTC has general enforcement authority to police against manipulation and fraud in the spot markets for bitcoin and other digital assets. From time to time, manipulation, fraud and other forms of improper trading by other participants involved in the markets for bitcoin and other digital assets have resulted in, and may in the future result in, CFTC investigations, inquiries, enforcement action, and similar actions by other regulators, government agencies and civil litigation. Such investigations, inquiries, enforcement actions and litigation may cause negative publicity for bitcoin and other digital assets, which could adversely impact mining profitability.

In addition to the CFTC's general enforcement authority to police against manipulation and fraud in spot markets for bitcoin and other digital assets, the CFTC has regulatory and supervisory authority with respect to commodity futures, options, and/or swaps ("Commodity Interests") and certain transactions in commodities offered to retail purchasers on a leveraged, margined, or financed basis. Although we do not currently engage in such transactions, changes in our activities, the CEA, CFTC Rules, or the interpretations and guidance of the CFTC may subject us to additional regulatory requirements, licenses and approvals which could result in significant increased compliance and operational costs.

Furthermore, trusts, syndicates and other collective investment vehicles operated for the purpose of trading in Commodity Interests may be subject to regulation and oversight by the CFTC and the National Futures Association ("NFA") as "commodity pools." If our mining activities or transactions in bitcoin and other digital assets were deemed by the CFTC to involve Commodity Interests and the operation of a commodity pool for the Company's shareholders, we could be subject to regulation as a commodity pool operator and required to register as such. Such additional registrations may result in increased expenses, thereby materially and adversely impacting an investment in our ordinary shares. If we determine it is not practicable to comply with such additional regulatory and registration requirements, we may seek to cease certain of our operations. Any such action may adversely affect an investment in our business.

While we are not aware of any provision of the CEA or CFTC rules currently applicable to the mining of bitcoin and other digital assets, this is subject to change. We cannot be certain how future changes in legislation, regulatory developments, or changes in CFTC interpretations and policy may impact the treatment of digital assets and the mining of digital assets. Any resulting requirements that apply to or relate to our mining activities or our transactions in bitcoin and digital assets may cause us to incur additional extraordinary, non-recurring expenses, thereby materially and adversely impacting an investment in our ordinary shares.

Changing environmental regulatory and legislative developments may materially adversely affect our brand, reputation, business, results of operations and financial position.

A number of governments or governmental bodies have introduced or are contemplating environmental and energy legislative and regulatory changes in response to the increasing focus on power consumption required to operate large-scale data centers. A changing legislative environment could create economic and regulatory uncertainty for our business because the industries in which we operate, bitcoin mining and HPC, with their high energy demand, could become targets for future environmental and energy regulations. See "*—Risks Related to Our Business, Industry and Operations—* "*Bitcoin mining activities are energy-intensive, which may restrict the geographic locations of miners and have a negative environmental impact. Government regulators may potentially restrict the ability of electricity suppliers to provide electricity to mining operations, such as ours, increase taxes on the purchase of electricity used to mine bitcoin, or even fully or partially ban mining operations*."

The trend of increased environmental regulation is not linear and can fluctuate depending on the administration and jurisdiction, even within the same county. For example, although the Trump Administration initially withdrew the U.S. from the Paris Agreement in November 2020, the U.S. reentered the Paris Agreement in February 2021 under the Biden Administration, but the Trump Administration again withdrew from the Paris Agreement on January 20, 2025. Though we are closely following developments in this area and changes in the regulatory landscape in the United States, we cannot predict with precision or quantify how or when challenges may arise and ultimately impact our business.

Legislation and increased regulation regarding climate change could impose significant costs on us and our suppliers, including costs related to increased energy requirements, capital equipment, environmental monitoring and reporting, costs to purchase renewable energy credits or allowances, and other costs to comply with such regulations. Specifically, imposition of a tax or other regulatory fee in jurisdictions where we operate or on electricity that we purchase could result in substantially higher energy costs, and due to the significant amount of electrical power required to operate bitcoin mining machines, could in turn put our facilities at a competitive disadvantage. Any future climate change regulations could also negatively affect our ability to compete with companies situated in areas not subject to such limitations.

Given the political significance and uncertainty around the impact of climate change and how it should be addressed, we cannot predict how legislation and regulation will affect our financial condition, operating performance and ability to compete. Furthermore, even without such regulation, increasing awareness of climate change and any negative publicity in the global marketplace about potential impacts on climate change by us or other companies in our industry could harm our reputation. Any of the foregoing could have a material adverse effect on our financial position, prospects, results of operations and cash flows.

Our interactions with a blockchain may expose us to SDN or blocked persons or cause us to violate provisions of law that did not contemplate distribute ledger technology.

The Office of Financial Assets Control of the U.S. Department of Treasury ("OFAC") requires us to comply with its sanction program and not conduct business with persons named on its specially designated nationals ("SDN") list. However, because of the pseudonymous nature of blockchain transactions, we may inadvertently and without our knowledge engage in transactions with persons named on OFAC's SDN list. Our internal policies prohibit any transactions with such SDN individuals, but we may not be adequately capable of determining the ultimate identity of the individual with whom we transact with respect to selling digital assets. In the future, OFAC or another regulator, may require us to screen transactions for OFAC addresses or other bad actors before including such transactions in a block, which may increase our compliance costs, decrease our anticipated transaction fees and lead to decreased traffic on our network. We are unable to predict the nature or extent of new and proposed rules, legislation and regulation affecting the cryptocurrency industry, or the potential impact of the use of cryptocurrencies by SDN or other blocked or sanctioned persons, which could have material adverse effects on our business and our industry more broadly.

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our financial condition and results of operations.

We are subject to income taxes in the United States, and our tax liabilities will be subject to the allocation of expenses in differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- tax effects of stock-based compensation;
- costs related to intercompany restructurings;
- changes in tax laws, regulations or interpretations thereof; or
- changes in tax rates in jurisdictions where we operate

In addition, we may be subject to audits of our income, sales and other transaction taxes by taxing authorities. Outcomes from these audits could have an adverse effect on our financial condition and results of operations.

Future developments regarding the treatment of digital assets for U.S. federal income and applicable state, local and non-U.S. tax purposes could adversely impact our business.

Due to the new and evolving nature of digital assets and the absence of comprehensive legal guidance with respect to digital assets and related transactions, many significant aspects of the U.S. federal income and applicable state, local and non-U.S. tax treatment of transactions involving digital assets, such as the purchase and sale of bitcoin and the receipt of staking rewards and other digital asset incentives and rewards products, are uncertain, and it is unclear what guidance may be issued in the future with respect to the tax treatment of digital assets and related transactions.

Current IRS guidance indicates that for U.S. federal income tax purposes digital assets such as bitcoins should be treated and taxed as property, and that transactions involving the payment of bitcoins for goods and services should be treated in effect as barter transactions. The IRS has also released guidance to the effect that, under certain circumstances, hard forks of digital currencies are taxable events giving rise to taxable income and guidance with respect to the determination of the tax basis of digital currency. However, current IRS guidance does not address other significant aspects of the U.S. federal income tax treatment of digital assets and related transactions. Moreover, although current IRS guidance addresses the treatment of certain forks, there continues to be uncertainty with respect to the timing and amount of income inclusions for various crypto asset transactions, including, but not limited to, staking rewards and other crypto asset incentives and rewards products. While current IRS guidance creates a potential tax reporting requirement for any circumstance where the ownership of a bitcoin passes from one person to another, it preserves the right to apply capital gains treatment to those transactions, which is generally favorable for investors in bitcoin. In addition, the U.S. Department of Treasury has issued regulations regarding certain tax reporting requirements applicable to transactions involving digital assets.

There can be no assurance that the IRS will not alter its existing position with respect to digital assets in the future or that other state, local and non-U.S. taxing authorities or courts will follow the approach of the IRS with respect to the treatment of digital assets such as bitcoins for income tax and sales tax purposes. Any such alteration of existing guidance or issuance of new or different guidance may have negative consequences including the imposition of a greater tax burden on investors in bitcoin or imposing a greater cost on the acquisition and disposition of bitcoin, generally; in either case potentially having a negative effect on the trading price of bitcoin or otherwise negatively impacting our business. In addition, future technological and operational developments that may arise with respect to digital currencies may increase the uncertainty with respect to the treatment of digital currencies for U.S. federal income and applicable state, local and non-U.S. tax purposes.

Our ability to use certain tax attributes may be or become subject to limitation.

Generally, U.S. federal net operating losses ("NOLs") may be carried forward indefinitely and may offset up to 80% of taxable income (as calculated before taking the U.S. federal NOL carryforwards into account) in each year. However, our ability to use U.S. federal NOL carryforwards and certain other tax attributes to offset future taxable income may be limited. We currently have substantial U.S. federal NOL carryforwards and state tax attributes. Our ability to use these tax attributes to reduce future U.S. federal and state income tax obligations depends on many factors, including future taxable income, the timing of which is uncertain. In addition, our ability to use NOL carryforwards and other tax attributes may be subject to significant limitations under Section 382 of the Internal Revenue Code of 1986, as amended and corresponding provisions of state tax law.

Risks Related to Cryptocurrency

Our sources of revenue are dependent on bitcoin and the Bitcoin ecosystem, which can be highly volatile.

Our sources of revenue are dependent on bitcoin and the Bitcoin ecosystem. Due to the highly volatile nature of the cryptocurrency markets and the prices of cryptocurrency assets, and bitcoin specifically, our operating results may continue to fluctuate significantly from quarter to quarter in accordance with market sentiments and movements in the broader cryptocurrency ecosystem and in the Bitcoin ecosystem. Bitcoin prices depend on numerous market factors beyond our control and, accordingly, some underlying bitcoin price assumptions relied on by us may materially change and actual bitcoin prices may differ materially from those expected.

In particular, our operating results may continue to fluctuate as a result of a variety of factors, many of which are unpredictable and, in certain instances, outside of our control, including:

- market conditions across the broader blockchain ecosystem;
- investment and trading activities of highly active retail and institutional investors, cryptocurrency users, speculators and miners;
- increased competition from new and existing competitors, and potential lost opportunities due to the relative financial strength of other market participants;
- developments and innovations in bitcoin mining equipment, including ASIC chip designs;
- changes in consumer preferences and perceived value of digital assets, including due to evolving cryptographic algorithms and emerging trends in the technology securing blockchains;
- publicity and events relating to the blockchain ecosystem, including public perception of the impact of the blockchain ecosystem on the environment and geopolitical developments;
- the correlation between the prices of digital assets, including the potential that a crash in one digital asset or widespread defaults on one digital asset exchange or trading venue may cause a crash in the price of other digital assets, or a series of defaults by counterparties on digital asset exchanges or trading venues;
- fees and speed associated with processing bitcoin transactions;
- level of interest rates and inflation;

- changes in the legislative or regulatory environment, or actions by governments or regulators that impact monetary policies, fiat currency devaluations, trade restrictions, the digital assets industry generally, or mining operations specifically;
- difficulty obtaining hardware and related installation costs;
- access to cost-effective sources of electrical power;
- adverse legal proceedings or regulatory enforcement actions, judgments, settlements or other legal proceeding and enforcement-related costs;
- increases in operating expenses that we expect to incur to build-up and expand our operations and to remain competitive;
- system failure or outages, including with respect to our mining hardware, power supply and third-party networks;
- breaches of security or data privacy;
- loss of trust in the network due to a latent fault in the Bitcoin network;
- our ability to attract and retain talent;
- our ability to hedge risks related to our ownership of digital assets; and
- the introduction of new digital assets, leading to a decreased adoption of bitcoin.

As a result of these factors, it may be difficult for us to forecast growth trends accurately and our business and future prospects are difficult to evaluate, particularly in the short term. In view of the rapidly evolving nature of our business and the Bitcoin ecosystem, period-to-period comparisons of our operating results may not be meaningful, and you should not rely upon them as an indication of future performance. Quarterly and annual expenses reflected in our financial statements may be significantly different from historical or projected rates, and our operating results in one or more future quarters may fall below the expectations of securities analysts and investors.

The loss or destruction of our private keys to our digital wallets, causing a loss of some or all of our bitcoin assets.

Digital assets, such as cryptocurrencies, are stored in a so-called “digital wallet”, which may be accessed to exchange a holder’s digital assets, and is controllable by the processor of both the public key and the private key relating to this digital wallet in which the digital assets are held, both of which are unique. The blockchain publishes the public key relating to digital wallets in use when transactions are made on the network, but users need to safeguard the private keys relating to such digital wallets. If one or more of our private keys are lost, destroyed, or otherwise compromised, we may be unable to access our bitcoin held in the related digital wallet which will essentially be lost. If the private key is acquired by a third party, then this third party may be able to gain access to our bitcoin. Any loss of private keys relating to digital wallets used to store our bitcoin, whether by us or digital asset exchanges where we hold our bitcoin, could have a material adverse effect on our ability to continue as a going concern or could have a material adverse effect on our business, prospects, financial condition, and operating results.

We may temporarily store our bitcoin on digital asset trading platforms which could subject our bitcoin to the risk of loss or access, especially in light of previous failures of major market participants. Such failures may also result in a reduction in the price of bitcoin and other cryptocurrencies and can adversely affect an investment in us.

In connection with our treasury management processes, in preparing to sell bitcoin, we may temporarily store all or a portion of our bitcoin on various digital asset trading platforms which requires us to rely on the security protocols of these trading platforms to safeguard our bitcoin. No security system is perfect and trading platforms have been subject to hacks resulting in the loss of businesses’ and customers’ digital assets in the past. Such trading platforms may not be well capitalized and may not have adequate insurance necessary to cover any loss or may not compensate for loss where permitted under the laws of the relevant jurisdiction. In addition, malicious actors may be able to intercept our bitcoin when we transact in or otherwise transfer our bitcoin or while we are in the process of selling our bitcoin via such trading platforms. Digital asset trading platforms have been a target for malicious actors in the past, and given the growth in their size and their relatively unregulated nature, we believe these trading platforms may continue to be targets for malicious actors. An actual or perceived security breach or data security incident at the digital asset trading platforms with which we have accounts could harm our ability to operate, result in loss of our assets, damage our reputation and negatively affect the market perception of our effectiveness, all of which could adversely affect the value of our ordinary shares.

Furthermore, previous failures of key institutions in the cryptocurrency asset industry, such as the collapse of FTX in 2022, highlights the risk of systemic interconnectedness between major market participants and the effect it could have on the industry as a whole. If any such digital assets trading platform and exchange, on which we store our bitcoin, experiences similar or same issues and is, therefore, forced to file for Chapter 11, we will be exposed to significant loss of value of our bitcoin stored on such digital assets trading platform and exchange. See also "—*Risks Related to Our Business, Industry and Operations—We may face several risks due to disruptions in the digital asset markets, including but not limited to, financing risk, risk of increased losses or impairments in our investments or other assets, risks of legal proceedings and government investigations, and risks from price declines or price volatility of digital assets*."

Additionally, a perceived lack of stability in the digital asset exchange market and the closure or temporary shutdown of digital asset exchanges due to business failure, hackers or malware, government-mandated regulation, or fraud, may reduce confidence in digital asset networks and result in greater volatility in cryptocurrency values. These potential consequences of a digital asset exchange's failure could adversely affect an investment in us.

Incorrect or fraudulent cryptocurrency transactions may be irreversible.

Cryptocurrency transactions are irrevocable and stolen or incorrectly transferred cryptocurrencies may be irretrievable. As a result, any incorrectly executed or fraudulent cryptocurrency transactions could adversely affect our investments and assets.

Once a transaction has been verified and recorded in a block that is added to a blockchain, an incorrect transfer of a cryptocurrency or a theft thereof generally will not be reversible and we may not have sufficient recourse to recover our losses from any such transfer or theft. It is possible that, through computer or human error, or through theft or criminal action, our cryptocurrency rewards could be transferred in incorrect amounts or to unauthorized third parties, or to uncontrolled accounts.

It is possible that, through computer or human error, or through theft or criminal action, our bitcoin could be transferred from us in incorrect amounts or to unauthorized third parties. To the extent we are unable to seek a corrective transaction with such third party or are incapable of identifying the third party which has received our bitcoin through error or theft, we will be unable to revert or otherwise recover incorrectly transferred bitcoin. If we are unable to recover our losses or seek redress for such error or theft, such events could have a material adverse effect on our business, prospects, financial condition and operating results, including our ability to continue as a going concern.

Acceptance and widespread use of cryptocurrency, in general, and bitcoin, specifically, is uncertain.

Currently, there is a relatively limited use of any cryptocurrency in the retail and commercial marketplace, contributing to price volatility of cryptocurrencies. Price volatility undermines any cryptocurrency's role as a medium of exchange, as retailers are much less likely to accept it as a form of payment. Banks and other established financial institutions may refuse to process funds for cryptocurrency transactions, process wire transfers to or from cryptocurrency exchanges, cryptocurrency-related companies or service providers, or maintain accounts for persons or entities transacting in cryptocurrency. Furthermore, a significant portion of cryptocurrency demand, including demand for bitcoin, is generated by investors seeking a long-term store of value or speculators seeking to profit from the short- or long-term holding of the asset.

The relative lack of acceptance of cryptocurrencies in the retail and commercial marketplace, or a reduction of such use, limits the ability of end users to use them to pay for goods and services. Such lack of acceptance or decline in acceptances could have a material adverse effect on the value of bitcoin or any other cryptocurrencies, and consequently our business, prospects, financial condition and operating results.

Ownership of bitcoin is pseudonymous, and the market supply of accessible bitcoin is unknown. Individuals or entities with substantial holdings in bitcoin may engage in large-scale sales or distributions, either on non- market terms or in the ordinary course, which could disproportionately and negatively affect the cryptocurrency market, result in a reduction in the price of bitcoin and materially and adversely affect the price of our common stock.

There is no registry showing which individuals or entities own bitcoin or the quantity of bitcoin that is owned by any particular person or entity. It is possible, and in fact, reasonably likely, that a small group of early bitcoin adopters hold a significant proportion of the bitcoin that has been created to date. There are no regulations in place that would prevent a large holder of bitcoin from selling the bitcoin it holds. To the extent such large holders of bitcoin engage in large-scale sales or distributions, either on non-market terms or in the ordinary course, it could negatively affect the cryptocurrency market and result in a reduction in the price of bitcoin. This, in turn, could materially and adversely affect the price of our stock, our business, prospects, financial condition, and operating results.

The open-source structure of the Bitcoin network protocol means that the contributors to the protocol are generally not directly compensated for their contributions in maintaining and developing the protocol.

The Bitcoin network operates based on an open-source protocol, not represented by an official organization or authority. Instead it is maintained by a small group of core contributors, largely on the Bitcoin Core project on GitHub.com. These individuals can propose refinements or improvements to the Bitcoin network's source code through one or more software upgrades that alter the protocols and software that govern the Bitcoin network and the properties of bitcoin, including the irreversibility of transactions and limitations on the mining of new bitcoin. Proposals for upgrades and discussions relating thereto take place on online forums.

As the Bitcoin network protocol is not sold and its use does not generate revenues for contributors, contributors are generally not compensated for maintaining and updating the Bitcoin network protocol. Although the MIT Media Lab's Digital Currency Initiative provides funding for individuals who perform leadership roles in the bitcoin community (known as "lead maintainers"), this type of financial incentive is not typical. The lack of guaranteed financial incentive for contributors to maintain or develop the Bitcoin network and the lack of guaranteed resources to adequately address emerging issues with the Bitcoin network may reduce incentives to address the issues adequately or in a timely manner.

There can be no guarantee that developer support will continue or be sufficient in the future. Additionally, some development and developers are funded by companies whose interests may be at odds with other participants in the network or with investors' interests. To the extent that material issues arise with the Bitcoin network protocol and the core developers and open-source contributors are unable or unwilling to address the issues adequately or in a timely manner, the Bitcoin network and consequently our business, prospects, financial condition and operating results could be adversely affected.

Significant contributors to a network for any particular digital asset, such as bitcoin, could propose amendments to the respective network's protocols and software that, if accepted and authorized by such network, could adversely affect our business.

If a developer or group of developers proposes a modification to the Bitcoin network that is not accepted by a majority of miners and users, but that is nonetheless accepted by a substantial plurality of miners and users, two or more competing and incompatible blockchain implementations could result, with one running the pre-modification software program and the other running the modified version (i.e., a second "Bitcoin network").

This is known as a "hard fork." Such a hard fork in the blockchain typically would be addressed by community-led efforts to reunite the forked blockchains, and several prior forks have been resolved successfully. However, a "hard fork" in the blockchain could materially and adversely affect the perceived value of bitcoin as reflected on one or both incompatible blockchains. Additionally, a "hard fork" will decrease the number of users and miners available to each fork of the blockchain as the users and miners on each fork blockchain will not be accessible to the other blockchain and, consequently, there will be fewer block rewards and transaction fees may decline in value. Any of the above could have a material adverse effect on our business, prospects, financial condition, and operating results.

In August 2017, bitcoin "forked" into bitcoin and a new digital asset, Bitcoin Cash, as a result of a several-year dispute over how to increase the rate of transactions that the Bitcoin network can process. Since then, bitcoin has been forked numerous times to launch new digital assets, such as Bitcoin Gold, Bitcoin Silver and Bitcoin Diamond. These forks effectively result in a new blockchain being created with a shared history, and new path forward, and they have a different "proof of work" algorithm and other technical changes.

Bitcoin Cash and the other similar digital assets may or may not have value in the long run and may affect the price of bitcoin if interest is shifted away from bitcoin to these newly created digital assets. The value of bitcoin after the creation of a fork is subject to many factors including the value of the fork product, market reaction to the creation of the fork product, and the occurrence of forks in the future.

Furthermore, a hard fork can introduce new security risks. For example, when Ethereum and Ethereum Classic split in July 2016, replay attacks, in which transactions from one network were rebroadcast to nefarious effect on the other network, plagued trading venues through at least October 2016. An exchange announced in July 2016 that it had lost

40,000 Ether from the Ethereum Classic network, which was worth about $100,000 at that time, as a result of replay attacks. Another possible result of a hard fork is an inherent decrease in the level of security.

After a hard fork, it may become easier for an individual miner or mining pool's hashing power to exceed 50% of the processing power of the Bitcoin network, thereby making the network more susceptible to attack.

A fork could also be introduced by an unintentional, unanticipated software flaw in the multiple versions of otherwise compatible software that users run. It is possible, however, that a substantial number of users and miners could adopt an incompatible version of bitcoin while resisting community-led efforts to merge the two chains. This would result in a permanent fork, as in the case of Ethereum and Ethereum Classic, as detailed above.

If a fork occurs on a digital asset network which we hold or are mining, such as bitcoin, it may have a negative effect on the value of the digital asset and could have a material adverse effect on our business, prospects, financial condition, and operating results.

The development and acceptance of cryptographic and algorithmic protocols governing the issuance of and transactions in cryptocurrencies is subject to a variety of factors that are difficult to evaluate.

Digital assets, such as bitcoin, that may be used, among other things, to buy and sell goods and services are a new and rapidly evolving industry of which the digital asset networks are prominent, but not unique, parts. The growth of the digital asset industry, in general, and the digital asset networks, in particular, are subject to a high degree of uncertainty. The factors affecting the further development of the digital asset industry, as well as the digital asset networks, include:

- worldwide growth in the adoption and use of bitcoin and other digital assets;
- government and quasi-government regulation of bitcoin and other digital assets and their use, or restrictions on or regulation of access to and operation of the digital asset network or similar digital assets systems;
- the maintenance and development of the open-source software protocol of the Bitcoin network and other digital asset block-chains;
- changes in consumer demographics and public tastes and preferences;
- the availability and popularity of other forms or methods of buying and selling goods and services, including new means of using fiat currencies;
- general economic conditions and the regulatory environment relating to digital assets; and
- the impact of regulators focusing on digital assets and digital securities and the costs associated with such regulatory oversight.

The outcome of these factors could have negative effects on our ability to pursue our business strategy, which could have a material adverse effect on our business, prospects, financial condition, and operating results as well as potentially negative effect on the value of bitcoin or any other cryptocurrencies we may potentially acquire or hold in the future.

Banks and financial institutions may not provide banking services, or may cut off services, to businesses that provide cryptocurrency-related services or that accept cryptocurrencies as payment.

A number of companies that provide bitcoin or other cryptocurrency-related services have been unable to find banks or financial institutions that are willing to provide them with bank accounts and other services. This risk may be further exacerbated in the current environment in light of several high-profile bankruptcies in the digital assets industry, as well as recent bank failures, which have disrupted investor confidence in cryptocurrencies and led to a rapid escalation of oversight of the digital asset industry. For further details, see "*—Risks Related to Our Business, Industry and Operations—The further development and acceptance of digital asset networks and other digital assets, which represent a new and rapidly changing industry, are subject to a variety of factors that are difficult to evaluate. The slowing or stopping of the development or acceptance of digital asset systems may adversely affect an investment in us*." Established banks and financial institutions may be reluctant to provide products and services to the digital asset industry participants due to heightened concerns about the ability to comply with the heightened risks and regulatory scrutiny of banking institutions that provide such products or services.

A number of companies and individuals or businesses associated with cryptocurrencies may have had and may continue to have their existing bank accounts closed or services discontinued with financial institutions. We also may be unable to maintain these services for our business.

The difficulty that many businesses that provide bitcoin or other cryptocurrency-related services have and may continue to have in finding banks and financial institutions willing to provide them services may decrease the usefulness of cryptocurrencies as a payment system and harm public perception of cryptocurrencies. Similarly, the usefulness of cryptocurrencies as a payment system and the public perception of cryptocurrencies could be damaged if banks or financial institutions were to close the accounts of businesses providing bitcoin or other cryptocurrency-related services. This could occur as a result of compliance risk, cost, government regulation or public pressure. The risk applies to securities firms, clearance and settlement firms, national stock and commodities exchanges, the over-the-counter market and the Depository Trust Company. Such factors would have a material adverse effect on our business, prospects, financial condition, and operating results.

Cryptocurrencies, including bitcoin, face significant scaling obstacles that can lead to high fees or slow transaction settlement times and any mechanisms of increasing the scale of cryptocurrency settlement may significantly alter the competitive dynamics in the market.

Cryptocurrencies face significant scaling obstacles that can lead to high fees or slow transaction settlement times, and attempts to increase the volume of transactions may not be effective. Scaling cryptocurrencies, and particularly bitcoin, is essential to the widespread acceptance of cryptocurrencies as a means of payment, which is necessary to the growth and development of our business.

Many cryptocurrency networks face significant scaling challenges. For example, cryptocurrencies are limited with respect to how many transactions can occur per second. In this respect, bitcoin may be particularly affected as it relies on the "proof of work" validation, which due to its inherent characteristics may be particularly hard to scale to allow simultaneous processing of multiple daily transactions by users. Participants in the cryptocurrency ecosystem debate potential approaches to increasing the average number of transactions per second that the network can handle and have implemented mechanisms or are researching ways to increase scale, such as "sharding", which is a term for a horizontal partition of data in a database or search engine, which would not require every single transaction to be included in every single miner's or validator's block.

There is no guarantee that any of the mechanisms in place or being explored for increasing the scale of settlement of cryptocurrency transactions will be effective, how long they will take to become effective or whether such mechanisms will be effective for all cryptocurrencies. If the Bitcoin network is unable to address scaling issues, the price of bitcoin may decrease as users seek alternative networks. There is also a risk that any mechanisms of increasing the scale of cryptocurrency settlement may significantly alter the competitive dynamics in the cryptocurrency market and may adversely affect the value of bitcoin and the price of our common stock. Alternatively, if bitcoin does make changes to its protocol to address scaling issues, these changes may render our business model obsolete. Any of the foregoing could have a material adverse effect on our business, prospects, financial condition, and operating results.

The development and acceptance of competing blockchain platforms or technologies may cause consumers to use alternative distributed ledgers or other alternatives.

The development and acceptance of competing blockchain platforms or technologies may cause consumers to use alternative distributed ledgers or an alternative to distributed ledgers altogether. Our business intends to rely on presently existent digital ledgers and blockchains and we could face difficulty adapting to emergent digital ledgers, blockchains, or alternatives thereto. This may adversely affect us and our exposure to various blockchain technologies and prevent us from realizing the anticipated profits from our investments. Such circumstances could have a material adverse effect on our business, prospects, financial condition, and operating results and potentially the value of any bitcoin or other cryptocurrencies we may potentially acquire or hold in the future.

If a malicious actor or botnet obtains control in excess of 50% of the processing power active on any digital asset network, including the Bitcoin network, it is possible that such actor or botnet could manipulate the blockchain in a manner that may adversely affect our business, prospects, financial condition, and operating results.

If a malicious actor, such as a rogue mining pool or botnet (a volunteer or hacked collection of computers controlled by networked software coordinating the actions of the computers), obtains a majority of the processing power dedicated to mining on any digital asset network (the so-called "double-spend" or "51%" attacks), including the Bitcoin network, it may be able to alter the blockchain by constructing alternate blocks if it is able to solve for such blocks faster than the remainder of the miners on the blockchain can add valid blocks. In such alternate blocks, the malicious actor or botnet could control, exclude or modify the ordering of transactions, though it could not generate new digital assets or transactions using such control.

Using alternate blocks, the malicious actor could “double-spend” its own digital assets (i.e., spend the same digital assets in more than one transaction) and prevent the confirmation of other users’ transactions for so long as it maintains control. To the extent that such malicious actor or botnet does not yield its majority control of the processing power or the digital asset community does not reject the fraudulent blocks as malicious, reversing any changes made to the blockchain may not be possible.

The approach towards and possible crossing of the 50% threshold indicate a greater risk that a single mining pool could exert authority over the validation of digital asset transactions. To the extent that the cryptocurrency ecosystem does not act to ensure greater decentralization of cryptocurrency mining processing power, the feasibility of a malicious actor obtaining in excess of 50% of the processing power on any digital asset network (e.g., through control of a large mining pool or through hacking such a mining pool) will increase, which could have a material adverse effect on our business, prospects, financial condition, and operating results.

The price of cryptocurrencies may be affected by the sale of such cryptocurrencies by other vehicles investing in cryptocurrencies or tracking cryptocurrency markets.

The global market for cryptocurrency is characterized by supply constraints that differ from those present in the markets for commodities or other assets such as gold and silver. The mathematical protocols under which certain cryptocurrencies are mined permit the creation of a limited, predetermined amount of currency, while others have no limit established on total supply. To the extent that other vehicles investing in cryptocurrencies or tracking cryptocurrency markets form and come to represent a significant proportion of the demand for cryptocurrencies, large redemptions of the securities of those vehicles and the subsequent sale of cryptocurrencies by such vehicles could negatively affect cryptocurrency prices and therefore affect the value of the cryptocurrency inventory we hold. Such events could have a material adverse effect on our business, prospects, financial condition, and operating results.

We may face risks of Internet disruptions, which could have a material adverse effect on the price of cryptocurrencies.

A disruption of the Internet may affect the use of cryptocurrencies and subsequently the value of our securities. Generally, bitcoin mining is dependent upon the Internet. A significant disruption in Internet connectivity could disrupt the Bitcoin network operations, or our ability to mine bitcoin, until the disruption is resolved, and could have a material adverse effect on the price of cryptocurrencies and, bitcoin specifically, and consequently, our business, prospects, financial condition, and operating results.

Risks Related to Bitcoin Mining

Bitcoin is the only cryptocurrency that we currently mine and, thus, our success depends in large part upon the value of bitcoin; the value of bitcoin and other cryptocurrencies may be subject to pricing risk and has historically been subject to wide swings.

Our operating results depend in large part upon the value of bitcoin because it is the only cryptocurrency that we mine. Specifically, our revenues from our bitcoin mining operations are based upon two factors: (1) the number of block rewards that we successfully mine and (2) the value of bitcoin.

If other cryptocurrencies were to achieve acceptance at the expense of bitcoin, causing the value of bitcoin to decline, or if bitcoin were to switch its “proof of work” algorithm from SHA-256 to a “proof of stake” validation method or another algorithm for which the miners we use are not specialized, or the value of bitcoin were to decline for other reasons, particularly if such decline were significant or over an extended period of time, our business, prospects, financial condition, and operating results would be adversely affected.

Bitcoin and other cryptocurrency market prices have historically been volatile. Our business may be adversely affected if the markets for bitcoin deteriorate or if its prices decline, including as a result of the following factors:

- the reduction in mining rewards of bitcoin, including block reward halving events, which are events that occur after a specific period of time which reduces the block reward earned by miners;

- disruptions, hacks, "forks", 51% attacks, or other similar incidents affecting the Bitcoin blockchain network;
- hard "forks" resulting in the creation of and divergence into multiple separate networks;
- informal governance led by bitcoin's core developers that lead to revisions to the underlying source code or inactions that prevent network scaling, and which evolve over time largely based on self- determined participation, which may result in new changes or updates that affect their speed, security, usability, or value;
- the ability for Bitcoin blockchain network to resolve significant scaling challenges and increase the volume and speed of transactions;
- the ability to attract and retain developers and customers to use bitcoin for payment, store of value, unit of accounting, and other intended uses;
- transaction congestion and fees associated with processing transactions on the Bitcoin network;
- the identification of Satoshi Nakamoto, the pseudonymous person or persons who developed bitcoin, or the transfer of Satoshi's bitcoin assets;
- negative public perception of bitcoin or other cryptocurrencies or their reputation within the fintech influencer community or the general publicity around them;
- development in mathematics, technology, including in digital computing, algebraic geometry, and quantum computing that could result in the cryptography being used by bitcoin becoming insecure or ineffective; and
- laws and regulations affecting the Bitcoin network or access to this network, including a determination that bitcoin constitutes a security or other regulated financial instrument under the laws of any jurisdiction.

Furthermore, bitcoin pricing may be the result of, and may continue to result in, speculation regarding future appreciation in the value of cryptocurrencies, inflating and making their market prices more volatile or creating "bubble" type risks for bitcoin. Some market observers have asserted that the bitcoin market is experiencing a "bubble" and have predicted that, in time, the value of bitcoin will fall to a fraction of its current value, or even to zero. Bitcoin has not been in existence long enough for market participants to assess these predictions with any precision, but if these observers are even partially correct, it could have a material adverse effect on our business, prospects, financial condition, and operating results.

Rewards for successful production of bitcoin are negatively impacted by the bitcoin halving protocol expected every four years, and the supply of bitcoin is limited.

The supply of bitcoin is limited and, once the 21 million bitcoin have been "unearthed", the network will stop producing more. Currently, there are approximately 19.6 million, or approximately 93% of the total supply of, bitcoin in circulation. The halving is an event within the Bitcoin protocol where the bitcoin reward provided upon mining a block is reduced by 50%. Halvings are scheduled to occur once every 210,000 blocks, or roughly every four years. The latest halving occurred in April 2024, which revised the block reward to 3.125 bitcoin and the next halving expected in April 2028.

Halving reduces the number of new bitcoin being generated by the network. While the effect is to slow the pace of the release of new coins, it has no impact on the quantity of total bitcoin already outstanding. As a result, the price of bitcoin could rise or fall based on overall investor and consumer demand. Given a stable network hashrate, should the price of bitcoin remain unchanged after the next halving, our revenue related to mining new coins would be reduced by 50%, with a significant impact on profit.

Furthermore, as the number of bitcoin remaining to be mined decreases, the processing power required to record new blocks on the blockchain may increase. Eventually the processing power required to add a block to the blockchain may exceed the value of the reward for adding a block. Additionally, at some point, there will be no new bitcoin to mine. Once the processing power required to add a block to the blockchain exceeds the value of the reward for adding a block, we may focus on other strategic initiatives, which may be complimentary to our mining operations. For further details, see

"*Business—Our Strategy—Commitment to growth, innovation and retaining flexibility to consider strategically adjacent opportunities to expand our business model.*"

Risks Related to High-Performance Compute ("HPC")

Any potential use of emerging technologies like artificial intelligence, machine learning and generative artificial intelligence could lead to unintended consequences and result in reputational harm and litigation.

We continue to evaluate emerging technologies like artificial intelligence, machine learning and generative artificial intelligence for incorporation into our business. State and federal regulations relating to these emerging technologies are quickly evolving, and, should we adopt such technologies, we may require significant resources to maintain our business practices while seeking to comply with U.S. laws. Any failure to accurately identify and address our responsibilities and liabilities in this new environment could negatively affect any solutions we develop incorporating such technologies and could subject us to reputational harm, regulatory action or litigation, any of which may harm our financial condition and operating results. These same risks apply to our use of third-party service providers who are implementing these tools into the products or services they provide to us.

Our increased focus on developing data centers for HPC hosting may not become profitable in the future and may result in adverse consequences to our business, results of operations and financial condition.

We are subject to risks and uncertainties of starting a new business, including the risk that we may never further develop or complete development of our proposed HPC hosting business. Although our construction and operations teams have prior experience in the HPC field and we believe focusing more on developing data centers for HPC companies will be beneficial to our stockholders, the HPC hosting business is novel and rapidly evolving. We have limited experience in developing an HPC hosting business and we have not previously constructed and operated an HPC data center; thus, there is no guarantee that we will successfully implement our development plans or that this business will become profitable in the future.

Furthermore, we may experience difficulties with infrastructure development or modification, engineering, or design, which could result in excessive capital expenditures and significant delays. Our efforts to construct and operate HPC data centers may prove more expensive than we currently anticipate and may not result in increased revenue or profitability in the short term or at all.

We have limited experience in developing an HPC hosting business and we have not previously constructed and operated an HPC data center, which may impact our efforts and our ability to accurately assess our prospects. The likelihood of our success must be considered in light of the expenses, difficulties, complications, problems and delays frequently encountered in connection with the expansion of a business and operating a business in an industry that is novel, competitive and rapidly evolving.

Our focus on developing and offering HPC hosting may also disrupt our bitcoin mining business, divert our resources, and require significant management attention that would otherwise be available for overseeing and developing our existing bitcoin mining operations business. There can be no assurance that we will ever operate an HPC hosting business profitably and it may be possible that a continued focus on operating bitcoin mining data centers would have been more profitable.

Constructing data centers for HPC hosting requires significantly higher capital expenditures compared to bitcoin mining data centers, and we may be unable to secure capital or financing for our construction efforts to develop data centers for HPC hosting.

Constructing data center facilities for HPC hosting requires significant capital expenditures, in particular when compared to capital expenditures for bitcoin mining data center facilities. If we are not able to secure capital or financing to fund our construction efforts with respect to HPC hosting facilities, the completion of such projects may be delayed and our ability to collect any potential renal revenue or to otherwise monetize such facilities may be compromised, which could have an adverse effect on our expansion strategy and our ability to generate significant or any revenue from an HPC hosting business.

Regulatory developments surrounding HPC may negatively impact our efforts to expand into HPC hosting.

The regulatory landscape surrounding HPC, artificial intelligence ("AI") and bitcoin mining operations is evolving rapidly, and we anticipate increased scrutiny and potential regulation in the near and long term. These developments may affect our business and operations in ways that are difficult to predict.

There are growing concerns about the ethical implications and potential misuse of the growing AI technologies and the AI landscape is facing challenges and uncertainties. The development of more advanced AI systems, such as large language models and generative AI, has raised concerns about potential misuse, bias, and the displacement of human workers. Governments and regulatory bodies are considering measures to ensure responsible development and deployment of AI systems, including guidelines for transparency, accountability, and fairness. In recent years, crypto mining has received increased attention from regulators with respect to technical and financial aspects of this industry. We expect that regulatory efforts in this area will continue to evolve and potentially affect our business.

As a company operating at the intersection of HPC, AI, and bitcoin mining, we are committed to maintaining a proactive and adaptive approach to regulatory compliance. We continue to monitor legislative and regulatory developments closely and engage in dialogue with relevant stakeholders to ensure our business practices align with the evolving legal and regulatory framework. However, there can be no assurance that our business will not be adversely impacted by future developments.

It may take significant time and expenditure to develop an HPC hosting business through continued development at our existing and planned sites, and our efforts may not be successful.

The continued development of our existing and planned facilities is subject to various factors beyond our control. There may be difficulties in integrating new equipment into existing infrastructure, constraints on our ability to connect to or procure the expected electricity supply capacity at our facilities, defects in design, construction or installed equipment, diversion of management resources, insufficient funding or other resource constraints. Actual costs for development may exceed our planned budget. In particular, our business strategy includes expanding and diversifying our revenue sources into a new market, HPC hosting. Our ability to execute on our HPC hosting business strategy could be challenging with our current data center designs and may require retrofits, alterations or other custom designed solutions to enable the operating environment to function for an HPC tenant, which may be cost prohibitive, if the operating environment or site is capable of doing so at all. Such alterations may require close collaboration with cooling experts, engineers and specialized vendors to ensure thermal management is aligned with specific hardware requirements.

We intend to expand by acquiring and developing additional sites, taking into account a number of important characteristics such as availability of renewable energy, electrical infrastructure and related costs, geographic location and the local regulatory environment. We may have difficulty finding sites that satisfy our requirements at a commercially viable price or our timing requirements. Furthermore, there may be significant competition for suitable data center sites, and government regulators, including local permitting officials, may restrict our ability to set up data center operations in certain locations.

Leveraging sites that we have contractually secured may ultimately fail to complete due to factors beyond our control. In addition, the ability to secure connection agreements to access power sources and permits, approvals and/or licenses to construct and operate our facilities could be delayed in regulatory processes, may not be successful or may be cost prohibitive. Actions by government regulators, or the issuance of any new regulations, that restrict our ability to operate HPC hosting or bitcoin mining data centers may reduce the availability and/or increase the cost of electricity in the geographic locations in which our operating facilities are located, or could otherwise adversely impact our business.

Development and construction delays, cost overruns, changes in market circumstances, environmental or community constraints, an inability to continue to find suitable data center locations as part of our expansion and other factors may adversely affect our operations, expansion plans, financial position and financial performance. We will continue to review our expansion plans in light of evolving market conditions. Any such delays, and any failure to increase our total data center or hashrate capacity in the future, could adversely impact our business, financial condition, cash flows and results of operations.

Risks Related to our Common Stock and Warrants

We have identified a material weakness in our internal control over financial reporting which, if not timely remediated, may adversely affect the accuracy and reliability of our future financial statements, and our reputation, business and the price of our common stock, as well as may lead to a loss of investor confidence in us.

As described under Item 9A. “Controls and Procedures” below, as we prepared the consolidated financial statements for the year ended December 31, 2024, management has concluded that a material weakness in our internal control over financial reporting existed as of December 31, 2024. This material weakness is more fully described in Item 9A. Accordingly, internal control over financial reporting and our disclosure controls and procedures were not effective as of such date. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. Specifically, the deficiencies we identified relate to change management controls for certain financially relevant systems to ensure that IT program and data changes affecting the Company’s (i) financial IT applications and (ii) digital currency mining equipment, are identified, tested, authorized and implemented appropriately to validate that data produced by its relevant IT system(s) were complete and accurate. In addition, the Company has not effectively designed a manual key control to detect material misstatements in revenue.

Since the material weakness was identified, our management has been implementing and continues to implement measures designed to ensure that control deficiencies contributing to the material weakness are remediated, such that these controls are designed, implemented, and operating effectively. We are taking the following actions to remediate this material weakness:

- Enhance our remediation efforts by continuing to devote resources in 2025 in key financial reporting and information technology areas, including hiring additional employees.
- Continue using an external third-party internal audit and SOX 404 implementation consulting firm to improve the Company’s controls related to the material weakness described above.
- Continue to implement new processes and controls and engage external resources when required in connection with remediating this material weakness, such that these controls are designed, implemented, and operating effectively.

We cannot assure you the measures we are taking to remediate the material weakness will be sufficient or that they will prevent future material weaknesses. Additional material weaknesses or failure to maintain effective internal control over financial reporting could cause us to fail to meet our reporting obligations as a public company and may result in a restatement of our financial statements for prior periods.

The occurrence of, or failure to remediate, this material weakness and any future material weaknesses in our internal control over financial reporting may adversely affect the accuracy and reliability of our financial statements and have other consequences that could materially and adversely affect our business, including an adverse impact on the market price of our common stock, potential actions or investigations by the SEC or other regulatory authorities, shareholder lawsuits, a loss of investor confidence and damage to our reputation.

Bitfury Group is a significant shareholder and, as such, may be able to exert influence over our strategic direction and matters submitted to our stockholders for approval.

As of February 24, 2025, Bitfury Group holds approximately 27% of our common stock. Accordingly, Bitfury Group may be able to exert influence over matters submitted to our stockholders for approval, such as the election of directors and amendments of our organizational documents. Bitfury Group may have interests that differ from those of the other stockholders and may vote in a way with which the other stockholders disagree and which may be adverse to their interests. This concentrated ownership may have the effect of delaying, preventing or deterring a change in control of Cipher, could deprive Cipher’s stockholders of an opportunity to receive a premium for their capital stock as part of a sale of Cipher, and might ultimately affect the market price of shares of our common stock. Any future transactions by Bitfury Group with other investors could decrease the price and trading volume of our common stock. Thus, the decisions of Bitfury Group as a significant shareholder on certain matters may be contrary to the expectations or preferences of our other common stockholders and could have a material adverse effect on our business, prospects, financial condition, and operating results.

Exercise of our outstanding warrants for our common stock would increase the number of shares eligible for future resale in the public market and result in dilution to our stockholders.

As of February 24, 2025, we had 8,613,980 outstanding warrants to purchase our common stock, which became exercisable beginning October 19, 2021. The exercise price of these warrants will be $11.50 per share. To the extent such warrants are exercised, additional shares of our common stock will be issued, which will result in dilution to the holders of our common stock and increase the number of shares eligible for resale in the public market. Sales of substantial numbers of such shares in the public market or the fact that such warrants may be exercised could adversely affect the prevailing market price of our common stock. However, there is no guarantee that the public warrants will be in the money at a given time prior to their expiration, and as such, the warrants may expire worthless.

There is no guarantee that our public warrants will ever be in the money, and they may expire worthless.

The exercise price for our public warrants is $11.50 per share of our common stock. There is no guarantee that our public warrants will ever be in the money prior to their expiration, and as such, the warrants may expire worthless.

The price of our common stock and warrants has been and may continue to be volatile.

Securities markets worldwide experience significant price and volume fluctuations. This market volatility, as well as general economic, market, or political conditions, could reduce the market price of our common stock and warrants in spite of our operating performance, which may limit or prevent investors from readily selling their common stock or warrants and may otherwise negatively affect the liquidity of our common stock or warrants. There can be no assurance that the market price of common stock and warrants will not fluctuate widely or decline significantly in the future in response to a number of factors, including, among others, the following:

- changes in financial estimates by us or by any securities analysts who might cover our stock;
- proposed changes to laws in the U.S. or foreign jurisdictions relating to our business, or speculation regarding such changes;
- delays, disruptions or other failures in the supply of cryptocurrency hardware, including chips;
- conditions or trends in the digital assets industries and, specifically the bitcoin mining space;
- stock market price and volume fluctuations of comparable companies;
- fluctuations in prices of bitcoin and other cryptocurrencies;
- announcements by us or our competitors of significant acquisitions, strategic partnerships or divestitures;
- significant lawsuits or announcements of investigations or regulatory scrutiny of its operations or lawsuits filed against us;
- recruitment or departure of key personnel;
- investors’ general perception of our business or management;
- trading volume of our common stock;
- overall performance of the equity markets;
- publication of research reports about us or our industry or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- general global, political and economic conditions; and
- other events or factors, many of which are beyond our control.

In addition, in the past, stockholders have initiated class action lawsuits against public companies following periods of volatility in the market prices of these companies’ stock. Such litigation, if instituted against us, could cause it to incur substantial costs and divert management’s attention and resources from our business.

If securities or industry analysts cease publishing research or reports about us, our business or market, or if they change their recommendations regarding our securities adversely, the price and trading volume of our securities could decline.

The trading market for our securities may be influenced by the research and reports that industry or securities analysts may publish about us, our business, market or competitors. If any of the analysts who cover us change their recommendation regarding our common stock adversely, or provide more favorable relative recommendations about its competitors, the price of our common stock may decline. If any analyst who covers us were to cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause its share price or trading volume to decline.

Future sales, or the perception of future sales, by our stockholders in the public market could cause the market price for our common stock to decline.

The sale of shares of our common stock in the public market, or the perception that such sales could occur, could harm the prevailing market price of shares of our common stock. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that it deems appropriate.

Because there are no current plans to pay cash dividends on our common stock for the foreseeable future, you may not receive any return on investment unless you sell our common stock for a price greater than that which you paid for it.

We may retain future earnings, if any, for future operations, expansion and debt repayment and have no current plans to pay any cash dividends for the foreseeable future. Any decision to declare and pay dividends as a public company in the future will be made at the discretion of the Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that the Board may deem relevant. In addition, our ability to pay dividends may be limited by covenants of any existing and future outstanding indebtedness it or its subsidiaries incur. As a result, you may not receive any return on an investment in our common stock unless you sell your shares of common stock for a price greater than that which you paid for it.

We may issue additional shares of our common stock or other equity securities without your approval, which would dilute your ownership interests and may depress the market price of our common stock.

Pursuant to the Incentive Award Plan, approximately 7.0% of the fully diluted shares of our common stock was initially reserved for future issuance, which reserve amount has increased each year since then, and is subject to increase annually or from time to time in the discretion of our compensation committee. Shares registered under registration statements on Form S-8 filed with the SEC are available for sale in the open market.

In addition, pursuant to an at-the-market offering agreement with Cantor Fitzgerald & Co., Canaccord Genuity LLC, Needham & Company, LLC, Compass Point Research & Trading, LLC, Keefe, Bruyette & Woods, Inc., Virtu Americas LLC and BTIG, LLC, we may, from time to time, sell shares of our common stock having an aggregate offering price of up to $725.7 million, which consists of (i) up to $125.7 million remaining as authorized under the Company's Registration Statement on Form S-3, which was declared effective by the Securities and Exchange Commission ("SEC") on October 6, 2022, and (ii) up to $600.0 million of Shares, which can be issued and sold pursuant to the Company's shelf registration statement on Form S-3ASR, filed with the SEC on September 3, 2024, which became immediately effective upon filing. For further details, see "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources*." We may also issue additional shares of our common stock or other equity securities of equal or senior rank in the future in connection with, among other things, future acquisitions, joint ventures or repayment of outstanding indebtedness, without stockholder approval, in a number of circumstances.

The issuance of additional shares or other equity securities of equal or senior rank would have the following effects:

- existing stockholders' proportionate ownership interest in us will decrease;
- the amount of cash available per share, including for payment of dividends in the future, may decrease;
- the relative voting strength of each previously outstanding our common stock may be diminished; and

- the market price of our common stock or public warrants may decline.

In the future, we may also issue its securities in connection with investments or acquisitions. The amount of shares of our common stock issued in connection with an investment or acquisition could constitute a material portion of our then-outstanding shares of common stock. Any issuance of additional securities in connection with investments or acquisitions may result in additional dilution to our stockholders.

Anti-takeover provisions in our Certificate of Incorporation and under Delaware law could make an acquisition of Cipher, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Our Certificate of Incorporation contains provisions that may delay or prevent an acquisition of Cipher or a change in its management in addition to the significant rights of Bitfury Group as direct and indirect holder of approximately 27% of our common stock, as of February 24, 2025. These provisions may make it more difficult for stockholders to replace or remove members of the Board. Because the Board is responsible for appointing the members of the management team, these provisions could in turn frustrate or prevent any attempt by stockholders to replace or remove the current management. In addition, these provisions could limit the price that investors might be willing to pay in the future for shares of our common stock. Among other things, these provisions include:

- the limitation of the liability of, and the indemnification of, its directors and officers;
- a prohibition on actions by its stockholders except at an annual or special meeting of stockholders;
- a prohibition on actions by its stockholders by written consent; and
- the ability of the Board to issue preferred stock without stockholder approval, which could be used to institute a “poison pill” that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by the Board.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the DGCL, which prohibits a person who owns 15% or more of its outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired 15% or more of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner. This could discourage, delay or prevent a third party from acquiring or merging with us, whether or not it is desired by, or beneficial to, its stockholders. This could also have the effect of discouraging others from making tender offers for our common stock, including transactions that may be in our stockholders’ best interests. Finally, these provisions establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings. These provisions would apply even if the offer may be considered beneficial by some stockholders.

Our Certificate of Incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States of America will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit its stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our Certificate of Incorporation provides that the Court of Chancery of the State of Delaware will be the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising under the DGCL or the Governing Documents; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine or otherwise related to our internal affairs.

To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, the Certificate of Incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of the Certificate of Incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for potential disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. If a court were to find either exclusive-forum provision in the Certificate of Incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could harm our business.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our securities may be volatile and, in the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert management's attention from other business concerns, which could seriously harm its business.

We no longer qualify as an "emerging growth company" or a "smaller reporting company" as of December 31, 2024 and, as a result, we are no longer be able to avail ourselves of certain reduced reporting requirements applicable to emerging growth companies or smaller reporting companies, subject to applicable transition relief.

Prior to December 31, 2024, we were an "emerging growth company," as defined in the JOBS Act, and we took taken advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies," including the auditor attestation requirements of Section 404, compliance with requirements that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditors' report providing additional information about the audit and the financial statements, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. In addition, as an emerging growth company, we elected to use the extended transition period for complying with new or revised accounting standards until those standards would otherwise apply to private companies. As a result, our consolidated financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies.

Because the market value of our common stock held by non-affiliates exceeded $700 million as of June 30, 2024, we are deemed a large accelerated filer under the Exchange Act and lose our status as an "emerging growth company" as of December 31, 2024. As a result, subject to certain grace periods, we are required to:

- engage an independent registered public accounting firm to provide an attestation report on our internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002;
- submit certain executive compensation matters to stockholder advisory votes; and
- disclose a compensation discussion and analysis, including disclosure regarding certain executive compensation related items such as the correlation between executive compensation and performance and comparisons of the chief executive officer's compensation to median employee compensation.

Subject to certain grace periods, we are no longer able to take advantage of cost savings associated with the JOBS Act. Furthermore, if the additional requirements applicable to non-emerging growth companies divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. The increased costs will decrease our net income or increase our net loss and may require us to reduce costs in other areas of our business. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. Furthermore, if we are unable to satisfy our obligations as a non-emerging growth company, we could be subject to delisting of our common stock, fines, sanctions and other regulatory action and potentially civil litigation.

As a result of our loss of "emerging growth company" status, it is possible that investors will find our common stock less attractive in light of the fact that we have relied on certain of these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our share price may be more volatile. In addition, any failure to comply with these additional requirements in a timely manner, or at all, could have an adverse effect on our business and results of operations and could cause a decline in the price of our common stock.

Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

Cybersecurity Risk Management and Strategy

We have developed and implemented a cybersecurity risk management program intended to protect the confidentiality, integrity, and availability of our critical systems and information.

Our cybersecurity risk management program is integrated into our overall enterprise risk management program, and shares common methodologies, reporting channels and governance processes that apply across the enterprise risk management program to other legal, compliance, strategic, operational, and financial risk areas.

Key elements of our cybersecurity risk management program include:

- risk assessments designed to help identify material risks from cybersecurity threats to our critical systems, information, services, and our broader enterprise IT environment;
- individuals, including employees and external third party service providers, who are responsible for managing our cybersecurity risk assessment processes, our security controls, and our response to cybersecurity incidents;
- the use of external service providers, where appropriate, to assess, test or otherwise assist with aspects of our security controls;
- cybersecurity awareness training of our employees, incident response personnel, and senior management;
- a cybersecurity incident response plan that includes procedures for responding to cybersecurity incidents; and
- a third-party risk management process for key service providers, suppliers, and vendors based on our assessment of their criticality to our operations and respective risk profile.

We have not identified risks from known cybersecurity threats, including as a result of any prior cybersecurity incidents, that have materially affected us, including our operations, business strategy, results of operations, or financial condition. We face risks from cybersecurity threats that, if realized, are reasonably likely to materially affect us, including our operations, business strategy, results of operations, or financial condition. See "*Risk Factors—Risks Related to Our Business, Industry and Operations— If we or our third-party providers fail to protect confidential information and/or experience cybersecurity incidents, such as cyber-attacks, data breaches, hacking attacks or malware, there may be disruptions to our operations, triggering significant liability for us, which could harm our operating results and financial condition, and damage our reputation or otherwise materially harm our business*."

Cybersecurity Governance

Our Board considers cybersecurity risk as part of its risk oversight function and has delegated to the Audit Committee oversight of cybersecurity and other information technology risks. The Audit Committee oversees management's implementation of our cybersecurity risk management program.

The Audit Committee receives regular reports from management on our cybersecurity risks. In addition, management updates the Committee, where it deems appropriate, regarding any cybersecurity incidents it considers to be significant or potentially significant.

The Audit Committee reports to the full Board regarding its activities, including those related to cybersecurity. The full Board also receives briefings from management on our cyber risk management program. Board members receive presentations on cybersecurity topics from our Chief Technology Officer (CTO), internal security staff or external experts as part of the Board's continuing education on topics that impact public companies. Members of the Audit Committee have experience in overseeing and managing cybersecurity and data privacy risks.

Our management team is responsible for assessing and managing our material risks from cybersecurity threats. The team has primary responsibility for our overall cybersecurity risk management program and supervises both our internal cybersecurity personnel and our retained external cybersecurity consultants. Members of our management team have prior work experience in supervising and implementing cybersecurity risk mitigation efforts in highly-regulated industries. Our internal cybersecurity personnel and retained external cybersecurity consultants also have a breadth of expertise across core cybersecurity disciplines including governance, risk, compliance, and security architecture.

Our management team takes steps to stay informed and monitors efforts to prevent, detect, mitigate, and remediate cybersecurity risks and incidents through various means, which may include briefings from internal security personnel; threat intelligence and other information obtained from governmental, public or private sources, including external consultants engaged by us; and alerts and reports produced by security tools deployed in the IT environment.

Item 2. Properties.

As of December 31, 2024, we leased all of our office space located in New York, New York, Charleston, South Carolina, and Denver, Colorado. We also lease land for our data center facilities in Odessa, Texas, Winkler County, Texas, and Cotulla, Texas.

We own land in West Texas for two of our sites.

Management believes its facilities are adequate for the Company's near-term needs and that should it be needed, suitable additional or alternative space will be available to accommodate our operations.

Item 3. Legal Proceedings.

We are not a party to any material pending legal proceedings. From time to time, we may be subject to legal proceedings and claims arising in the ordinary course of business. The outcome of any such claims or proceedings, regardless of the merits, is inherently uncertain. The information contained in "Note 14—Commitments and Contingencies" in the notes to the consolidated financial statements included elsewhere in this Annual Report is incorporated by reference into this Item 3.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common stock and public warrants are listed and traded on the Nasdaq Stock Exchange under the symbols "CIFR" and "CIFRW," respectively.

Holders

As of February 24, 2025, there were 25 holders of record of our common stock and 1 holder of record of our public warrants. Such numbers do not include beneficial owners holding our securities through nominee names. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners but whose shares are held in street name by brokers or other nominees.

Dividend Policy

We have never declared or paid any dividends on our capital stock, and we do not currently intend to pay any cash dividends for the foreseeable future. We expect to retain future earnings, if any, to fund the development and growth of our business. Any future determination to pay dividends on our common stock will be at the discretion of the Board and will depend upon, among other factors, our financial condition, operating results, current and anticipated cash needs, plans for expansion and other factors that the Board may deem relevant.

Recent Sales of Unregistered Equity Securities

None.

Issuer Purchases of Equity Securities

None.

Item 6. [Reserved]

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and related notes included elsewhere in this Annual Report. This discussion contains forward-looking statements based upon current plans, expectations and beliefs involving risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in Part 1, Item 1A, “Risk Factors” and other factors set forth in other parts of this Annual Report.

Unless the context otherwise requires, references in this Annual Report to the “Company,” “Cipher,” “Cipher Mining,” “we,” “us” or “our” refers to Cipher Mining Inc. and its consolidated subsidiaries, unless otherwise indicated.

Overview

We develop and operate industrial-scale data centers. Our active portfolio and development pipeline is expected to consist of more than 3.0 GW of capacity across 11 sites. We currently operate four bitcoin mining data centers and have a pipeline of seven additional sites in Texas, including one site expected to energize in May 2025. As we develop the sites in our pipeline and source future sites, we evaluate their suitability for either bitcoin mining or HPC. For further details on our data centers, see “*Business—Data Center Portfolio*.”

Our current intention is to continue expanding our business by developing and operating industrial-scale data centers for bitcoin mining and HPC, expanding capacity at our current data centers, developing our treasury management platform and entering into other strategic arrangements, such as joint ventures, data center hosting and leasing agreements, or software licensing arrangements. We aim to be a market leader in innovation, including in bitcoin mining growth, data center construction and as a hosting partner to HPC companies.

We currently operate 327 MW of facilities across four bitcoin mining data centers in Texas, including one wholly-owned data center and three partially-owned data centers that we acquired through investments in joint ventures. We also have a pipeline of approximately 2.8 GW across seven additional sites in Texas, including one site that we expect to energize in May 2025. We will continue to evaluate other sites, locations and partnerships to expand our data center operations, selecting sites that are suitable for bitcoin mining and HPC data centers.

As of January 31, 2025, we operated an aggregate hashrate capacity of approximately 15.7 exahash per second (“EH/s”), deploying approximately 327 megawatts (“MW”) of electricity, of which we owned an aggregate hashrate capacity of approximately 13.5 EH/s, deploying approximately 266 MW of electricity. As further discussed in “*—Our Strategy*”, we plan to deploy an additional approximately 150 MW for a total of approximately 477 MW of electrical capacity by the end of 2025, and a corresponding hashrate of at least approximately 25.2 EH/s, of which we expect to own approximately 23.0 EH/s, with the remainder being owned by WindHQ, our JV partner. For further details on our joint ventures, see “*Business—Business Agreements—Joint Ventures*.”

Recent Developments

On January 30, 2025, we entered into a subscription agreement with Star Beacon LLC, a wholly owned subsidiary of SoftBank Group Corp. (“SoftBank”), pursuant to which, among other things, SoftBank agreed to subscribe for and purchase from us, and we agreed to issue and sell to SoftBank, an aggregate of approximately 10,438,413 newly issued shares of our common stock, par value $0.001, at a per share purchase price of $4.79 for an aggregate purchase price of approximately $50 million. As part of this transaction, we agreed prior to February 28, 2025, we would not enter into binding definitive documentation with respect to the sale, transfer, divestiture or encumbrance of the Barber Lake property with any person other than SoftBank and its affiliates.

On January 31, 2025, we executed our option as part of the Amendment Agreement, further described in *Note 6. Deposits on equipment*, with Bitmain to obtain Antminer S21 XP miners for delivery between May and June 2025. We intend to use these machines at the Black Pearl Facility. As of February 25, 2025, we owe $139 million remaining for these machine purchases.

Factors Affecting Our Results of Operations

We believe that our performance and future success depend on a number of factors that present significant opportunities for us. These factors also pose risks and challenges, including those discussed in Part I, Item 1A. "Risk Factors" of this Annual Report.

Market Value of Bitcoin.

Our revenues comprise a combination of: (i) block rewards in bitcoin, which are fixed rewards programmed into the bitcoin software that are awarded to a miner or a group of miners for solving the cryptographic problem required to create a new block on a given blockchain and (ii) transaction fees in bitcoin, which are flexible fees earned for verifying transactions in support of the blockchain. For further details, see "*Business—Revenue Structure.*"

Our revenues are directly impacted by changes in the market value of bitcoin. For example, the market price of one bitcoin in our principal market ranged from approximately $38,501 to $108,389 during the fiscal year ended December 31, 2024 and $16,490 to $45,000 during the fiscal year ended December 31, 2023. Furthermore, block rewards are fixed and the Bitcoin network is designed to periodically reduce them through halving. Currently the block rewards are fixed at 3.125 bitcoin per block after the latest halving in April 2024. The halving events happen without any regard to ongoing demand, meaning that if the ongoing demand remains the same after a halving event, whatever demand was being met by new supply will be restricted, which may necessitate an adjustment of the price of bitcoin, though there is no definitive evidence of a causal link between bitcoin's programmatic decrease in supply and broadening demand.

Bitcoin miners also collect transaction fees for each transaction they confirm. Miners validate unconfirmed transactions by adding the previously unconfirmed transactions to new blocks in the blockchain. Miners are not forced to confirm any specific transaction, but they are economically incentivized to confirm valid transactions as a means of collecting fees. Miners have historically accepted relatively low transaction confirmation fees, but transaction fees vary and it is difficult to predict what transaction fees will be in the future.

As the use of the Bitcoin network expands and the total number of bitcoin available to mine and, thus, the block rewards, declines over time, we expect the mining incentive structure to transition to a higher reliance on transaction confirmation fees, and the transaction fees to become a larger proportion of the revenues to miners.

We have expenses denominated primarily in United States dollars. As such, we are likely to need to sell a portion of the bitcoin we mine to generate dollars to meet expenses. This means the market value of bitcoin will always be a significant factor affecting our results of operations.

Capacity and Efficiency of Mining Machines.

Because the number of bitcoin mined is directly related to the size and efficiency of a bitcoin mining company's fleet of miners, we believe we need to deploy increasingly sophisticated miners in ever greater quantities to remain competitive as the overall hashrate and difficulty of the Bitcoin network increases.

We believe that our commitment to cost and mining efficiency remains our competitive advantage. The majority of our capital expenditures have been directed towards the latest models of mining machines and technology featuring industry-leading capacity, speed and efficiency. We believe that we operate one of the most efficient mining rig fleets in the global market. We believe that to maintain our competitive advantage over the long term, we must develop and maintain strong relationships across the mining rig supply chain, and strategically invest in state-of-the art miners at attractive prices, while effectively managing our fleet as it ages along the obsolescence curve.

Cost and Source of Power.

Mining bitcoin is a highly power-intensive process, with large amounts of electrical power required to operate the mining rigs. We believe that cost efficiency, and particularly, maintaining cost of power efficiency in bitcoin mining over the long term, are necessary for success. We currently have a portfolio of competitively priced electrical power. However, there is no guarantee that we will be able to negotiate additional power agreements on similar terms, or at all. See "*Risk Factors—Risks Related to Our Business, Industry and Operations—We may be affected by price fluctuations in the wholesale and retail power markets.*" Our four currently operational data centers are all located in west Texas and the Texas Panhandle, which are areas that we believe have site development potential with access to competitively priced electrical power, whether through grid connection, through solar and wind generation facilities, or otherwise. We believe these strategic investments will generate long-term returns in the form of controlled access to low cost, responsible sources of power and differentiate us from our competitors. However, after the initial terms of our current power purchase arrangements end, we may not be able to secure similarly competitively priced access to the electrical power needed for our data centers to mine bitcoin profitably.

Competition.

Our business environment is constantly evolving. In the past few years there have been many new entrants and existing competitors in the bitcoin mining space and a general increase in the competition for industrial-scale bitcoin mining companies with whom we compete over aspects of our industry, such as hashrate and power capacity. Additionally, there have been new entrants in the data center space, such as HPC companies, with whom we may compete over power availability. As the competition for power capacity and data center locations continues to increase, we have been able to capitalize on our commitment to innovation and flexibility by expanding our business to include data center construction for industries beyond bitcoin mining, such as HPC hosting.

The number of bitcoin we are able to mine depends on the size of our share of the total network hashrate. It is very difficult to predict changes in network hashrate. To the extent that we are unable to maintain our market share, or in other words, to the extent that the relative portion our network hashrate represents as compared to the total network hashrate decreases, we may mine fewer bitcoin than anticipated and the results of our operations may suffer. See "*Risk Factors — Risks Related to Our Business, Industry and Operations — We operate in a highly competitive industry and we compete against companies that operate in less regulated environments as well as companies with greater financial and other resources, and our business, operating results, and financial condition may be adversely affected if we are unable to respond to our competitors effectively*."

Global Supply Chain Constraints.

The operations of our facilities and our other expansion plans, require specialized equipment, large quantities of construction materials and other component parts that can be difficult to source. We may experience disruptions to our business operations resulting from delays in construction and obtaining necessary equipment in a timely fashion due to global supply chain delays caused by geopolitical unrest, global pandemics, or other factors. Global supply logistics have caused delays across all channels of distribution, and we have also experienced delays in certain of our miner delivery schedules. Additionally, the global supply chain for data center construction equipment, such as transformers and substations, is presently further constrained due to unprecedented demand. Based on our current assessments, we do not expect any material impact on long-term development, operations, or liquidity. However, we continue to monitor developments in the global supply chain and assess their potential impact on our operations and expansion plans.

Regulation.

As a company operating at the intersection of data center, bitcoin mining and HPC hosting services, we are committed to maintaining a proactive and adaptive approach to regulatory compliance. We closely monitor legislative and regulatory developments and engage in dialogue with relevant stakeholders to ensure our business practices align with the evolving legal and regulatory framework. Despite uncertainties posed by a changing regulatory landscape, we remain committed to maintaining innovative and responsible business practices in data center, bitcoin mining and HPC hosting markets. We operate in a complex and rapidly evolving regulatory environment and we are subject to a wide range of laws and regulations enacted by U.S. federal, state and local governments, governmental agencies and regulatory authorities, including the SEC, the CFTC, the FTC and FinCEN, as well as similar entities in other countries. Other regulatory bodies, governmental or semi-governmental, have shown an interest in regulating or investigating companies engaged in the blockchain or cryptocurrency businesses.

As the regulatory and legal environment evolves, we may become subject to new laws and further regulation by the SEC, CFTC, other federal agencies and state and local governments, which may affect our mining and other activities. For example, on January 23, 2025, the Trump Administration signed an executive order titled "Strengthening American Leadership in Digital Financial Technology," which introduces new dynamics to the regulatory landscape. This order emphasizes the importance of the digital asset industry in U.S. innovation and economic development, outlining policies to support the growth and use of digital assets and blockchain technology. Key policies outlined in the executive order include ensuring access to open public blockchain networks for lawful purposes, promoting the U.S. dollar's sovereignty through lawful dollar-backed stablecoins, and providing regulatory clarity with technology-neutral regulations. The establishment of a new working group within the National Economic Council to propose a federal regulatory framework for digital assets could lead to significant changes in market structure, oversight, consumer protection, and risk management. The evolving regulatory environment may pose challenges to our operations, particularly if new regulations introduce additional compliance costs or restrict certain activities. Additionally, various bills have been proposed in the U.S. Congress related to our business, which may be adopted and have an impact on us, and governmental agencies and regulatory authorities, such as the SEC, the CFTC, the FTC and FinCEN, may also enact regulations related to our business, which may have an impact on us.

On a state level, there have been several recent legislative efforts to manage power consumption and support grid reliability, which affects our business, as an operator of industrial-scale data centers. In 2025, the Texas legislature introduced legislation to support ERCOT's grid reliability by proposing minimum transmission rates on certain large loads and removing phantom loads from its interconnection queue to enhance accuracy of actual future load growth. Such regulation may increase the costs of running our current data centers and sourcing new potential sites in Texas. In 2025, the PUCT also required operators of large virtual currency mining operations connected to register their facilities with the PUCT. For additional discussion regarding our belief about the potential risks existing and future regulation pose to our business, see "*Risk Factors—Risks Related to Regulatory Framework.*"

Furthermore, because we may strategically expand our operations into new areas, see "*Business—Our Strategy—Commitment to growth, innovation and retaining flexibility to consider strategically adjacent opportunities to expand our business model,*" we may become subject to additional regulatory requirements.

Summary of Bitcoin Mining Results

The following table presents information about our Bitcoin mining activities for the year ended December 31, 2024, including bitcoin production and sales of bitcoin (dollar amounts in thousands):

	Quantity	Amounts
Opening balance	780	$ 32,978
Bitcoin received from equity investees	442	18,089
Bitcoin received from mining activities	2,189	151,296
Bitcoin received from loan	99	9,976
Bitcoin loan payments	(20)	(1,977)
Proceeds from sale of bitcoin	(2,151)	(148,870)
Realized gains on sale of bitcoin	—	51,548
Unrealized gains on bitcoin	—	11,313
Bitcoin transferred to collateral, net	(345)	(31,702)
Ending balance	994	$ 92,651

Components of Our Results of Operations

Revenue

Our revenue consists of bitcoin earned through mining activities at the Odessa Facility. We currently participate in third-party mining pools to mine bitcoin. The provision of computing power in accordance with the mining pool operator's terms of service is the only performance obligation in our contract with the mining pool operator. We are entitled to a fractional share of the fixed cryptocurrency award from the mining pool operator (referred to as a "block reward") and potentially transaction fees generated from blockchain users and distributed to individual miners by the mining pool operator.

Our fractional share of the block reward is based on the proportion of computing power we contributed to the mining pool operator to the total computing power contributed by all mining pool participants in solving the current algorithm, over the contract term. The block reward is pre-determined and hard coded into the protocol governing the relevant blockchain. Our proportionate share of transaction fees is based on our contributed share of hashrate as a percentage of total network hashrate during the contract term. The transaction fees are the aggregate fees paid by parties whose transactions are included in the block. Bitcoin earned is measured at fair value at contract inception and is recognized in revenue over the contract term as hashrate is provided.

Cost of revenue

Cost of revenue consists of direct production costs of bitcoin mining operations, primarily electricity expenses, as well as other facilities costs associated with our wholly-owned Odessa Facility, but excludes depreciation which is separately stated.

General and administrative expenses

General and administrative expenses represent insurance expense, rent expense, professional fees, including accounting and audit, consulting, legal, public relations and/or investor relations expenses, non-income taxes and licenses, travel, and other expenses. We expect our administrative fees to remain high as we incur the ongoing costs of operating as a public company, including increased director and officer insurance costs, and increased travel and conference participation expenses.

Depreciation

Our depreciation expense consists mainly of depreciation for our miners and mining equipment, as well as depreciation associated with leasehold improvements and other capitalized assets. We capitalize the cost of our mining machines and record depreciation expense on a straight-line basis over the estimated useful life of the machines, which is generally 3 years. Leasehold improvements include capitalized asset retirement costs, which are amortized over the estimated useful life of the related asset. All other leasehold improvements are depreciated over the lesser of the estimated useful life of the asset or the remaining life of the related lease.

Change in fair value of derivative asset and power sales

The change in fair value of derivative asset represents the changes in fair value of the Luminant Power Agreement recorded during the reporting period.

Equity in losses of equity investees

Equity in losses of equity investees includes our share of the losses recorded by Alborz LLC, Bear LLC and Chief Mountain LLC. Additionally, it includes the losses that we recognized upon our contributions of miners to these equity investees, due to the miners having a lower fair value at the time of the contributions than our costs paid to obtain them, which resulted in basis differences between the cost of the investments on our consolidated balance sheet and the amount of our underlying equity in the net assets of the investee attributed to the miners. We are accreting these basis differences and recognizing the accretion as a reduction to our share of the losses recognized by Alborz LLC, Bear LLC and Chief Mountain LLC within the equity in losses of equity investees on the consolidated statement of operations over the depreciation period for the miners.

Changes in fair value of bitcoin and realized gain/loss on sale of bitcoin

All of our bitcoin is recorded as a current asset on our consolidated balance sheet as we expect to begin regularly exchanging our bitcoin held for fiat currency to fund our operating expenses. We adopted ASU 2023-08 effective January 1, 2023, which requires cryptocurrencies to be measured at fair value each reporting period with changes in fair value being reported in net income.

The fair value of bitcoin has been highly volatile since we began to obtain bitcoin through our operating activities, which has impacted our operating results and we expect volatility in the fair value of bitcoin to continue for the foreseeable future.

Provision for income taxes

Our provision for income taxes primarily consists of U.S. deferred federal taxes. A valuation allowance is recorded against substantially all of our net deferred tax assets, which are composed primarily of federal and state net operating loss carryforwards, stock-based compensation, non-goodwill intangibles, investments in joint ventures and lease liabilities; in addition, we have deferred tax liabilities resulting from our derivative and right-to-use assets. Our ability to offset our deferred tax liabilities with our deferred tax assets is limited due to restrictions on the ability to offset taxable income by more than eighty percent with federal net operating losses. As a result, we have recorded a deferred tax liability for the amount of future taxable income that is not expected to be covered by net operating losses. We evaluate our ability to recognize our deferred tax assets annually by considering all positive and negative evidence available as proscribed by the Financial Accounting Standards Board (“FASB”) under its general principles of Accounting Standards Codification (“ASC”) 740, *Income Taxes*.

Results of Operations

The following table presents sets forth our results of operations for the periods indicated (in thousands):

	Year Ended December 31, 2024	Year Ended December 31, 2023
Revenue - bitcoin mining	$ 151,270	$ 126,842
Costs and operating (expenses) income		
Cost of revenue	(62,364)	(50,309)
Compensation and benefits	(60,796)	(57,399)
General and administrative	(32,655)	(27,796)
Depreciation and amortization	(102,448)	(59,093)
Change in fair value of derivative asset	(7,921)	26,836
Power sales	5,405	9,941
Equity in losses of equity investees	(384)	(2,530)
Unrealized gains on fair value of bitcoin	11,313	3,299
Realized gains on sale of bitcoin	51,548	7,739
Other gains	3,333	2,355
Total costs and operating expenses	(194,969)	(146,957)
Operating loss	(43,699)	(20,115)
Other income (expense)		
Interest income	3,384	164
Interest expense	(1,708)	(1,999)
Change in fair value of warrant liability	250	(243)
Other expense	(2,544)	(17)
Total other income (expense)	(618)	(2,095)
Loss before taxes	(44,317)	(22,210)
Current income tax expense	(1,255)	(201)
Deferred income tax benefit (expense)	937	(3,366)
Total income tax benefit (expense)	(318)	(3,567)
Net loss	$ (44,635)	$ (25,777)

Comparative Results for the Years Ended December 31, 2024 and 2023

Revenue

Revenue for the year ended December 31, 2024 was $151.3 million, compared to $126.8 million for the year ended December 31, 2023, and was generated entirely from bitcoin mining operations at the Odessa Facility. The increase year over year was primarily driven by an overall increase in bitcoin price in the current year, partially offset by the halving in April 2024 which reduced the bitcoin reward per block from 6.25 to 3.125.

Cost of revenue

Cost of revenue for the year ended December 31, 2024 was $62.4 million, compared with $50.3 million for the year ended December 31, 2023, and consisted primarily of power costs at the Odessa Facility. The increase in the current year period was primarily due to expenses incurred related to the fleet upgrade at the Odessa Facility, in addition to drawing power from the grid at Odessa when our power provider curtailed us under our Power Purchase Agreement.

Compensation and benefits

Compensation and benefits for the year ended December 31, 2024 was $60.8 million, an increase of $3.4 million compared to $57.4 million for the year ended December 31, 2023. The increase was primarily due to an increase in headcount year-over-year.

General and administrative

General and administrative expenses for the year ended December 31, 2024 was $32.7 million, an increase of $4.9 million compared to $27.8 million for the year ended December 31, 2023. The increase was primarily driven by an increase in legal fees related to strategic initiatives, and professional fees related to SOX 404 compliance as a result of losing Emerging Growth Company status in 2024.

Depreciation and amortization

Depreciation and amortization for the year ended December 31, 2024 was $102.4 million, an increase of $43.3 million compared to Depreciation and amortization of $59.1 million for the year ended December 31, 2023. The increase was primarily due to increased miners, and mining equipment at the Odessa Facility, as well as the change in the estimated useful life of our miners from five years to three years.

Change in fair value of derivative asset

Change in fair value of derivative asset was a $7.9 million decrease for the year ended December 31, 2024 and was driven by the fair value of the Luminant Power Agreement. The estimated fair value of our derivative asset was derived from Level 2 and Level 3 inputs, and, due to a lack of quoted prices for similar type assets, is classified in Level 3 of the fair value hierarchy. Specifically, the discounted cash flow estimation models contain quoted spot and forward prices for electricity, as well as estimated usage rates consistent with the terms of the Luminant Power Agreement, the initial term of which is five years.

Power sales

At our Odessa Facility, we sell excess electricity that was available under the Luminant Power Agreement, but not needed in our mining operations, back to the ERCOT market through Luminant. We sold power for proceeds of $5.4 million and $9.9 million for the year ended December 31, 2024, and 2023, respectively. Power sales fluctuate each period based on power and bitcoin prices which are volatile.

Equity in losses of equity investees

Equity in losses of equity investees totaled $0.4 million for the year ended December 31, 2024 compared to losses of $2.5 million for the year ended December 31, 2023. Equity in losses of equity investees consists of our 49% share in the earnings (losses) generated by our three partially-owned mining sites, and the accretion of the basis differences in our investments in the equity investees that resulted from contributions of miners during the year ended December 31, 2022. We are accreting these basis differences over the five-year useful life of the miners.

Unrealized gains on fair value of bitcoin

Unrealized gains on fair value of bitcoin totaled $11.3 million and $3.3 million for the year ended December 31, 2024, and 2023, respectively. The increase in the current period was primarily due to the increase in our bitcoin treasury compared to the prior period, as well as the increase in bitcoin price in the current year compared to the prior year.

Realized gains on sale of bitcoin

Realized gains on sale of bitcoin totaled $51.5 million and $7.7 million for the year ended December 31, 2024, and 2023, respectively. The increase in the current period was primarily related to gains recognized on bitcoin sales used to fund construction and site acquisitions in the current period.

Other expense

Other income totaled $0.6 million for the year ended December 31, 2024, compared to $2.1 million of Other expense for the year ended December 31, 2023. The decrease was primarily related to interest income on excess cash held in interest bearing accounts in the current year period.

Provision for (benefit from) income taxes

For the year ended December 31, 2024, we recorded a provision for income taxes of $0.3 million as a result of projected income for the current year in the jurisdictions which we operate. For the year ended December 31, 2023, we recorded a benefit for income taxes of $3.6 million.

Liquidity and Capital Resources

We had cash flows from operations of $87.5 million for the year ended December 31, 2024. As of December 31, 2024, we had cash and cash equivalents of $5.6 million, total stockholders' equity of $682.0 million and an accumulated deficit of $181.4 million. We fund operations primarily through a combination of at-the-market stock issuances and bitcoin sales.

We have established an at-the-market sales agreement with Cantor Fitzgerald & Co., Canaccord Genuity LLC, Needham & Company, LLC, Compass Point Research & Trading, LLC, Keefe, Bruyette & Woods, Inc., Virtu Americas LLC, and BTIG, LLC (each, an "Agent" and, together, the "Agents"), pursuant to which we may, from time to time, sell shares of our common stock having an aggregate offering price of up to $725.7 million. For the year ended December 31, 2024, we received net proceeds on sales of 52.8 million shares of common stock under the Amended and Restated Sales Agreement of approximately $221.7 million (net of commissions and expenses) at an average net selling price of $4.20 per share. For more information on our at-the-market sales agreement and our at-the-market offerings, see "Note 15, *Stockholders' Equity — At-the-Market Sales Agreement*."

On August 14, 2023, we entered into a master loan agreement with Coinbase Credit, Inc., as lender, and Coinbase, Inc., as lending service provider. Pursuant to the master loan agreement, we currently have a secured line of credit up to $25.0 million (the "Coinbase Overnight Credit Facility"). We will not incur commitment fees for unused portions of the Coinbase Overnight Credit Facility. The borrowing rate on amounts drawn against the Coinbase Overnight Credit Facility is determined on the basis of the Federal Funds Target Rate - Upper Bound, plus 2.5%, calculated daily based on a 365-day year and payable monthly for the duration of the loan. Borrowings under the Coinbase Overnight Credit Facility are available on demand, open term, and collateralized by bitcoin transferred to the lending service provider's platform. As of December 31, 2024 we had $25.0 million drawn from the Coinbase Overnight Credit Facility, $15 million of which was repaid prior to February 25, 2025. Additionally, we established a term loan facility with Coinbase with a limit of $35.0 million and maximum period of one year (the "Term Loan Facility"). Coinbase has the right to terminate loans under the Term Loan Facility if the price of bitcoin falls below $40,000. As of December 31, 2024, we were in compliance with the covenants under the Coinbase Overnight Credit Facility.

On December 13, 2024, we entered into an agreement with Luxor Technology Corporation ("Luxor") to borrow 98.57 bitcoin for a 95 day period, which we were able to use as a source of short-term financing.

Management believes that our existing financial resources, combined with projected cash and bitcoin inflows from our data centers, our intent and ability to sell bitcoin received or earned, and our intent and ability to sell common stock through at-the-market offerings will be sufficient to enable us to meet our operating and capital requirements for at least 12 months from the date the consolidated financial statements included in this Annual Report are issued and the foreseeable future.

Cash Flows

The following table summarizes our sources and uses of cash for the periods indicated (in thousands):

	Year Ended December 31,	
	2024	2023
Net cash used in operating activities	$ (87,511)	$ (94,241)
Net cash provided by (used in) investing activities	(192,129)	52,755
Net cash provided by (used in) financing activities	213,512	115,664
Net increase (decrease) in cash and cash equivalents	$ (66,128)	$ 74,178

Operating Activities

Net cash used in operating activities decreased by $6.7 million to $87.5 million for the year ended December 31, 2024 from $94.2 million for the year ended December 31, 2023. We incurred a net loss of $44.6 million for the year ended December 31, 2024, compared to a net loss of $25.8 million for the year ended December 31, 2023, representing an increase of $18.9 million. Cash flows from operating activities was impacted by a $3.5 million increase in non-cash items, primarily driven by a $25.0 million increase in bitcoin received as payment from our mining pool operator, $34.8 million loss on our derivative asset, and a $43.8 million increase in gains on the fair value of bitcoin. Additionally, changes in assets and liabilities resulted in an increase in cash used of $29.1 million between the years ended December 31, 2024 and 2023.

Investing Activities

Cash flows used in investing activities increased by $245 million to $192.1 million of net cash used in investing activities for the year ended December 31, 2024 compared to $52.8 million of net cash provided by investing activities for the year ended December 31, 2023. This change primarily related to $129.1 million of deposits primarily related to new miner purchases, and a $33.6 million increase in contributions to equity investees related to capital expenditures and operations at the Bear and Chief facilities, partially offset by a $119.0 million increase in purchases of property and equipment related to building out the Black Pearl facility, and acquisition of the Barber Lake Facility.

Financing Activities

Cash flows provided by financing activities increased by $97.8 million to $213.5 million net cash provided by financing activities for the year ended December 31, 2024 from $115.7 million net cash used in financing activities for the year ended December 31, 2023. This change was primarily driven by $89.3 million increase in proceeds from the issuance of common stock during the year ended December 31, 2024.

Contractual Obligations and Other Commitments

On December 17, 2021, we entered into a lease agreement for office space, amended in the second quarter of 2024, with a term through May 2029. Monthly rent payments associated with the amended lease are approximately $0.2 million.

We also entered into a series of agreements with affiliates of Luminant ET Services Company LLC (“Luminant”), including the Lease Agreement dated June 29, 2021, with amendment and restatement on July 9, 2021 (as amended and restated, the “Luminant Lease Agreement”). The Luminant Lease Agreement leases a plot of land to us where our data center, ancillary infrastructure and electrical system (the “Interconnection Electrical Facilities” or “substation”) have been set up for our Odessa Facility. We entered into the Luminant Lease Agreement and the Luminant Purchase and Sale Agreement to build the infrastructure necessary to support our planned operations. Management determined that the Luminant Lease Agreement and the Luminant Purchase and Sale Agreement should be combined for accounting purposes under ASC 842 (collectively, the “Combined Luminant Lease Agreement”) and that amounts exchanged under the combined contract should be allocated to the various components of the overall transaction based on relative fair values.

Our management determined that the Combined Luminant Lease Agreement contains two lease components; and the components should be accounted for together as a single lease component, because the effect of accounting for the land lease separately would be insignificant.

The Combined Luminant Lease Agreement commenced on November 22, 2022 and has an initial term of five years, with renewal provisions that are aligned with the Luminant Power Agreement. Financing for use of the land and substation is provided by Luminant affiliates. Despite lease commencement in November 2022, we had not been required by Luminant to make any lease payments for the substation prior to July 2023, therefore we accrued amounts due under the Combined Luminant Lease Agreement in accrued expenses and other current liabilities on its consolidated balance sheet.

On August 23, 2023, we entered into a second amendment of the Luminant Lease Agreement, the terms of which included an amended payment schedule, reflecting monthly installments of principal and interest totaling $19.7 million on an undiscounted basis, due over the remaining four-year period starting in July 2023. This amendment did not have a material impact on our consolidated financial statements.

At the end of the lease term for the Interconnection Electrical Facilities, the substation will be sold back to Luminant's affiliate, Vistra Operations Company, LLC at a price to be determined based upon bids obtained in the secondary market.

Non-GAAP Financial Measures

We are providing supplemental financial measures for Adjusted Earnings (Loss) and Adjusted Earnings (Loss) per share - diluted, in each case that exclude the impact of (i) the non-cash change in fair value of derivative asset, (ii) share-based compensation expense, (iii) depreciation and amortization, (iv) deferred income tax expense, (v) nonrecurring gains and losses and (vi) the non-cash change in fair value of warrant liability. These supplemental financial measures are not measurements of financial performance under accounting principles generally accepted in the United Stated ("GAAP") and, as a result, these supplemental financial measures may not be comparable to similarly titled measures of other companies. Management uses these non-GAAP financial measures internally to help understand, manage, and evaluate our business performance and to help make operating decisions. We believe the use of these non-GAAP financial measures can also facilitate comparison of our operating results to those of our competitors by excluding certain items that vary in our industry based on company policy.

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. For example, we expect that share-based compensation expense, which is excluded from the non-GAAP financial measure, will continue to be a significant recurring expense over the coming years and is an important part of the compensation provided to certain employees, officers and directors. Similarly, we expect that depreciation and amortization will continue to be a recurring expense over the term of the useful life of the related assets. Our non-GAAP financial measures are not meant to be considered in isolation and should be read only in conjunction with our consolidated financial statements included elsewhere in this Annual Report, which have been prepared in accordance with GAAP. We rely primarily on such consolidated financial statements to understand, manage and evaluate our business performance and use the non-GAAP financial measures only supplementally.

The following is a reconciliation of our Adjusted Earnings to the most directly comparable GAAP measure for the periods indicated (in thousands):

	Year Ended December 31,	
	2024	2023
Reconciliation of Adjusted Earnings:		
Net loss	$ (44,635)	$ (25,777)
Change in fair value of derivative asset	7,921	(26,836)
Share-based compensation expense	42,132	38,470
Depreciation and amortization	102,448	59,093
Deferred income tax expense	(937)	3,366
Other gains - nonrecurring	—	(2,355)
Change in fair value of warrant liability	(250)	243
Adjusted (loss) earnings	$ 106,679	$ 46,204

The following is a reconciliation of our Adjusted Earnings (Loss) per share - diluted to the most directly comparable GAAP measure for the periods indicated:

		Year Ended December 31,		
		2024		2023
Reconciliation of Adjusted Earnings per share - diluted:				
Net loss per share - diluted	$	(0.14)	$	(0.10)
Change in fair value of derivative asset per diluted share		0.02		(0.11)
Share-based compensation expense per diluted share		0.13		0.15
Depreciation and amortization per diluted share		0.32		0.23
Deferred income tax expense per diluted share		—		0.01
Other gains - nonrecurring per diluted share		—		(0.01)
Change in fair value of warrant liability per diluted share		—		—
Adjusted (loss) earnings per diluted share	$	0.33	$	0.17

Critical Accounting Policies, and Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting period. As of, and for the year ended December 31, 2024, the most significant estimates inherent in the preparation of our consolidated financial statements include, but are not limited to, those related to equity instruments issued in share-based compensation arrangements, valuations of the derivative asset, determination of our asset retirement obligations and the valuation allowance associated with our deferred tax assets. Making estimates requires management to exercise significant judgment. It is at least reasonably possible that the estimate of the effect of a condition, situation or set of circumstances that existed at the date of the financial statements, which management considered in formulating its estimate, could change in the near term due to one or more future confirming events. Accordingly, the actual results could differ significantly from those estimates.

While our significant accounting policies are described in the notes to our consolidated financial statements included elsewhere in this Annual Report, we believe that the following critical accounting policies are most important to understanding and evaluating our reported and future financial results.

Fair value of financial instruments

Our financial assets and liabilities are accounted for in accordance with ASC 820, *Fair Value Measurement*, which defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The fair value hierarchy requires an entity to maximize the use of observable inputs when measuring fair value and classifies those inputs into three levels:

Level 1 – Observable inputs, such as quoted prices in active markets for identical assets and liabilities.

Level 2 – Inputs other than Level 1 inputs that are either directly or indirectly observable, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the instrument's anticipated life.

Level 3 – Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

To the extent the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair values requires more judgment. Accordingly, the degree of judgment exercised by management in determining fair value is greatest for instruments categorized as Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The carrying values reported in our consolidated balance sheets for cash (excluding cash equivalents which are recorded at fair value on a recurring basis), accounts payable and accrued expenses and other current liabilities are reasonable estimates of their fair values due to the short-term nature of these items.

Bitcoin

Bitcoin are included in current assets on our consolidated balance sheets. Bitcoin received through our wholly-owned mining activities are accounted for in connection with our revenue recognition policy. Bitcoin awarded to us as distributions-in-kind from equity investees are accounted for in accordance with ASC 845, *Nonmonetary Transactions*, and recorded at fair value upon receipt.

Bitcoin we hold is accounted for under ASC 350-60, *Crypto Assets,* issued by the FASB in December 2023. Intangible assets under the scope of this subtopic are measured at fair value on our consolidated balance sheet. We determine the fair value of our bitcoin on a nonrecurring basis in accordance with ASC 820 based on quoted prices on the active trading platform (Level 1 inputs). Prior to the adoption of ASU 2023-08, bitcoin was accounted for as an intangible asset subject to impairment. Upon adoption of ASC 350-60 on January 1, 2023, we recorded an opening adjustment to retained earnings of $0.2 million.

Bitcoin awarded to us through our mining activities are included as an adjustment to reconcile net loss to cash used in operating activities on the consolidated statements of cash flows. Proceeds from sales of bitcoin sold nearly immediately are included within cash flows from operating activities, and proceeds from bitcoin held for over one week are included within cash flow from investing activities on the consolidated statements of cash flows and any realized gains or losses from such sales are included in costs and operating expenses (income) on the consolidated statements of operations. The receipt of bitcoin as distributions-in-kind from equity investees are included within investing activities on the consolidated statements of cash flows. Bitcoin are sold on a first-in-first-out (“FIFO”) basis.

Derivative asset

Management determined that, as of July 1, 2022, the Luminant Power Agreement meets the definition of a derivative under ASC 815, *Derivatives and Hedging*. Because we have the ability to sell our electricity rather than take physical delivery, physical delivery is not probable through the entirety of the contract and therefore, management does not believe the normal purchases and normal sales scope exception applies to the Luminant Power Agreement. Accordingly, the Luminant Power Agreement (the non-hedging derivative contract) is recorded at an estimated fair value each reporting period with the change in the fair value recorded in change in fair value of derivative asset in the consolidated statements of operations.

The estimated fair value of our derivative asset was derived from Level 2 and Level 3 inputs (i.e., unobservable inputs) due to a lack of quoted prices for similar type assets and as such, is classified in Level 3 of the fair value hierarchy. Specifically, the discounted cash flow estimation models contain quoted spot and forward prices for electricity, as well as estimated usage rates consistent with the terms of the Luminant Power Agreement, the initial term of which is five years. The valuations performed by the third-party valuation firm engaged by management utilized pre-tax discount rates of 5.96% and 6.11% as of December 31, 2024 and December 31, 2023, respectively, and include observable market inputs, but also include unobservable inputs based on qualitative judgment related to company-specific risk factors. Unrealized gains associated with the derivative asset within the Level 3 category include changes in fair value that were attributable to amendments to the Luminant Power Agreement, changes to the quoted forward electricity rates, as well as unobservable inputs (e.g., changes in estimated usage rates and discount rate assumptions).

Asset retirement obligations

Asset retirement obligations relate to the legal obligations associated with the retirement of long-lived assets that result from the construction, development and/or normal operation of a long-lived asset. We currently have one asset retirement obligation (“ARO”) recorded related to the construction of the data center and installation of the related electrical infrastructure at the Odessa Facility. ASC 410, *Asset Retirement and Environmental Obligations,* requires an entity to record the fair value of a liability for an ARO in the period in which it is incurred if a reasonable estimate of fair value can be made. Due to the long lead time involved until decommissioning activities occur, we use a present value technique to estimate the liability. A liability for the fair value of the ARO based on the expected present value of estimated future decommissioning costs with a corresponding increase to the carrying value of the related long-lived asset (leasehold improvements) was recorded upon commencement of the lease in November 2022. Additionally, an ARO for our Black Pearl Facility will be analyzed and recorded upon completion of construction. The estimated capitalized asset retirement costs are depreciated using the straight-line method over the estimated remaining useful life of the related long-lived asset, with such depreciation included in depreciation expense in the consolidated statements of operations. The ARO is accreted based on the original discount rate and is recognized as an increase in the carrying amount of the liability and as a charge to accretion expense, which is included in depreciation expense in the consolidated statements of operations. Annually, or more frequently if an event occurs that would dictate a change in assumptions or estimates underlying the obligation, management reassesses the ARO to determine whether any revisions to the obligation are necessary. Revisions to the estimated ARO for items such as (i) new liabilities incurred, (ii) liabilities settled during the period and (iii) revisions to estimated future cash flow requirements (if any), will result in adjustments to the related capitalized asset and corresponding liability.

In order to determine the fair value of the ARO, management made certain estimates and assumptions including, among other things, projected cash flows, the borrowing interest rate and an assessment of market conditions that could significantly impact the estimated fair value. These estimates and assumptions are subjective.

Investment in equity investees

We account for investments using the equity method of accounting if the investments provide us with the ability to exercise significant influence, but not control, over our investees. Significant influence is generally deemed to exist if we have an ownership interest in the voting stock of an investee of between 20 percent and 50 percent, or an ownership interest greater than three to five percent in certain partnerships, unincorporated joint ventures and limited liability companies, although other factors are considered in determining whether the equity method of accounting is appropriate. Under this method, an investment in the common stock of an investee (including a joint venture) shall be initially measured and recorded at cost; however, an investor shall initially measure at fair value an investment in the common stock of an investee (including a joint venture) recognized upon the derecognition of a distinct nonfinancial asset at the time that control over the distinct nonfinancial asset is transferred to the equity investee, such as that which occurs upon our transfer of miners and mining equipment to a joint venture.

Our investments are subsequently adjusted to recognize our share of net income or losses as they occur. We also adjust our investments upon receipt of bitcoin from an equity investee, which is accounted for as a distribution-in-kind. Our share of investees' earnings or losses is recorded, net of taxes, within equity in losses of equity investees on the consolidated statements of operations. Additionally, our interest in the net assets of our equity method investees is reflected on the consolidated balance sheets. If, upon our contribution of nonfinancial assets to a joint venture, there is any difference between the cost of the investment and the amount of the underlying equity in the net assets of the investee, the difference is required to be accounted for as if the investee were a consolidated subsidiary. If the difference is assigned to depreciable or amortizable assets or liabilities, then the difference should be amortized or accreted in connection with the equity earnings based on our proportionate share of the investee's net income or loss. If we are unable to relate the difference to specific accounts of the investee, the difference should be considered goodwill.

We consider whether the fair value of our equity method investments have declined below their carrying values whenever adverse events or changes in circumstances indicate that recorded values may not be recoverable. If we considered any such decline to be other than temporary (based on various factors, including historical financial results, success of the mining operations and the overall health of the investee's industry), then we would record a write-down to the estimated fair value.

Impairment of long-lived assets

Management reviews long-lived assets, including leases and investments, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset, asset group, or investment may not be recoverable.

Recoverability of assets to be held and used are measured by a comparison of the carrying amount of an asset to undiscounted future cash flows expected to be generated by the asset. Because the impairment test for long-lived assets held in use is based on estimated undiscounted cash flows, there may be instances where an asset or asset group is not considered impaired, even when its fair value may be less than its carrying value, because the asset or asset group is recoverable based on the cash flows to be generated over the estimated life of the asset or asset group. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

Leases

We account for leases in accordance with ASC 842, *Leases*. Accordingly, management determines whether an arrangement contains a lease at the inception of the arrangement. If a lease is determined to exist, the term of such lease is assessed based on the date on which the underlying asset is made available for our use by the lessor. Management's assessment of the lease term reflects the non-cancelable term of the lease, inclusive of any rent-free periods and/or periods covered by early-termination options which we are reasonably certain of not exercising, as well as periods covered by renewal options which we are reasonably certain of exercising. We also determine lease classification as either operating or finance at lease commencement, which governs the pattern of expense recognition and the presentation reflected in the consolidated statements of operations over the lease term.

For leases with a term exceeding 12 months, a lease liability is recorded on our consolidated balance sheet at lease commencement reflecting the present value of our fixed minimum payment obligations over the lease term. A corresponding right-of-use ("ROU") asset equal to the initial lease liability is also recorded, adjusted for any accrued or prepaid rents and/or unamortized initial direct costs incurred in connection with execution of the lease and reduced by any lease incentives received. For purposes of measuring the present value of our fixed payment obligations for a given lease, we use our incremental borrowing rate, determined based on information available at lease commencement, if rates implicit in our leasing arrangements are not readily determinable. Our incremental borrowing rate reflects the rate we would pay to borrow on a secured basis and incorporates the term and economic environment of the associated lease. ROU assets will be reviewed for impairment, consistent with other long-lived assets, whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Lease expense for operating leases is recognized on a straight-line basis over the lease term as an operating expense while the expense for finance leases is recognized as depreciation expense and interest expense using the interest method of recognition. For leases with a term of 12 months or less, any fixed payments are recognized on a straight-line basis over the lease term and are not recognized on the Company's consolidated balance sheet as an accounting policy election. Leases qualifying for the short-term lease exception are insignificant. Variable lease costs are expensed as incurred and are not included in the measurement of ROU assets and lease liabilities.

ASC 842 provides practical expedients for an entity's ongoing accounting. The Company elected the practical expedient not to separate lease and non-lease components for all leases, which means all consideration that is fixed, or in-substance fixed, relating to the non-lease components will be captured as part of the Company's lease components for balance sheet purposes.

Revenue recognition

We recognize revenue under ASC 606, *Revenue from Contracts with Customers*. The core principle of the revenue standard is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The following five steps are applied to achieve that core principle:

- Step 1: Identify the contract with the customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognize revenue when the company satisfies a performance obligation

In order to identify the performance obligations in a contract with a customer, a company must assess the promised goods or services in the contract and identify each promised good or service that is distinct. A performance obligation meets ASC 606's definition of a "distinct" good or service (or bundle of goods or services) if both of the following criteria are met: The customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer (i.e., the good or service is capable of being distinct), and the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract (i.e., the promise to transfer the good or service is distinct within the context of the contract).

If a good or service is not distinct, the good or service is combined with other promised goods or services until a bundle of goods or services is identified that is distinct. The transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer. The consideration promised in a contract with a customer may include fixed amounts, variable amounts, or both. When determining the transaction price, an entity must consider the effects of all of the following:

- Variable consideration

- Constraining estimates of variable consideration
- The existence of a significant financing component in the contract
- Noncash consideration
- Consideration payable to a customer

Variable consideration is included in the transaction price only to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The transaction price is allocated to each performance obligation on a relative standalone selling price basis. The standalone selling price is the price at which we would sell a promised service separately to a customer. The relative selling price for each performance obligation is estimated using observable objective evidence if it is available. If observable objective evidence is not available, we use our best estimate of the selling price for the promised service. In instances where we do not sell a service separately, establishing standalone selling price requires significant judgment. We estimate the standalone selling price by considering available information, prioritizing observable inputs such as historical sales, internally approved pricing guidelines and objectives, and the underlying cost of delivering the performance obligation. The transaction price allocated to each performance obligation is recognized when that performance obligation is satisfied, at a point in time or over time as appropriate.

Management judgment is required when determining the following: when variable consideration is no longer probable of significant reversal (and hence can be included in revenue); whether certain revenue should be presented gross or net of certain related costs; when a promised service transfers to the customer; and the applicable method of measuring progress for services transferred to the customer over time.

We enter into a bitcoin mining pools by executing a contract, which may be amended from time to time, with a mining pool operator to provide computing power to the mining pool. Providing computing power to a mining pool operator for the purpose of cryptocurrency transaction verification is an output of our ordinary activities. The contract is terminable at any time by either party with no substantive termination penalty. Our enforceable right to compensation begins when, and lasts for as long as, we provide computing power to the mining pool operator; our performance obligation extends over the contract term given our continuous provision of hashrate. This period of time corresponds with the period of service for which the mining pool operator determines compensation due to us. Given cancellation terms of the contract, and our customary business practice, the contract effectively provides us with the option to renew for successive contract terms of 24 hours. The options to renew are not material rights because they are offered at the standalone selling price of computing power. We elected the optional exemption to not disclose the transaction price allocated to remaining performance obligations that are part of a contract that has an original expected duration of one year or less.

The provision of computing power in accordance with the mining pool operator's terms of service is the only performance obligation in our contract with the mining pool operator, our customer. In exchange for providing computing power pursuant to Foundry's terms of service, we are entitled to noncash consideration in the form of bitcoin, measured under the Full Pay Per Share ("FPPS") approach. Under the FPPS approach, we are entitled to a fractional share of the fixed bitcoin award from the mining pool operator (referred to as a "block reward") and potentially transaction fees generated from (paid by) blockchain users and distributed (paid out) to individual miners by the mining pool operator. Our fractional share of the block reward is based on the proportion of computing power we contributed to the mining pool operator to the total computing power contributed by all mining pool participants in solving the current algorithm, over the contract term. We are entitled to our relative share of consideration even if a block is not successfully placed. In other words, we receive consideration once after the end of each 24-hour contract period, regardless of whether the pool successfully places a block. Our proportionate share of transaction fees is based on our contributed share of hashrate as a percentage of total network hashrate during the contract term.

Noncash consideration is measured at fair value at contract inception. Fair value of the bitcoin consideration is determined using the quoted price on our principal market for bitcoin at the beginning of the contract period at the single bitcoin level (one bitcoin). This amount is recognized in revenue over the contract term as hashrate is provided. Changes in the fair value of the noncash consideration due to form of the consideration (changes in the market price of bitcoin) are not included in the transaction price and hence are not included in revenue. Changes in fair value of the noncash consideration post-contract inception that are due to reasons other than form of consideration (other than changes in the market value of bitcoin) are measured based on the guidance on variable consideration, including the constraint on estimates of variable consideration.

Because the consideration to which we expect to be entitled for providing computing power is entirely variable, as well as being noncash consideration, we assess the estimated amount of the variable noncash consideration at contract inception and subsequently, to determine when and to what extent it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur once the uncertainty associated with the variable consideration is subsequently resolved (the “constraint”). Only when significant revenue reversal is concluded probable of not occurring can estimated variable consideration be included in revenue. Based on evaluation of likelihood and magnitude of a reversal in applying the constraint, the estimated variable noncash consideration is constrained from inclusion in revenue until the end of the contract term, when the underlying uncertainties have been resolved and number of bitcoin to which we are entitled becomes known.

There is no significant financing component in these transactions.

Our ability to satisfy the performance obligation under our contract with a mining pool operator to provide computing power may be contracted to various third parties and there is a risk that if these parties are unable to perform or curtail their operations, our revenue and operating results may be affected. Please see “*Business— Business Agreements— Luminant Power Agreement*” for additional information about our power arrangements.

Short-term borrowings

Short-term borrowings includes debt with maturity dates less than one year. We elected the fair value option for debt denominated in bitcoin. The change in fair value for bitcoin denominated debt is recorded in Other income (expense).

Share-based compensation

We account for all share-based payments to employees, consultants and directors, which may include grants of stock options, stock appreciation rights, restricted stock awards, and restricted stock units (“RSUs”) to be recognized in the consolidated financial statements, based on their respective grant date fair values. As of December 31, 2023, we have awarded only RSUs with service-based vesting conditions (“Service- Based RSUs”) and performance-based RSUs with market-based vesting conditions (“Performance-Based RSUs”). Compensation expense for all awards is amortized based upon a graded vesting method over the estimated requisite service period. All share-based compensation expenses are recorded in general and administrative expense in the consolidated statements of operations. Forfeitures are recorded as they occur.

The fair value of Service-Based RSUs is the closing market price of our common stock on the date of the grant. We employ a Monte Carlo simulation technique to calculate the fair value of the Performance-Based RSUs on the date granted based on the average of the future simulated outcomes. The Performance-Based RSUs contain different market-based vesting conditions that are based upon the achievement of certain market capitalization milestones. Under the Monte Carlo simulation model, a number of variables and assumptions are used including, but not limited to, the underlying price of our common stock, the expected stock price volatility over the term of the award, a correlation coefficient, and the risk-free rate. The Performance-Based RSUs awarded do not have an explicit requisite service period, therefore compensation expense is recorded over a derived service period based upon the estimated median time it will take to achieve the market capitalization milestone using a Monte Carlo simulation.

Weighted average assumptions used in the November 17, 2021 Monte Carlo valuation model for Performance-Based RSUs awarded on that date were: expected volatility of 96.1% and a risk-free rate of 1.60% based upon a remaining term of 10 years. These assumptions were used to estimate share-based compensation expense related to our Performance-Based RSUs, which was recognized in our consolidated financial statements years ended December 31, 2024 and December 31, 2023, and which will continue to impact our consolidated financial results over the remaining weighted average derived service period of the Performance-Based RSUs, which, as of December 31, 2024 is expected to occur over the next 0.5 years.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We were a smaller reporting company as defined by Rule 12b-2 of the Exchange Act, as of June 30, 2024, the last business day of our most recently completed second fiscal quarter, and are not required to provide the information under this item.

Item 8. Financial Statements and Supplementary Data.

The financial statements required to be filed pursuant to this Item 8 are appended to this report. An index of those financial statements is found in Item 15 of Part IV of this Annual Report.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of Disclosure Controls and Procedures

We conducted an evaluation of the effectiveness of our “disclosure controls and procedures” (“Disclosure Controls”), as defined by Rules 13a-15(e) and 15d-15(e) of the Exchange Act, as of December 31, 2024, the end of the period covered by this Annual Report. The Disclosure Controls evaluation was done under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, with the goal being that the information required to be disclosed by us in reports filed under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms and (ii) accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding disclosure. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, our disclosure controls and procedures were not effective at the reasonable assurance level as of December 31, 2024.

As further discussed below under “Management’s Annual Report on Internal Control Over Financial Reporting,” management has identified a material weakness, as set forth below. The Company has developed a remediation plan for the weaknesses, which is described below under “Remediation of Material Weakness.” As a result of such material weakness, the report of the Company’s independent registered public accounting firm for the fiscal year ended December 31, 2024, Marcum LLP, regarding its audit of the Company’s internal control over financial reporting as of December 31, 2024, which is included below under the heading “Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting,” expresses an adverse opinion on the Company’s internal control over financial reporting as of December 31, 2024.

Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our management is also required to assess and report on the effectiveness of our internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 (“Section 404”). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes of accounting principles generally accepted in the United States.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of the company's financial reporting.

Our management, with the participation of our principal executive officer and principal financial officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2024. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control - Integrated Framework in the 2013 COSO framework. Based on this evaluation, management previously identified a weakness in internal control over financial reporting related to Information Technology General Controls ("ITGC"). Specifically, the Company did not complete design and implementation of program change management controls for certain financially relevant systems to ensure that IT program and data changes affecting the Company's (i) financial IT applications and (ii) digital currency mining equipment, are identified, tested, authorized and implemented appropriately to validate that data produced by its relevant IT system(s) were complete and accurate. Automated process-level and manual controls related to revenue recognition that are dependent upon the information derived from such financially relevant systems were also determined to be ineffective as a result of such deficiency.

The material weakness described above did not result in a material misstatement to the Company's previously issued consolidated financial statements, nor in the consolidated financial statements included in this Annual Report.

The registered public accounting firm that audited our consolidated financial statements within this Annual Report has issued an attestation report on our internal control over financial reporting.

Remediation of Material Weakness

As noted above, during management's assessment of internal controls over financial reporting ("ICFR") a material weakness was identified related to certain ITGCs over change management controls.

As management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, we understand the importance of developing a resolution plan aligned with management and overseen by the Audit Committee of our Board of Directors. During the year ended December 31, 2024, management implemented measures that remediated previously identified material weaknesses disclosed in the Company's Annual Reports on Form 10-K for the years ended December 31, 2022 and December 31, 2023 related to certain ITGCs over user access and segregation of duties by implementing system-level segregation of duties, using an external third-party internal audit and SOX 404 implementation consulting firm to improve the Company's controls related to user access and segregation of duties, enhancing design and documentation related to governance over user access processes and related control activities, and developing robust processes to validate data received from third-parties and relied upon to generate financial statements that are complete and accurate.

Since the material weakness related to certain ITGCs over change management controls and lack of related compensating automated process-level and manual controls was identified, management has continued to implement and refine measures designed to ensure that control deficiencies contributing to the material weakness are remediated, such that these controls are designed, implemented, and operating effectively. During the year ended December 31, 2024, management enhanced its existing program change management controls for certain systems impacting the Company's processes around revenue recognition and design of manual key reconciliation processes. The Company made progress but work remains to ensure reliability of such controls. Our plan includes the following, and management will continue to assess additional opportunities for remediation on an ongoing basis:

- Enhance our remediation efforts by continuing to devote resources in 2025 in key financial reporting and information technology areas, including hiring additional employees.
- Continue using an external third-party internal audit and SOX 404 implementation consulting firm to improve the Company's controls related to the material weakness described above.
- Continue to implement new processes and controls and engage external resources when required in connection with remediating this material weakness, such that these controls are designed, implemented, and operating effectively.

We recognize that the material weakness in our internal control over financial reporting will not be considered remediated until the remediated controls operate for a sufficient period of time and can be tested and concluded by management to be designed and operating effectively. Because our remediation efforts involve our outsourced service providers, we cannot provide any assurance that these remediation efforts will be successful or that our internal control over financial reporting will be effective as a result of these efforts.

We continue to evaluate and work to improve our internal control over financial reporting related to the identified material weakness and management may determine to take additional measures to address control deficiencies or determine to modify the remediation plan described above. In addition, we report the progress and status of the above remediation efforts to the Audit Committee on a periodic basis.

Changes in Internal Control over Financial Reporting

Other than the remediation efforts described above, there were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended December 31, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL OVER FINANCIAL REPORTING FIRM

To the Shareholders and Board of Directors of
Cipher Mining Inc.

Adverse Opinion on Internal Control over Financial Reporting

We have audited Cipher Mining Inc.'s (the "Company") internal control over financial reporting as of December 31, 2024, based on criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, because of the effect of the material weakness described in the following paragraph on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2024, based on criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

A material weakness is a control deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weakness has been identified and included in "Management's Annual Report on Internal Control Over Financial Reporting":

> The Company did not complete design and implementation of program change management controls for certain financially relevant systems to ensure that IT program and data changes affecting the Company's (i) financial IT applications and (ii) digital currency mining equipment, are identified, tested, authorized and implemented appropriately to validate that data produced by its relevant IT system(s) were complete and accurate. Automated process-level and manual controls related to revenue recognition that are dependent upon the information derived from such financially relevant systems were also determined to be ineffective as a result of such deficiency.

This material weakness was considered in determining the nature, timing and extent of audit tests applied in our audit of the fiscal December 31, 2024 consolidated financial statements, and this report does not affect our report dated February 25, 2025 on those financial statements.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets as of December 31, 2024 and December 31, 2023, and the related consolidated statements of operations, changes in stockholders' equity (deficit), and cash flows for each of the two years in the period ended December 31, 2024 of the Company and our report dated February 25, 2025 expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management Annual Report on Internal Control Over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that degree of compliance with the policies or procedures may deteriorate.

/s/ Marcum LLP

Marcum LLP

San Francisco, CA

February 25, 2025

Item 9B. Other Information.

(a) Disclosure in lieu of reporting on a Current Report on Form 8-K.

None.

(b) Material changes to the procedures by which security holders may recommend nominees to the board of directors.

None.

(c) Insider trading arrangements and policies.

Our officers and directors from time to time may adopt, terminate or modify trading plans to transact in our common stock for a variety of reasons, including tax considerations, investment diversification, or other personal reasons. During the three months ended December 31, 2024, certain of our officers and directors terminated a pre-arranged stock trading plan intended to satisfy the affirmative defense of Rule 10b5-1(c) under the Securities Exchange Act of 1934, as amended (each such plan, a “Rule 10b5-1 Plan”), as described below. On October 10, 2024, Tyler Page, Chief Executive Officer and Director, terminated a Rule 10b5-1 Plan intended to satisfy the affirmative defense of Rule 10b5-1(c) covering the sale of up to 900,000 shares of our common stock until November 29, 2024. On November 7, 2024, William Iwaschuk, Co-President, Chief Legal Officer and Corporate Secretary, terminated a Rule 10b5-1 Plan intended to satisfy the affirmative defense of Rule 10b5-1(c) covering the sale of up to 323,694 shares of our common stock until June 10, 2025. On November 8, 2024, Patrick Kelly, Co-President and Chief Operating Officer, terminated a Rule 10b5-1 Plan intended to satisfy the affirmative defense of Rule 10b5-1(c) covering the sale of up to 428,078 shares of our common stock until May 16, 2025. No other directors or “officers” (as defined in Rule 16a-1(f) under the Exchange Act) adopted, terminated or modified a “Rule 10b5-1 trading arrangement” or “non-Rule 10b5-1 trading arrangement,” as each term is defined in Item 408 of Regulation S-K during the three months ended December 31, 2024.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not Applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The following table provides information regarding our executive officers and members of our board of directors (ages as of the date of this Annual Report):

Name	Age	Title
Tyler Page	49	Chief Executive Officer and Director
Edward Farrell	64	Chief Financial Officer
Patrick Kelly	46	Co-President and Chief Operating Officer
William Iwaschuk	49	Co-President, Chief Legal Officer and Corporate Secretary
James Newsome	65	Chairman of the Board
Robert Dykes	75	Director
Holly Morrow Evans	49	Director
Robert Flatley	64	Director
Cary Grossman	71	Director
Caitlin Long	55	Director
Wesley (Bo) Williams	48	Director

Executive Officers

Tyler Page has served as Cipher's Chief Executive Officer and as a member of the Board since August 2021. From 2020 to 2021, Mr. Page served as Head of Business Development for digital asset infrastructure at Bitfury Holding, where he was responsible for business development and strategic planning work of the Bitfury Group. He brings more than 20 years of experience in institutional finance and fintech, including as a member of the Management Committee and Head of Client Strategies at New York Digital Investment Group (NYDIG), from 2017 to 2019, and as Head of Institutional Sales at Stone Ridge Asset Management, from 2016 to 2019. Previously, he served as Global Head of Business Development for Fund Solutions at Guggenheim Partners in New York and London, as well as in various roles on derivatives teams at Goldman Sachs and Lehman Brothers. He began his career as an attorney at Davis Polk & Wardwell LLP. He holds a J.D. from the University of Michigan Law School and a B.A. from the University of Virginia. We believe that Mr. Page is well qualified to serve on our board of directors due to his extensive experience in the digital asset industry and his various leadership roles.

Edward Farrell has served as Cipher's Chief Financial Officer since August 2021. Prior to Cipher, from 2003 to 2021, Mr. Farrell held several senior positions at AllianceBernstein, L.P., including Controller, Chief Accounting Officer and Chief Financial Officer. Mr. Farrell brings more than 35 years of financial administration and leadership experience in the financial services industry, including his prior positions at Nomura Securities International and Salomon Brothers. Mr. Farrell started his career at PricewaterhouseCoopers LLP. Mr. Farrell currently serves on the board of directors Arbor Realty Trust, Inc. where he is a member to both their Audit and Compensation Committees, where he has served since 2018. He received his B.B.A. in Business Administration from St. Bonaventure University.

Patrick Kelly has served as Cipher's Chief Operating Officer since August 2021, and as Co-President since March 2023. Prior to Cipher, from 2012 to 2019, Mr. Kelly served as Chief Operating Officer at Stone Ridge Asset Management, LLC. Between 2012 and 2018, he also held several directorship positions with several trusts of Stone Ridge Asset Management. From 2009 to 2012, Mr. Kelly served as Chief Operating Officer of Quantitative Strategies at Magnetar Capital. Prior to that, he served as Head of Portfolio Valuation at D. E. Shaw & Co. Mr. Kelly is a Chartered Financial Analyst (CFA) and received his B.S. in Finance from DePaul University.

William Iwaschuk has served as Cipher's Chief Legal Officer since August 2021, as Corporate Secretary since May 2022 and as Co-President since March 2023. Prior to Cipher, from 2014 to 2020, Mr. Iwaschuk held senior positions at Tower Research Capital LLC, including serving as General Counsel and Secretary (2016-2020) and Counsel (2014-2016). From 2013 to 2014, Mr. Iwaschuk was a Partner in the Investment Management Group of Morgan, Lewis & Bockius LLP in New York. Mr. Iwaschuk also previously served as a Vice-President in the legal department at Goldman Sachs & Co. from 2005 until 2012. He started his career as an equity derivatives associate at Davis Polk & Wardwell LLP in New York. Mr. Iwaschuk also currently serves on the board of directors of the Texas Blockchain Council. Mr. Iwaschuk received his LL.B. and B.A. degrees from The University of British Columbia.

Non-Employee Directors

James Newsome has served as a member of our board of directors since August 2021. Mr. Newsome served on the advisory board of Bitfury Top HoldCo from 2015 until 2021. Mr. Newsome served as president of the New York Mercantile Exchange from August of 2004 until it was acquired by the CME Group in 2009. He subsequently served on the board of CME Group from 2009 until 2011. Mr. Newsome has also previously served on the board of directors of the Dubai Mercantile Exchange and is a former director of the National Futures Association. From 1998 until 2004, Mr. Newsome held various senior roles at the U.S. Commodity Futures Trading Commission (CFTC) from Commissioner (1998 to 2000) to a Chairman of CFTC (2000 to 2004). As a Chairman of CFTC, Mr. Newsome guided the regulation of the nation's futures markets and led the CFTC's regulatory implementation of the Commodity Futures Modernization Act of 2000. He also served as one of four members of the President's Working Group for Financial Markets, along with the Secretary of the Treasury and the Chairmen of the Federal Reserve and the SEC. Mr. Newsome is also presently a founding partner of Delta Strategy Group, a full-service government affairs firm based in Washington, D.C. He earned a B.S. in Economics from the University of Florida, a Masters in Genetics from Mississippi State University and a Ph.D. in Economics from Mississippi State University. We believe that Mr. Newsome is well qualified to serve on our board of directors due to his extensive corporate finance and management experience.

Robert Dykes has served on our board of directors since August 2021. Prior to Cipher, Mr. Dykes served as Director of Bitfury Group Limited (UK) from 2014 until 2020 and was on the advisory board of Bitfury Top HoldCo from 2020 until 2021. From 2008 to 2013, Mr. Dykes served as the Chief Financial Officer, Executive Vice President and Principal Accounting Officer of VeriFone Systems, Inc., a company specializing in retail credit card payment systems. He has more than 30 years of operational management experience, and an established reputation in building world-class organizations. He served as the Chief Financial Officer and Executive Vice President, Business Operations of Juniper Networks Inc., from 2005 to 2007. Mr. Dykes served as the Chief Financial Officer of Flextronics International Ltd., from 1997 to 2004. From 1988 to 1997, Mr. Dykes served as the Executive Vice President of Worldwide Operations and Chief Financial Officer of Symantec Corporation. Mr. Dykes holds a Bachelor of Commerce and Administration Degree from Victoria University in Wellington, New Zealand. We believe that Mr. Dykes is well qualified to serve on our board of directors due to his extensive corporate finance and management experience and his overall public company experience.

Holly Morrow Evans has served on our board of directors since August 2021. Since 2015, Ms. Evans has been a partner at Hakluyt and Company, where she currently serves as the firm's Head of Risk and Deputy Managing Partner. From 2007 to 2013, she was a senior adviser for ExxonMobil. She also served as director on the National Security Council from 2005 to 2007 and as China advisor to the office of the Vice President from 2003 to 2005. Mrs. Evans holds a B.A. in Political Science from Georgetown and an M.A. in Asian Studies from Harvard University. We believe that Mrs. Evans is well qualified to serve on our board of directors due to her extensive advisory experience.

Robert Flatley has served on our board of directors since August 2023. Since 2021, Mr. Flatley has served as a director, the Chief Executive Officer and founder of TS Imagine, which was formed following the merger of Trading Screen and Imagine Software. From 2018 to 2019, Mr. Flatley served as a director and as President, Chief Financial Officer and Chief Operating Officer at New York Digital Investment Group (NYDIG). From 2010 to 2018, he served as a director and Chief Executive Officer of CoreOne Technologies. Earlier in his career, Mr. Flatley was a Managing Director at both Deutsche Bank Securities, and at Banc of America Securities. He has hands-on experience in various capital markets roles, including trading, securities and prime finance, building SaaS business models, market structure, quantitative trading, software development, and software M&A. He founded successful companies as a technology entrepreneur using both software and data-as-a-service models, and he was a founding employee of two statistically driven trading businesses at bulge bracket financial institutions. He earned a B.B.A. in Accounting from the University of Iowa. We believe that Mr. Flatley is well qualified to serve on our board of directors due to his extensive experience in regulated financial services institutions and as a founder of four successful fintech companies.

Cary Grossman has served as a member of our board of directors since August 2021. Mr. Grossman co-founded GWAC in 2020 and served as its President and a member of its board of directors from June 2020 through August 2021. Mr. Grossman also served as CEO, President, Chief Financial Officer and a member of the board of directors of Good Works II Acquisition Corp. during the period from February 2021 through February 2023. Mr. Grossman is a veteran corporate finance professional with a combination of executive management, investment banking and public accounting experience. In 2010, Mr. Grossman co-founded Shoreline Capital Advisors, Inc., an advisory firm focused on providing financial advisory services to middle-market companies. Prior to Shoreline Capital Advisors, from 1991 to 2002, Mr.

Grossman co-founded and was the CEO of another investment banking firm, McFarland, Grossman & Company. Earlier in his career, he practiced public accounting for 15 years. Mr. Grossman also held a number of executive positions, including: President of XFit, Inc. from 2019 to 2020; Chief Financial Officer of Blaze Metals, LLC from 2007 to 2010; Executive Vice President, Chief Financial Officer and Chief Operating Officer of Gentium, S.P.A. from 2004 to 2006; Chief Executive Officer of ERP Environmental Services, Inc. and Chief Financial Officer of U.S. Liquids, Inc. from 2001 to 2003. He also co-founded Pentacon, Inc. (NYSE: JIT) and served as a board member and Executive Chairman from 1998 until 2002, and as a director of Metalico (NYSE: MEA) from 2014 until 2015 and INX Inc. (Nasdaq: INXI) from 2004 until 2011. Mr. Grossman is a Certified Public Accountant and earned a B.B.A. in Business Administration from the University of Texas. We believe that Mr. Grossman is well qualified to serve on our board of directors due to his extensive corporate finance and management experience and his overall public company experience.

Caitlin Long has served as a member of our board of directors since August 2021. Ms. Long has extensive experience in both traditional financial services and cryptocurrencies. She is the Founder and Chief Executive Officer of Custodia Bank, Inc. (formerly Avanti Financial Group, Inc.), a chartered bank that she founded in 2020 to serve as a compliant bridge between the U.S. dollar and cryptocurrency financial systems. From 2016 to 2018, Ms. Long served as the Chairman and President of Symbiont.io, an enterprise fintech company that utilizes blockchain technology. Beginning in 2017 she helped lead the charge in her native state of Wyoming to enact more than 20 blockchain-enabling laws during consecutive legislative sessions, and in 2018 she was appointed by two Wyoming Governors to serve on related legislative committees. She worked at investment banks in New York and Zurich from 1994 to 2016, where she held senior roles as a Managing Director at Morgan Stanley and Credit Suisse. Ms. Long earned a B.A. from the University of Wyoming and a joint J.D./ M.P.P. degree from Harvard Law School and Harvard Kennedy School of Government. We believe that Ms. Long is well qualified to serve on our board of directors due to her extensive digital asset experience, her legal and regulatory expertise, and her prior experience working with public companies.

Wesley Williams has served on our board of directors since August 2021. Mr. Williams brings over 25 years of experience in corporate finance. Since 2021, Mr. Williams has served as the Head of Aquarian Credit Partners, the syndicated high yield credit investing arm of insurance holding company Aquarian Holdings. Beginning in 2017, he served as Portfolio Manager, Chief Operating Officer, and a member of the Board of Managers of Gallatin Loan Management, a high yield credit investment management firm. From 2013 until 2016, Mr. Williams was a founding partner of Hildene Leveraged Credit, until its sale to affiliates of Fortress Investment Group. From 2010 through 2012, he worked as a turnaround Operating Partner, Interim CFO, and Shareholder Representative for Goldman Sachs portfolio companies. From 2006 until 2008, Mr. Williams worked as a Vice President of specialty finance and leveraged credit at Marathon Asset Management, a high yield credit investment manager. From 1999 through 2005, Mr. Williams also held various roles in the Investment Banking and Merchant Banking Divisions of Goldman Sachs. He holds an AB in Sociology from Harvard College and an MBA from Harvard Business School. We believe that Mr. Williams is well qualified to serve on our board of directors due to his extensive corporate finance and overall management experience.

Family Relationships

There are no family relationships among our directors or executive officers.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our code of business conduct and ethics is available under the Corporate Governance section of our website at *https://investors.ciphermining.com*. In addition, we intend to post on our website all disclosures that are required by law or the Nasdaq rules concerning any amendments to, or waivers from, any provision of the code. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be a part of this Annual Report.

The remaining information required by this item will be included in our definitive proxy statement for our 2025 Annual Meeting of Stockholders (the "2025 Proxy Statement"), to be filed with the SEC no later than 120 days after December 31, 2024, and is incorporated herein by reference.

Item 11. Executive Compensation.

The information required by this item will be included in the 2025 Proxy Statement and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item will be included in the 2025 Proxy Statement and is incorporated herein by reference

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item will be included in the 2025 Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information required by this item will be included in the 2025 Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed/ Furnished Herewith
		From	File No	Exhibit	Filing Date	
2.1†	Agreement and Plan of Merger, dated as of March 4, 2021, by and among Good Works Acquisition Corp., Currency Merger Sub, Inc. and Cipher Mining Technologies Inc.	8-K	001-39625	2.1	3/5/21	
3.1	Second Amended and Restated Certificate of Incorporation of Cipher Mining Inc.	8-K	001-39625	3.1	8/31/21	
3.2	Amended and Restated Bylaws of Cipher Mining Inc.	8-K	001-39625	3.2	8/31/21	
4.1	Specimen Warrant Certificate of Good Works Acquisition Corp.	S-1/A	333-248333	4.3	10/9/21	
4.2	Warrant Agreement, dated as of October 19, 2020, by and between Continental Stock Transfer & Trust Company and Good Works Acquisition Corp.	8-K	001-39625	4.1	10/28/20	
4.3	Description of Capital Stock	10-K	001-39625	4.3	3/4/22	
4.4	Form of Debt Indenture	S-3AS R	333-281908	4.4	9/3/24	
10.1	Amended and Restated Registration Rights Agreement among Good Works Acquisition Corp., Good Works Acquisition Corp.' directors, Bitfury Top HoldCo and others, dated August 26, 2021	8-K	001-39625	10.2	8/31/21	
10.2#	Form of Indemnification and Advancement Agreement for Cipher Mining Inc.	S-4/A	333-256115	10.16	6/15/21	
10.3#	Form of Indemnification and Advancement Agreement for Cipher Mining Technologies Inc.	S-4/A	333-256115	10.17	6/15/21	
10.4#	Cipher Mining Incentive Award Plan	8-K	001-39625	10.8	8/31/21	
10.5#	Form of Cipher Mining Inc. Restricted Stock Grant Notice and Restricted Stock Agreement under Incentive Award Plan	8-K	001-39625	10.8(a)	8/31/21	
10.6#	Form of Cipher Mining Inc. Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under Incentive Award Plan	8-K	001-39625	10.8(b)	8/31/21	
10.7#	Form of Cipher Mining Inc. Stock Option Grant Notice and Stock Option Agreement under Incentive Award Plan	8-K	001-39625	10.8(c)	8/31/21	
10.8	Form of Cipher Mining Inc. Executive Officer Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement (Double Trigger) under Incentive Award Plan	8-K	001-39625	10.1	9/15/22	
10.9	Power Purchase Agreement, dated June 23, 2021, by and between Luminant ET Services Company LLC and Cipher Mining Technologies Inc.	S-4/A	333-256115	10.22	7/9/21	
10.10	First Amendment to the Power Purchase Agreement, dated July 9, 2021, by and between Luminant ET Services Company LLC and Cipher Mining Technologies Inc.	S-4/A	333-256115	10.23	7/9/21	
10.11	Second Amendment to the Power Purchase Agreement, dated February 28, 2022, by and between Luminant ET Services Company LLC and Cipher Mining Technologies Inc.	10-K	001-39625	10.35	3/4/22	

10.12	Third Amendment to the Power Purchase Agreement, dated August 26, 2022, by and between Luminant ET Services Company LLC and Cipher Mining Technologies Inc.	8-K	001-39625	10.1	9/1/22
10.13	Fourth Amendment to the Power Purchase Agreement, dated August 23, 2023, by and between Luminant ET Services Company LLC and Cipher Mining Technologies Inc.	8-K	001-39625	10.1	8/29/23
10.14	Lease Agreement, dated June 29, 2021, by and between an affiliate of Luminant and Cipher Mining Technologies Inc.	S-4/A	333-256115	10.24	7/9/21
10.15	First Amendment to the Lease Agreement, dated July 9, 2021, by and between an affiliate of Luminant and Cipher Mining Technologies Inc.	S-4/A	333-256115	10.25	7/9/21
10.16	Second Amendment to the Lease Agreement, dated August 23, 2023, by and between an affiliate of Luminant and Cipher Mining Technologies Inc.	8-K	001-39625	10.2	8/29/23
10.17	Purchase and Sale Agreement, dated June 28, 2021, by and between Vistra Operations Company LLC and Cipher Mining Technologies Inc.	S-4/A	333-256115	10.26	7/9/21
10.18	First Amendment to the Purchase and Sale Agreement, dated July 9, 2021, by and between Vistra Operations Company LLC and Cipher Mining Technologies Inc.	S-4/A	333-256115	10.27	7/9/21
10.19	Framework Agreement, dated June 10, 2021, by and between WindHQ LLC and Cipher Mining Technologies Inc.	S-4/A	333-256115	10.24	6/15/21
10.20	Non-Fixed Price Sales and Purchase Agreement, dated August 20, 2021	8-K	001-39625	10.1	9/2/21
10.21	Supplemental Agreement to Non-Fixed Price Sales and Purchase Agreement, dated August 30, 2021	8-K	001-39625	10.2	9/2/21
10.22	Amended and Restated Framework Agreement on Supply of Blockchain Servers, dated May 6, 2022	8-K	001-39625	10.1	5/10/22
10.23	Supplementary Agreement of the Framework Agreement on Supply of Blockchain Servers, dated November 4, 2022	8-K	001-39625	10.1	11/8/22
10.24#	Employment Agreement, dated as of May 11, 2021, by and between Tyler Page and Cipher Mining Technologies Inc.	S-4	333-256115	10.23	5/14/21
10.25#	Employment Agreement, dated as of May 11, 2021, by and between Edward Farrell and Cipher Mining Technologies Inc.	S-4	333-256115	10.24	5/14/21
10.26#	Employment Agreement, dated as of May 11, 2021, by and between William Iwaschuk and Cipher Mining Technologies Inc.	S-4	333-256115	10.25	5/14/21
10.27#	Employment Agreement, dated as of May 11, 2021, by and between Patrick Kelly and Cipher Mining Technologies Inc.	S-4	333-256115	10.26	5/14/21
10.28	Purchase Order No. 21-041, dated December 29, 2021	8-K	001-39625	10.1	01/04/22
10.29#	Amended and Restated Non-Employee Directors Compensation Policy.	10-Q	001-39625	10.1	8/13/24
10.30	Form of LLC Agreement	10-K	001-39625	10.34	3/4/22
10.31	Amendment No. 1 to Controlled Equity OfferingSM Sales Agreement by and among Cipher Mining Inc. and Cantor Fitzgerald & Co., Canaccord Genuity LLC, Compass Point Research & Trading, LLC, Needham & Company, LLC, Stifel, Nicolaus & Company, Incorporated and Virtu Americas LLC, dated March 6, 2024	8-K	001-39625	1.1	3/6/24

10.32	Amended and Restated Controlled Equity OfferingSM Sales Agreement by and among Cipher Mining Inc. and Cantor Fitzgerald & Co., Canaccord Genuity LLC, Compass Point Research & Trading, LLC, Needham & Company, LLC, Keefe, Bruyette & Woods, Inc., Virtu Americas LLC and BTIG, LLC, dated September 3, 2024	8-K	001-39625	1.1	9/4/24	
10.33	Board Observer Agreement, dated as of April 8, 2022.	8-K	001-39625	99.2	4/14/22	
10.34†	Purchase and Sale agreement, dated as of November 6, 2023, by and between Cipher Black Pearl LLC and Trinity Mining Group, Inc.	10-K	001-39625	10.33	3/5/24	
10.35†	Data Center Lease, dated as of December 6, 2023.	10-K	001-39625	10.34	3/5/24	
10.36†	Assignment and Assumption Agreement, dated as of December 8, 2023, by and between Cipher Black Pearl LLC and Trinity Mining Group, Inc.	10-K	001-39625	10.35	3/5/24	
10.37†	Future Sales and Purchase Agreement, dated as of December 16, 2023, by and between Cipher Mining Infrastructure LLC and Bitmain Technologies Delaware Limited.	10-K	001-39625	10.36	3/5/24	
10.38	Supplemental Agreement to the Future Sales and Purchase Agreement, dated June 5, 2024, by and between Cipher Mining Infrastructure LLC and Bitmain Technologies Delaware Limited	10-Q	001-39625	10.2	8/13/24	
10.39	Amendment Agreement to the Future Sales and Purchase Agreement, dated July 10, 2024, by and between Cipher Mining Infrastructure LLC and Bitmain Technologies Delaware Limited	10-Q	001-39625	10.3	8/13/24	
10.40^	Subscription Agreement, dated January 30, 2025, by and between Cipher Mining Inc. and Star Beacon LLC	8-K	001-39625	10.1	1/30/25	
10.41	Registration Rights Agreement, dated January 30, 2025, by and between Cipher Mining Inc. and Star Beacon LLC	8-K	001-39625	10.2	1/30/25	
19.1	Insider Trading Compliance Policy					*
21.1	List of Subsidiaries of Cipher Mining Inc.					*
23.1	Consent of Marcum LLP, Independent Registered Public Accounting Firm.					*
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a).					*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a).					*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350.					**
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350.					**
97.1	Compensation Recoupment Policy	10-K	001-39625	97.1	3/5/24	
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document					*
101.SCH	Inline XBRL Taxonomy Extension Schema Document					*
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					*

* Filed herewith.
** Furnished herewith.
# Indicates management contract or compensatory plan.

† Certain confidential portions (indicated by brackets and asterisks) have been omitted from this exhibit pursuant to Item 601(b)(10)(iv) of Regulation S-K because such information is both (i) non-material and (ii) would be competitively harmful if publicly disclosed.

^ Certain schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The registrant undertakes to provide copies of any of the omitted schedules or exhibits upon request by the Securities and Exchange Commission.

Item 16. Form 10-K Summary.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized**.**

CIPHER MINING INC.

Date: February 25, 2025	By:	/s/ Tyler Page
		Tyler Page
		Chief Executive Officer
		(Principal Executive Officer)
Date: February 25, 2025	By:	/s/ Edward Farrell
		Edward Farrell
		Chief Financial Officer
		(Principal Financial Officer and Principal Accounting Officer)

SIGNATURES AND POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Tyler Page, Edward Farrell and William Iwaschuk, and each of them, his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments to this Annual Report on Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, authorizing said persons and granting unto said attorneys-in-fact and agents, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all said attorneys-in-fact and agents, or his substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Tyler Page Tyler Page	Director, Chief Executive Officer *(Principal Executive Officer)*	February 25, 2025
/s/ Edward Farrell Edward Farrell	Chief Financial Officer *(Principal Financial and Accounting Officer)*	February 25, 2025
/s/ James Newsome James Newsome	Chairman of the Board	February 25, 2025
/s/ Robert Dykes Robert Dykes	Director	February 25, 2025
/s/ Holly Morrow Evans Holly Morrow Evans	Director	February 25, 2025
/s/ Robert Flatley Robert Flatley	Director	February 25, 2025
/s/ Cary Grossman Cary Grossman	Director	February 25, 2025
/s/ Caitlin Long Caitlin Long	Director	February 25, 2025
/s/ Wesley Williams Wesley Williams	Director	February 25, 2025

Item 1. Financial Statements

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
Cipher Mining Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Cipher Mining Inc. (the “Company”) as of December 31, 2024 and 2023, the related consolidated statements of operations, changes in stockholders’ equity (deficit) and cash flows for each of the two years in the period ended December 31, 2024, and the related notes (collectively referred to as the “financial statements”). In our opinion, based on our audits, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2024 in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2024, based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 2013 and our report dated February 25, 2025, expressed an adverse opinion on the effectiveness of the Company’s internal control over financial reporting because of the existence of a material weakness.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue Recognition

<u>Description of the Matter:</u>

As disclosed in Note 2 to the financial statements, the Company enters into bitcoin mining pools by executing a contract, as amended from time to time, with a mining pool operator to provide computing power to the mining pool. Providing computing power to a mining pool operator for the purpose of cryptocurrency transaction verification is an output of the Company’s ordinary activities.

The principal consideration for our determination that performing procedures related to revenue recognition is a critical audit matter is due to the nature and extent of audit effort required to perform audit procedures over the completeness and occurrence of revenue recognized.

How we Addressed the Matter in our Audit:
Addressing this matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. These procedures included, among others:

- We performed site visits at the Company's Odessa facility and joint venture facilities where the mining hardware is located, which included observations of the physical controls and mining equipment inventory

- We independently traced certain financial and performance data directly to the blockchain network to test the occurrence and accuracy of mining revenue as a participant in the mining pools

- We independently confirmed with the third-party mining pool operator the significant contractual terms utilized in the determination of mining revenue, total mining rewards earned, and the digital asset wallet addresses in which the rewards are deposited to test the occurrence and accuracy of mining revenue as the participant

- We performed certain analytical procedures over the completeness, occurrence and accuracy of revenue recognized by the Company

- We confirmed the year-end digital asset balances directly with the custodians of the Company's wallets

Derivative Asset Valuation

Description of the Matter:

As described in Notes 4 and 18 to the consolidated financial statements, the Company's derivative asset is measured at fair value. The valuation of the derivative asset is highly subjective and requires management to make significant judgments related to market data, including interest rates, credit spreads, and other market conditions. The Company utilizes valuation models that rely on both observable and unobservable inputs.

Given the complexity and judgment involved in the valuation of the derivative asset, auditing this account required significant auditor judgment and the use of valuation specialists.

How we Addressed the Matter in our Audit:

Addressing this matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. These procedures included, among others:

- With the assistance of our valuation specialists, we evaluated the appropriateness of the valuation methodologies and models used by management. This included testing the completeness, accuracy, and relevance of the market data inputs and evaluating the significant assumptions for reasonableness.

- We performed an independent revaluation of the derivative asset using our own valuation models, based on independently obtained market data.

- We evaluated the adequacy of the Company's disclosures related to the fair value of derivative asset in the consolidated financial statements.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2021.

San Francisco, CA
February 25, 2025

CIPHER MINING INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except for share and per share amounts)

	December 31, 2024	December 31, 2023
ASSETS		
Current assets		
Cash and cash equivalents	$ 5,585	$ 86,105
Accounts receivable	596	622
Receivables, related party	2,090	245
Prepaid expenses and other current assets	3,387	3,670
Bitcoin	92,651	32,978
Receivable for bitcoin collateral	32,248	-
Derivative asset	31,648	31,878
Total current assets	168,205	155,498
Restricted cash	14,392	-
Property and equipment, net	480,865	243,815
Deposits on equipment	38,872	30,812
Intangible assets, net	8,881	8,109
Investment in equity investees	53,908	35,258
Derivative asset	54,022	61,713
Operating lease right-of-use asset	12,561	7,077
Security deposits	19,782	23,855
Other noncurrent assets	3,958	-
Total assets	**$ 855,446**	**$ 566,137**
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 22,699	$ 4,980
Accounts payable, related party	-	1,554
Accrued expenses and other current liabilities	69,824	22,439
Finance lease liability, current portion	3,798	3,404
Operating lease liability, current portion	3,127	1,166
Short-term borrowings	32,330	-
Warrant liability	-	250
Total current liabilities	131,778	33,793
Asset retirement obligations	20,282	18,394
Finance lease liability	7,331	11,128
Operating lease liability	9,833	6,280
Deferred tax liability	4,269	5,206
Total liabilities	173,493	74,801
Commitments and contingencies (*Note 13*)		
Stockholders' equity		
Preferred stock, $0.001 par value; 10,000,000 shares authorized, none issued and outstanding as of December 31, 2024, and December 31, 2023	-	-
Common stock, $0.001 par value, 500,000,000 shares authorized, 361,432,449 and 296,276,536 shares issued as of December 31, 2024 and December 31, 2023, respectively, and 350,783,817 and 290,957,862 shares outstanding as of December 31, 2024, and December 31, 2023, respectively	361	296
Additional paid-in capital	863,015	627,822
Accumulated deficit	(181,412)	(136,777)
Treasury stock, at par, 10,648,632 and 5,318,674 shares at December 31, 2024 and December 31, 2023, respectively	(11)	(5)
Total stockholders' equity	681,953	491,336
Total liabilities and stockholders' equity	**$ 855,446**	**$ 566,137**

The accompanying notes are an integral part of these consolidated financial statements.

CIPHER MINING INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except for share and per share amounts)

	Year Ended December 31,	
	2024	2023
Revenue - bitcoin mining	$ 151,270	$ 126,842
Costs and operating (expenses) income		
Cost of revenue	(62,364)	(50,309)
Compensation and benefits	(60,796)	(57,399)
General and administrative	(32,655)	(27,796)
Depreciation and amortization	(102,448)	(59,093)
Change in fair value of derivative asset	(7,921)	26,836
Power sales	5,405	9,941
Equity in losses of equity investees	(384)	(2,530)
Unrealized gains on fair value of bitcoin	11,313	3,299
Realized gains on sale of bitcoin	51,548	7,739
Other gains	3,333	2,355
Total costs and operating expenses	(194,969)	(146,957)
Operating loss	(43,699)	(20,115)
Other income (expense)		
Interest income	3,384	164
Interest expense	(1,708)	(1,999)
Change in fair value of warrant liability	250	(243)
Other expense	(2,544)	(17)
Total other income (expense)	(618)	(2,095)
Loss before taxes	(44,317)	(22,210)
Current income tax expense	(1,255)	(201)
Deferred income tax benefit (expense)	937	(3,366)
Total income tax benefit (expense)	(318)	(3,567)
Net loss	$ (44,635)	$ (25,777)
Loss per share - basic and diluted	$ (0.14)	$ (0.10)
Weighted average shares outstanding - basic and diluted	323,103,303	252,439,461

The accompanying notes are an integral part of these consolidated financial statements.

CIPHER MINING INC.
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)
(in thousands, except for share amounts)

Year Ended December 31, 2024

	Common Stock		Additional	Accumulated	Treasury Stock		Total
	Shares	Amount	Paid-in Capital	Deficit	Shares	Amount	Stockholders' Equity
Balance as of December 31, 2023	**296,276,536**	**$ 296**	**$ 627,822**	**$ (136,777)**	**(5,318,674)**	**$ (5)**	**$ 491,336**
Issuance of common shares, net of offering costs - At-the-market offering	52,825,758	53	221,642	-	-	-	221,695
Delivery of common stock underlying restricted stock units, net of shares settled for tax withholding settlement	12,330,155	12	(27,648)	-	(5,329,958)	(6)	(27,642)
Share-based compensation	-	-	41,199	-	-	-	41,199
Net loss	-	-	-	(44,635)	-	-	(44,635)
Balance as of December 31, 2024	**361,432,449**	**$ 361**	**$ 863,015**	**$ (181,412)**	**(10,648,632)**	**$ (11)**	**$ 681,953**

Year Ended December 31, 2023

	Common Stock		Additional	Accumulated	Treasury Stock		Total
	Shares	Amount	Paid-in Capital	Deficit	Shares	Amount	Stockholders' Equity
Balance as of December 31, 2022	**251,095,305**	**$ 251**	**$ 453,854**	**$ (111,209)**	**(3,543,347)**	**$ (4)**	**$ 342,892**
Cumulative effect upon adoption of ASU 2023-08	-	-	-	209	-	-	209
Issuance of common shares, net of offering costs - At-the-market offering	37,433,923	37	132,406	-	-	-	132,443
Issuance of common stock - Black Pearl asset acquisition	2,397,424	2	6,998	-	-	-	7,000
Delivery of common stock underlying restricted stock units, net of shares settled for tax withholding settlement	4,942,906	5	(3,906)	-	(1,775,327)	(1)	(3,902)
Share-based compensation	406,978	1	38,470	-	-	-	38,471
Net loss	-	-	-	(25,777)	-	-	(25,777)
Balance as of December 31, 2023	**296,276,536**	**$ 296**	**$ 627,822**	**$ (136,777)**	**(5,318,674)**	**$ (5)**	**$ 491,336**

The accompanying notes are an integral part of these consolidated financial statements.

CIPHER MINING INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31, 2024	Year Ended December 31, 2023
Cash flows from operating activities		
Net loss	$ (44,635)	$ (25,777)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	101,798	58,972
Amortization of intangible assets	650	121
Amortization of operating right-of-use asset	1,249	822
Share-based compensation	42,132	38,470
Equity in losses (gains) of equity investees	384	2,530
Loss on disposal of assets	290	-
Non-cash lease expense	919	1,940
Deferred income taxes	(937)	3,366
Bitcoin received as payment for services	(151,296)	(126,319)
Change in fair value of derivative asset	7,921	(26,836)
Change in fair value of warrant liability	(250)	243
Change in fair value of bitcoin collateral	(546)	-
Change in fair value of bitcoin loan	(669)	-
Unrealized gains on fair value of bitcoin	(11,313)	(3,299)
Realized gains on sale of bitcoin	(51,548)	(7,739)
Changes in assets and liabilities:		
Accounts receivable	26	(524)
Receivables, related party	(1,845)	(1,203)
Prepaid expenses and other current assets	283	3,531
Security deposits	12,370	(6,125)
Other non-current assets	(3,958)	-
Accounts payable	7,997	(9,306)
Accounts payable, related party	-	(1,529)
Accrued expenses and other current liabilities	3,467	5,311
Lease liabilities	-	(890)
Net cash used in operating activities	(87,511)	(94,241)
Cash flows from investing activities		
Proceeds from sale of bitcoin	148,870	111,188
Deposits on equipment	(162,958)	(33,906)
Purchases of property and equipment	(139,495)	(20,480)
Purchases and development of software	(1,423)	(634)
Capital distributions from equity investees	-	3,808
Investment in equity investees	(37,123)	(3,545)
Prepayments on financing lease	-	(3,676)
Net cash (used in) provided by investing activities	(192,129)	52,755
Cash flows from financing activities		
Proceeds from the issuance of common stock	225,181	135,848
Offering costs paid for the issuance of common stock	(3,487)	(3,404)
Repurchase of common shares to pay employee withholding taxes	(27,641)	(3,902)
Proceeds from loans	25,000	-
Principal payments on financing lease	(5,541)	(12,878)
Net cash provided by financing activities	213,512	115,664
Net (decrease) increase in cash, cash equivalents, and restricted cash	(66,128)	74,178
Cash, cash equivalents, and restricted cash, beginning of the period	86,105	11,927
Cash and cash equivalents, and restricted cash, end of the period	$ 19,977	$ 86,105

The accompanying notes are an integral part of these consolidated financial statements

CIPHER MINING INC.
CONSOLIDATED STATEMENT OF CASH FLOWS - CONTINUED
(in thousands)

	Year Ended December 31,			
	2024		2023	
Supplemental disclosure of noncash investing and financing activities				
Reclassification of deposits on equipment to property and equipment	$	154,898	$	74,186
Property and equipment purchases in accounts payable and accrued expenses	$	42,192	$	-
Bitcoin transferred for rehypothecated collateral	$	31,702	$	-
Bitcoin received from equity investees	$	18,089	$	317
Bitcoin received as a loan	$	9,976	$	-
Bitcoin paid for interest on loan	$	1,977	$	-
Sales tax accrual on machine purchases	$	2,219	$	1,209
Right-of-use asset obtained in exchange for operating lease liability	$	6,733	$	2,812
Settlement of related party payable related to master services and supply agreement	$	1,554	$	-
Right-of-use asset obtained in exchange for finance lease liability	$	-	$	14,212
Issuance of common stock in exchange for intangible assets	$	-	$	7,000

The following table provides a reconciliation of Cash and cash equivalents together with Restricted cash as reported within the Consolidated Balance Sheets to the sum of the same such amounts shown in the Consolidated Statements of Cash Flows.

	December 31,			
	2024		2023	
Cash and cash equivalents	$	5,585	$	86,105
Restricted cash		14,392		-
Total cash, cash equivalents, and restricted cash shown in the statement of cash flows	$	19,977	$	86,105

The accompanying notes are an integral part of these consolidated financial statements.

NOTE 1. ORGANIZATION

Nature of operations

Cipher Mining Inc. (“Cipher” or the “Company”) is focused on the development and operation of industrial-scale data centers for bitcoin mining and high-performance compute (“HPC”) hosting. The Company operates one wholly-owned bitcoin mining data center and jointly operates three partially-owned bitcoin mining data centers that were acquired through investments in joint ventures. The Company has acquired four new wholly-owned sites as of December 31, 2024 which have not commenced operating, and options to acquire three additional wholly-owned sites.

Risks and uncertainties

Liquidity, capital resources and limited business history

The Company has historically experienced net losses and negative cash flows from operations; however, proceeds from sales of bitcoin are categorized as cash flows from investing activities to the extent bitcoin is sold after seven days of receipt. As of December 31, 2024, the Company had approximate balances of cash and cash equivalents of $5.6 million, working capital of $36.4 million, total stockholders’ equity of $682.0 million and an accumulated deficit of $181.4 million. The Company uses a combination of proceeds from sales of bitcoin earned by or received from its bitcoin mining data centers, short-term financing arrangements, and strategic sales of shares through “at-the-market” offerings to support its operating expenses and capital expenditures.

The Company monitors its balance sheet on an ongoing basis to determine the proper mix of bitcoin retention and bitcoin sales to support its cash requirements, ongoing operations, and capital expenditures. Bitcoin is classified as a current asset on the Company’s balance sheets due to its intent and ability to sell bitcoin to support operations when needed. Approximately $87.5 million of cash was used for operating activities during the years ended December 31, 2024.

During the year ended December 31, 2024, the Company paid approximately $163.0 million for deposits on equipment primarily related to new miner purchases for its Odessa Facility, and reclassified approximately $154.9 million to property and equipment related to equipment being placed into service.

The Company has a master loan agreement with Coinbase Credit, Inc., as Lender, and Coinbase, Inc., as Lending Service Provider (the “Coinbase Master Loan Agreement”). Pursuant to the master loan agreement, the Company has a secured line of credit up to $25.0 million (the “Coinbase Overnight Credit Facility”), and a term loan facility with Coinbase with a limit of $35.0 million and maximum period of one year (the “Term Loan Facility”). As described in more detail in *Note 19. Short-term borrowings*, the borrowings are collateralized by bitcoin transferred to the Lending Service Provider’s platform.

Management believes that the Company’s existing financial resources, combined with projected cash and bitcoin inflows from its data centers, its ability to sell bitcoin received or earned, and its intent and ability to sell common stock through at-the-market offerings will be sufficient to enable the Company to meet its operating and capital requirements for at least 12 months from the date these consolidated financial statements are issued.

There is limited historical financial information about the Company upon which to base an evaluation of its performance. The business is subject to risks inherent in the establishment of a new business enterprise, including limited capital resources, possible delays in exploration and/or development, and possible cost overruns due to price and cost increases in services. The Company may require additional capital to pursue certain business opportunities or respond to technological advancements, competitive dynamics or technologies, challenges, acquisitions or unforeseen circumstances. Additionally, the Company has incurred and expects to continue to incur significant costs related to operating as a public company. Accordingly, the Company may engage in equity or debt financings or enter into credit facilities for the above-mentioned or other reasons; however, the Company may not be able to timely secure additional debt or equity financings on favorable terms, if at all. If the Company raises additional funds through equity financing, its existing stockholders could experience significant dilution. Furthermore, any debt financing obtained by the Company in the future could involve restrictive covenants relating to the Company’s capital raising activities and other financial and operational matters, which may make it more difficult for the Company to obtain additional capital and to pursue business opportunities. If the Company is unable to obtain adequate financing on terms that are satisfactory to the Company, when the Company requires it, the Company’s ability to continue to grow or support the business and to respond to business challenges could be significantly limited, which may adversely affect the Company’s business plan.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation and principles of consolidation

The Company prepares its consolidated financial statements in accordance with accounting principles generally accepted in the United States ("GAAP") as determined by the FASB and pursuant to the accounting and disclosure rules and regulations of the Securities and Exchange Commission ("SEC").

The consolidated financial statements include the accounts of the Company and its controlled subsidiaries. All intercompany transactions and balances have been eliminated.

Certain reclassifications have been made to the prior period's consolidated financial statements in order to conform to the current period presentation. Such reclassifications are immaterial, individually and in the aggregate, to both current and all previously issued financial statements taken as a whole. Effective for the quarter ended March 31, 2024, the Company changed the presentation of its consolidated income statement to separately disclose Compensation and benefits from General and administrative. The Company believes this presentation provides increased transparency on the nature of the respective financial statement line items. As a result, the Company reported $57.4 million of Compensation and benefits expense for the year ended December 31, 2023.

Use of estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting period. The most significant estimates inherent in the preparation of the Company's consolidated financial statements include, but are not limited to, those related to equity instruments issued in share-based compensation arrangements, valuations of its derivative asset and warrant liability, useful lives of property and equipment, the asset retirement obligations and the valuation allowance associated with the Company's deferred tax assets, among others. Making estimates requires management to exercise significant judgment. It is at least reasonably possible that the estimate of the effect of a condition, situation or set of circumstances that existed at the date of the financial statements, which management considered in formulating its estimate, could change in the near term due to one or more future confirming events. Accordingly, the actual results could differ significantly from those estimates.

Cash and cash equivalents

The Company considers all highly liquid investments with an original maturity of three months or less at the date of acquisition to be cash equivalents. The Company's cash equivalents consist of funds held in money market accounts. The Company had $5.6 million and $86.1 million in cash equivalents as of December 31, 2024 and 2023, respectively.

Restricted cash

Restricted cash represents amounts pledged as collateral to Luminant ET Services Company LLC ("Luminant"), and Vistra Operations Company, LLC ("Vistra"), a Luminant affiliate, primarily related to the Luminant Power Agreement (defined below in *Note 4. Derivative Asset)*. Previously these amounts were held by each respective counterparty, and classified in the Company's financials as Security deposits. In September 2024, the Company moved the collateral to a money market account in the Company's name with a bank letter of credit. The collateral restrictions related to the Luminant Power Agreement will lapse upon termination of the agreement.

Concentrations of credit risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents. Periodically, the Company maintains deposits in financial institutions in excess of government insured limits. Management believes that the Company is not exposed to significant credit risk as the Company's deposits are held at financial institutions that management believes to be of high credit quality. The Company has not experienced any losses on these deposits.

Accounts receivable

The Company's accounts receivable balance consists of amounts due from its only customer, a mining pool operator. Amounts recorded in accounts receivable as of December 31, 2024 consist of the block rewards and transaction fees earned the last day (last contract period) of the year, but not yet received from the mining pool operator. No allowance was recorded as of December 31, 2024.

Fair value of financial instruments

The Company's financial assets and liabilities are accounted for in accordance with ASC 820, *Fair Value Measurement* ("ASC 820"), which defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The fair value hierarchy requires an entity to maximize the use of observable inputs when measuring fair value and classifies those inputs into three levels:

Level 1 – Observable inputs, such as quoted prices in active markets for identical assets and liabilities.

Level 2 – Inputs other than Level 1 inputs that are either directly or indirectly observable, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the instrument's anticipated life.

Level 3 – Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

To the extent the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair values requires more judgment. Accordingly, the degree of judgment exercised by management in determining fair value is greatest for instruments categorized as Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The carrying values reported in the Company's consolidated balance sheets for cash (excluding cash equivalents which are recorded at fair value on a recurring basis), accounts payable and accrued expenses and other current liabilities are reasonable estimates of their fair values due to the short-term nature of these items.

As of December 31, 2024, the Company had an embedded derivative asset in the accounts receivable recorded for the amount of block rewards and transaction fees earned the last day (last contract period) of the year. The derivative asset is classified within Level 1 of the fair value hierarchy because fair value is based on quoted prices in an active market. Changes in fair value of the derivative asset are presented within operating expense (income) in the consolidated statement of operations.

Refer to *Note 18. Fair Value Measurements*, for further information about the Level 3 asset and liability rollforwards of activity and Level 3 inputs.

Bitcoin

Bitcoin are included in current assets on the consolidated balance sheets. Bitcoin received through the Company's wholly-owned mining activities are accounted for in connection with the Company's revenue recognition policy. Bitcoin awarded to the Company as distributions-in-kind from equity investees are accounted for in accordance with ASC 845, *Nonmonetary Transactions*, and recorded at fair value upon receipt.

Bitcoin held by the Company are accounted for as intangible assets under ASC 350-60, *Crypto Assets,* issued by the FASB in December 2023. Intangible assets under the scope of this subtopic are measured at fair value on the Company's consolidated balance sheet. The Company determines the fair value of its bitcoin on a nonrecurring basis in accordance with ASC 820 based on quoted prices on the active trading platform that the Company has determined is its principal market for bitcoin (Level 1 inputs).

Prior to the adoption of ASU 2023-08, bitcoin was accounted for as an intangible asset subject to impairment. Upon adoption of ASC 350-60 on January 1, 2023, the Company recorded an opening adjustment to retained earnings of $0.2 million.

Bitcoin awarded to the Company through its mining activities are included as an adjustment to reconcile net loss to cash used in operating activities on the consolidated statements of cash flows. Proceeds from sales of bitcoin are included within cash flows from operating activities on the consolidated statements of cash flows to the extent bitcoin are sold within seven days of being awarded, and investing cash flows if sold after that period. Any realized gains or losses from such sales are included in costs and operating expenses (income) on the consolidated statements of operations. The receipt of bitcoin as distributions-in-kind from equity investees are included as a noncash activity on the consolidated statements of cash flows. Bitcoin are sold on a first-in-first-out ("FIFO") basis.

Receivable for bitcoin collateral

Receivable for bitcoin is included in current assets on the consolidated balance sheets. This balance represents bitcoin pledged to counterparties as collateral which can be rehypothecated, and therefore is derecognized from the Company's Bitcoin balance. The receivable is recorded at fair value, with changes in fair value recorded in Other income (expense) on the consolidated statements of operations. No allowance was recorded as of December 31, 2024.

Property and equipment, net

Property and equipment consists primarily of miners and mining equipment, leasehold improvements and construction-in-progress at the Company's data centers, and is stated at cost, net of accumulated depreciation and amortization. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the assets. Leasehold improvements include capitalized asset retirement costs (see the related *Asset Retirement Obligations* policy below) and the substation right-of-use asset (further discussed in *Note 13. Leases)*, both of which are amortized over the shorter of the estimated useful life of the related assets, or the related lease. All other leasehold improvements are depreciated over the lesser of the estimated useful life of the asset or the remaining life of the related lease. Costs of maintenance, repairs and minor replacements are expensed when incurred. Construction-in-progress is comprised of assets which have not been placed into service and is not depreciated until the related assets or improvements are ready to be placed into service.

The estimated useful lives for all property and equipment are as follows:

	Useful lives (in years)
Miners and mining equipment	3
Leasehold improvements	5
Other	3 to 7
Infrastructure assets	20

Intangible assets, net

Intangible assets, net primarily includes strategic contracts acquired as part of asset acquisitions and relate to certain regulatory approvals related to energizing data centers. Intangible assets also includes capitalized software, which consists of consulting costs related to development of internal-use software. Intangible assets are presented net of the associated accumulated amortization.

The Company accounts for the costs of software developed for internal use by capitalizing costs incurred during the application development stage to property and equipment, net on its consolidated balance sheets. Costs related to preliminary project activities and post-implementation activities are expensed as incurred. The Company plans to amortize the capitalized costs of internal-use software on a straight-line basis over the estimated useful life of the asset, which is expected to be three years. The Company will recognize the amortization of software in depreciation expense on the consolidated statements of operations once the software is technologically feasible.

The estimated useful lives for all intangible assets are as follows:

	Useful lives (in years)
Software	3
Strategic contracts	20

Impairment of long-lived assets

Management reviews long-lived assets, including leases and investments, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset, asset group or investment may not be recoverable.

Recoverability of assets to be held and used are measured by a comparison of the carrying amount of an asset to undiscounted future cash flows expected to be generated by the asset. Because the impairment test for long-lived assets held in use is based on estimated undiscounted cash flows, there may be instances where an asset or asset group is not considered impaired, even when its fair value may be less than its carrying value, because the asset or asset group is recoverable based on the cash flows to be generated over the estimated life of the asset or asset group.

If such assets are considered to be impaired, the impairment to be recognized will be measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

The Company completed a quantitative assessment during the second quarter in connection with entering into agreements to obtain new miners, and concluded no impairment existed as of the assessment date. There was no further indication that the Company's long-lived assets might be impaired as of December 31, 2024.

Investment in equity investees

The Company accounts for investments using the equity method of accounting if the investments provide the Company the ability to exercise significant influence, but not control, over its investees. Significant influence is generally deemed to exist if the Company has an ownership interest in the voting stock of an investee of between 20 percent and 50 percent, or an ownership interest greater than three to five percent in certain partnerships, unincorporated joint ventures and limited liability companies, although other factors are considered in determining whether the equity method of accounting is appropriate. Under this method, an investment in the common stock of an investee (including a joint venture) shall be initially measured and recorded at cost; however, an investor shall initially measure at fair value an investment in the common stock of an investee (including a joint venture) recognized upon the derecognition of a distinct nonfinancial asset at the time that control over the distinct nonfinancial asset is transferred to the equity investee, such as that which occurs upon the transfer of miners and mining equipment to a joint venture from the Company.

The Company's investments are subsequently adjusted to recognize its share of net income or losses as they occur. The Company also adjusts its investment upon receipt of bitcoin from an equity investee, which is accounted for as a distribution-in-kind that is measured as of time of receipt. The Company's share of investees' earnings or losses is recorded, net of taxes, within equity in losses of equity investees on the Company's consolidated statement of operations. Additionally, the Company's interest in the net assets of its equity method investees is reflected on its consolidated balance sheet. If, upon the Company's contribution of nonfinancial assets to a joint venture, there is any difference between the cost of the investment and the amount of the underlying equity in the net assets of the investee, the difference is required to be accounted for as if the investee were a consolidated subsidiary. If the difference is assigned to depreciable or amortizable assets or liabilities, then the difference should be amortized or accreted in connection with the equity earnings based on the Company's proportionate share of the investee's net income or loss. If the Company is unable to relate the difference to specific accounts of the investee, the difference should be considered goodwill.

The Company considers whether the fair value of its equity method investments have declined below their carrying values whenever adverse events or changes in circumstances indicate that recorded values may not be recoverable. If the Company considered any such decline to be other than temporary (based on various factors, including historical financial results, success of the mining operations and the overall health of the investee's industry), then the Company would record a write-down to the estimated fair value.

Asset retirement obligations

Asset retirement obligations relate to the legal obligations associated with the retirement of long-lived assets that result from the construction, development and/or normal operation of a long-lived asset. The Company currently has one asset retirement obligation ("ARO") recorded related to the construction of the data center and installation of the related electrical infrastructure at the Odessa Facility. ASC 410, *Asset Retirement and Environmental Obligations* ("ASC 410") requires an entity to record the fair value of a liability for an ARO in the period in which it is incurred if a reasonable estimate of fair value can be made. Due to the long lead time involved until decommissioning activities occur, the Company uses a present value technique to estimate the liability. A liability for the fair value of the ARO based on the expected present value of estimated future decommissioning costs with a corresponding increase to the carrying value of the related long-lived asset (leasehold improvements) was recorded upon commencement of the lease in November 2022. Additionally, an ARO for our Black Pearl Facility will be analyzed and recorded upon completion of construction. The estimated capitalized asset retirement costs are depreciated using the straight-line method over the estimated remaining useful life of the related long-lived asset, with such depreciation included in depreciation expense in the consolidated statements of operations. The ARO is accreted based on the original discount rate and is recognized as an increase in the carrying amount of the liability and a charge to accretion expense, which is included in depreciation expense in the consolidated statements of operations. Annually, or more frequently if an event occurs that would dictate a change in assumptions or estimates underlying the obligation, the Company reassesses its ARO to determine whether any revisions to the obligation are necessary. Revisions to the estimated ARO for items such as (i) new liabilities incurred, (ii) liabilities settled during the period and (iii) revisions to estimated future cash flow requirements (if any), will result in adjustments to the related capitalized asset and corresponding liability.

In order to determine the fair value of the ARO, the Company's management made certain estimates and assumptions including, among other things, projected cash flows, the borrowing interest rate and an assessment of market conditions that could significantly impact the estimated fair value. These estimates and assumptions are subjective. See additional information regarding the ARO in *Note 12. Asset Retirement Obligations*.

Leases

The Company accounts for leases in accordance with ASC 842, *Leases* ("ASC 842"). Accordingly, the Company determines whether an arrangement contains a lease at the inception of the arrangement. If a lease is determined to exist, the term of such lease is assessed based on the date on which the underlying asset is made available for the Company's use by the lessor. The Company's assessment of the lease term reflects the non-cancelable term of the lease, inclusive of any rent-free periods and/or periods covered by early-termination options which the Company is reasonably certain of not exercising, as well as periods covered by renewal options which the Company is reasonably certain of exercising. The Company also determines lease classification as either operating or finance at lease commencement, which governs the pattern of expense recognition and the presentation reflected in the consolidated statements of operations over the lease term.

For leases with a term exceeding 12 months, a lease liability is recorded on the Company's consolidated balance sheet at lease commencement reflecting the present value of its fixed minimum payment obligations over the lease term. A corresponding right-of-use ("ROU") asset equal to the initial lease liability is also recorded, adjusted for any accrued or prepaid rents and/or unamortized initial direct costs incurred in connection with execution of the lease and reduced by any lease incentives received. For purposes of measuring the present value of its fixed payment obligations for a given lease, the Company generally uses its incremental borrowing rate, determined based on information available at lease commencement, if rates implicit in its leasing arrangements are not readily determinable. The Company's incremental borrowing rate reflects the rate it would pay to borrow on a secured basis and incorporates the term and economic environment of the associated lease. ROU assets will be reviewed for impairment, consistent with other long-lived assets, whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Lease expense for operating leases is recognized on a straight-line basis over the lease term as an operating expense while the expense for finance leases is recognized as depreciation expense and interest expense using the interest method of recognition. For leases with a term of 12 months or less, any fixed payments are recognized on a straight-line basis over the lease term and are not recognized on the Company's consolidated balance sheet as an accounting policy election. Leases qualifying for the short-term lease exception are insignificant. Variable lease costs are expensed as incurred and are not included in the measurement of ROU assets and lease liabilities.

ASC 842 provides practical expedients for an entity's ongoing accounting. The Company elected the practical expedient not to separate lease and non-lease components for all leases, which means all consideration that is fixed, or in-substance fixed, relating to the non-lease components will be captured as part of the Company's lease components for balance sheet purposes.

Short-term borrowings

Short-term borrowings includes debt with maturity dates less than one year. The Company has elected the fair value option to debt denominated in bitcoin. The change in fair value for bitcoin denominated debt is recorded in Other income (expense). Refer to *Note 19. Short-term borrowings* for details on the Company's borrowings.

Common stock warrants

Upon the consummation of the Business Combination, the Company assumed common stock warrants that were originally issued in GWAC's initial public offering (the "Public Warrants"), as well as warrants that were issued in a private placement that closed concurrently with GWAC's initial public offering (the "Private Placement Warrants"). See *Note 16. Warrants* for additional information on the Public Warrants and Private Placement Warrants.

The Company is capitalized as a single class of common stock, accordingly, a qualifying cash tender offer of more than 50% of the Common Stock will always result in a change-in-control, and in accordance with ASC 815-40-55-3, this would not preclude permanent equity classification of the Public Warrants; therefore, the Public Warrants are equity classified.

The Private Placement Warrants are accounted for as a liability under ASC 815-40, *Derivatives and Hedging - Contracts in Entity's Own Equity*, as they are a freestanding financial instrument that require the Company to transfer assets upon exercise. The Company recorded the Private Placement Warrants as a liability in the consolidated balance sheet at fair value on the Closing Date, with subsequent changes in fair value recognized in the change in fair value of warrant liability within the consolidated statements of operations. The Private Placement Warrants were valued using a Black-Scholes option-pricing model as described in *Note 18. Fair Value Measurements*.

Treasury stock

Treasury share purchases obtained through share withholdings for taxes are recorded at par value.

Revenue recognition

The Company recognizes revenue under ASC 606, *Revenue from Contracts with Customers* ("ASC 606"). The core principle of the revenue standard is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The following five steps are applied to achieve that core principle:

- Step 1: Identify the contract with the customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognize revenue when the company satisfies a performance obligation

In order to identify the performance obligations in a contract with a customer, a company must assess the promised goods or services in the contract and identify each promised good or service that is distinct. A performance obligation meets ASC 606's definition of a "distinct" good or service (or bundle of goods or services) if both of the following criteria are met: The customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer (i.e., the good or service is capable of being distinct), and the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract (i.e., the promise to transfer the good or service is distinct within the context of the contract).

If a good or service is not distinct, the good or service is combined with other promised goods or services until a bundle of goods or services is identified that is distinct. The transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer. The consideration promised in a contract with a customer may include fixed amounts, variable amounts, or both. When determining the transaction price, an entity must consider the effects of all of the following:

- Variable consideration

- Constraining estimates of variable consideration
- The existence of a significant financing component in the contract
- Noncash consideration
- Consideration payable to a customer

Variable consideration is included in the transaction price only to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The transaction price is allocated to each performance obligation on a relative standalone selling price basis. The standalone selling price is the price at which the Company would sell a promised service separately to a customer. The relative selling price for each performance obligation is estimated using observable objective evidence if it is available. If observable objective evidence is not available, the Company uses its best estimate of the selling price for the promised service. In instances where the Company does not sell a service separately, establishing standalone selling price requires significant judgment. The Company estimates the standalone selling price by considering available information, prioritizing observable inputs such as historical sales, internally approved pricing guidelines and objectives, and the underlying cost of delivering the performance obligation. The transaction price allocated to each performance obligation is recognized when that performance obligation is satisfied, at a point in time or over time as appropriate.

Management judgment is required when determining the following: when variable consideration is no longer probable of significant reversal (and hence can be included in revenue); whether certain revenue should be presented gross or net of certain related costs; when a promised service transfers to the customer; and the applicable method of measuring progress for services transferred to the customer over time.

The Company enters into bitcoin mining pools by executing a contract, as amended from time to time, with a mining pool operator to provide computing power to the mining pool. Providing computing power to a mining pool operator for the purpose of cryptocurrency transaction verification is an output of the Company's ordinary activities. The contract is terminable at any time by either party with no substantive termination penalty. The Company's enforceable right to compensation begins when, and lasts for as long as, the Company provides computing power to the mining pool operator; the Company's performance obligation extends over the contract term given the Company's continuous provision of hashrate. This period of time corresponds with the period of service for which the mining pool operator determines compensation due the Company. Given cancellation terms of the contract, and the Company's customary business practice, the contract effectively provides the Company with the option to renew for successive contract terms of 24 hours. The options to renew are not material rights because they are offered at the standalone selling price of computing power. The Company elected the optional exemption to not disclose the transaction price allocated to remaining performance obligations that are part of a contract that has an original expected duration of one year or less.

The provision of computing power in accordance with the mining pool operator's terms of service is the only performance obligation in the Company's contract with the mining pool operator, its customer. In exchange for providing computing power pursuant to the pool's terms of service, the Company is entitled to noncash consideration in the form of bitcoin, measured under the Full Pay Per Share ("FPPS") approach for all current pools the Company participates in. Under the FPPS approach, the Company is entitled to a fractional share of the fixed bitcoin award from the mining pool operator (referred to as a "block reward") and potentially transaction fees generated from (paid by) blockchain users and distributed (paid out) to individual miners by the mining pool operator. The Company's fractional share of the block reward is based on the proportion of computing power the Company contributed to the mining pool operator to the total computing power contributed by all mining pool participants in solving the current algorithm, over the contract term. The Company is entitled to its relative share of consideration even if a block is not successfully placed. In other words, the Company receives consideration once after the end of each 24-hour contract period, regardless of whether the pool successfully places a block. The Company proportionate share of transaction fees is based on the Company's contributed share of hashrate as a percentage of total network hashrate during the contract term.

The mining pool operator calculates block rewards under the FPPS approach described above and may charge a pool fee for maintenance of the pool that reduces the amount of block rewards to which the Company is entitled. After every 24-hour contract term, the Company receives a payout and the pool transfers the bitcoin consideration to the Company's designated bitcoin wallet.

Noncash consideration is measured at fair value at contract inception. Fair value of the bitcoin consideration is determined using the quoted price on the Company's principal market for bitcoin at the beginning of the contract period at the single bitcoin level (one bitcoin). This amount is recognized in revenue over the contract term as hashrate is provided. Changes in the fair value of the noncash consideration due to form of the consideration (changes in the market price of bitcoin) are not included in the transaction price and hence are not included in revenue. Changes in fair value of the noncash consideration post-contract inception that are due to reasons other than form of consideration (other than changes in the market value of bitcoin) are measured based on the guidance on variable consideration, including the constraint on estimates of variable consideration.

Because the consideration to which the Company expects to be entitled for providing computing power is entirely variable, as well as being noncash consideration, the Company assesses the estimated amount of the variable noncash consideration at contract inception and subsequently, to determine when and to what extent it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur once the uncertainty associated with the variable consideration is subsequently resolved (the "constraint"). Only when significant revenue reversal is concluded probable of not occurring can estimated variable consideration be included in revenue. Based on evaluation of likelihood and magnitude of a reversal in applying the constraint, the estimated variable noncash consideration is constrained from inclusion in revenue until the end of the contract term, when the underlying uncertainties have been resolved and number of bitcoin to which the Company is entitled becomes known.

There is no significant financing component in these transactions.

During the year ended December 31, 2024, the Company earned revenue of $151.3 million from pool operators Foundry USA Pool ("Foundry"), and Luxor Technology Corporation ("Luxor"), representing 100% of total consolidated revenue.

Cost of revenue

Cost of revenue consists primarily of direct production costs of bitcoin mining operations, which consists mainly of electricity expenses, but excludes depreciation which is separately stated.

Share-based compensation

The Company accounts for all share-based payments to employees, consultants and directors, which may include grants of stock options, stock appreciation rights, restricted stock awards and restricted stock units ("RSUs") to be recognized in the consolidated financial statements, based on their respective grant date fair values. As of December 31, 2024, the Company has awarded only RSUs with service-based vesting conditions ("Service-Based RSUs") and performance-based RSUs with market-based vesting conditions ("Performance-Based RSUs"). Compensation expense for all awards is amortized based upon a graded vesting method over the estimated requisite service period. All share-based compensation expenses are recorded in general and administrative expense in the consolidated statements of operations. Forfeitures are recorded as they occur. See also *Note 17. Share-Based Compensation* below.

The fair value of Service-Based RSUs is the closing market price of Common Stock on the date of the grant. The Company employs a Monte Carlo simulation technique to calculate the fair value of the Performance-Based RSUs on the date granted based on the average of the future simulated outcomes. The Performance-Based RSUs contain different market-based vesting conditions that are based upon the achievement of certain market capitalization milestones. Under the Monte Carlo simulation model, a number of variables and assumptions are used including, but not limited to, the underlying price of Common Stock, the expected stock price volatility over the term of the award, a correlation coefficient, and the risk-free rate. The Performance-Based RSUs awarded do not have an explicit requisite service period, therefore compensation expense is recorded over a derived service period based upon the estimated median time it will take to achieve the market capitalization milestone using a Monte Carlo simulation.

Income taxes

The Company complies with the accounting and reporting requirements of FASB ASC Topic 740, *Income Taxes* ("ASC 740"), which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed for differences between the financial statement and tax bases of assets and liabilities that will result in future taxable or deductible amounts, based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

ASC 740 prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more likely than not to be sustained upon examination by taxing authorities. As of December 31, 2024 and December 31, 2023, the Company did not have any significant uncertain tax positions. The Company will recognize interest and penalties related to uncertain tax positions in income tax expense. The Company did not have any accrued interest or penalties related to uncertain tax positions recorded as of December 31, 2024 or December 31, 2023, and no amounts have been recognized in the Company's consolidated statements of operations. The Company does not anticipate a material change to unrecognized tax benefits in the next 12 months.

The Company files income tax returns in the United States federal tax jurisdiction and various state jurisdictions. The Company did not have any foreign operations during any periods presented in these consolidated financial statements. All of the Company's tax years since inception are open for examination by the federal and state tax authorities and will remain open to the extent that the Company's tax attributes are utilized in future years to offset income or income taxes. The Company is not aware of any tax examinations currently taking place.

Segment information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business in one segment, Bitcoin mining.

Earnings per share

Basic earnings (loss) per share is computed by dividing net income (loss) allocated to common shareholders by the weighted average number of common shares outstanding during the period. Diluted earnings (loss) per common share adjusts net income (loss) and net income (loss) per common share for the effect of all potentially dilutive shares of Common Stock. Potentially dilutive common shares consist of the Company's outstanding warrants to purchase Common Stock, as well as unvested restricted stock units ("RSUs").

The dilutive effect of RSUs was calculated using the treasury stock method. For warrants that are liability-classified, during periods when the impact is dilutive, the Company assumes share settlement of the instruments as of the beginning of the reporting period and adjusts the numerator to remove the change in fair value of the warrant liability and adjusts the denominator to include the dilutive shares calculated using the treasury stock method.

The Company's potentially dilutive common shares have been excluded from the computation of diluted net loss per common share when the effect would be to reduce the net loss per common share, or increase the net income per common share.

The following is a reconciliation of the numerator and denominator of the diluted earnings (loss) per share computations for the periods indicated below:

	Year Ended December 31,	
	2024	**2023**
Basic and diluted loss per share:		
Net loss	$ (44,635)	$ (25,777)
Weighted average shares outstanding - basic	323,103,303	252,439,461
Add:		
RSUs	-	-
Weighted average shares outstanding - diluted	323,103,303	252,439,461
Net loss per share - basic and diluted	$ (0.14)	$ (0.10)

The following table presents the common shares that are excluded from the computation of diluted net income (loss) per common share at December 31, 2024 and 2023, because including them would have been antidilutive.

	December 31,	
	2024	2023
Public warrants	8,613,980	8,499,980
Private placement warrants	—	114,000
Unvested RSUs	15,922,220	21,304,952
	24,536,200	29,918,932

Recently issued and adopted accounting pronouncements

The Company continually assesses any new accounting pronouncements to determine their applicability. When it is determined that a new accounting pronouncement affects the Company's financial reporting, the Company undertakes to determine the consequences of the change to its consolidated financial statements and assures that there are proper controls in place to ascertain that the Company's consolidated financial statements properly reflect the change.

Recently adopted accounting pronouncements

In November 2023, the FASB issued ASU 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* ("ASU 2023-07"). ASU 2023-07 seeks to improve disclosures about a public entity's reportable segments and add disclosures around a reportable segment's expenses. The additional disclosures provided by this ASU are contained in *Note 20. Segment Reporting.*

Recently issued accounting pronouncements

In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures* ("ASU 2023-09"). ASU 2023-09 seeks to improve transparency if income tax disclosures by requiring consistent categories and greater disaggregation of information in the rate reconciliation and income taxes paid disclosures. The updated guidance is effective for the Company on January 1, 2025. The Company does not expect the adoption of ASU 2023-09 to have a material impact on its financial statements and disclosures.

In March 2024, the FASB issued ASU 2024-01, *Compensation - Stock Compensation (Topic 718): Scope Application of Profits Interest and Similar Awards.* This ASU seeks to provide clarity if profits interest awards are in scope for Topic 718 or Topic 720. This ASU is effective for the Company January 1, 2025. The Company does not expect a material impact on its financial statements or disclosures from adoption of this ASU.

In November 2024, the FASB issued ASU 2024-03, *Income Statement - Reporting Comprehensive Income - Expense Disaggregation Disclosures (Subtopic 220-40).* ASU 2024-03 seeks to improve disclosures around expenses and provide more detail to investors about certain times of expenses in commonly presented captions. The updated guidance is effective for the Company on January 1, 2027. The Company is currently evaluating the impact of ASU 2024-03 but does not expect a material impact to its financial statements and disclosures.

In November 2024, the FASB issued ASU 2024-04, *Debt - Debt with Conversion and Other Options (Subtopic 470-20): Induced Conversions of Convertible Debt Instruments.* ASU 2024-04 seeks to improve the relevance and consistency in application of Subtopic 470-20 around when the terms of convertible debt instruments are changed to incentivize conversion. The updated guidance is effective for the Company on January 1, 2026. The Company has no convertible debt instruments and does not expect the adoption of this ASU to have a material impact on its financial statements and disclosures.

NOTE 3. BITCOIN

The following table presents information about the Company's bitcoin (in thousands):

	For the Year Ended December 31,	
	2024	**2023**
Opening balance	$ 32,978	$ 6,283
Cumulative effect upon adoption of ASU 2023-08	-	209
Bitcoin received from equity investees	18,089	317
Bitcoin received from mining activities	151,296	126,319
Bitcoin received from loan	9,976	-
Proceeds from sale of bitcoin	(148,870)	(111,188)
Bitcoin loan payments	(1,977)	-
Realized gains on sale of bitcoin(1)	51,548	7,739
Unrealized gains on bitcoin	11,313	3,299
Bitcoin transferred to collateral, net	(31,702)	-
Ending balance	$ 92,651	$ 32,978

(1) Realized losses from sale of bitcoin was immaterial in all periods presented.

The Company held approximately 994 and 780 bitcoin at December 31, 2024, and December 31, 2023, respectively. The associated fair value and cost basis of bitcoin held was $92.7 million, and $79.8 million, respectively, at December 31, 2024, and $33.0 million, and $30.9 million, respectively at December 31, 2023. Fair value of bitcoin is estimated using the closing price, which is a Level 1 input (i.e., an observable input such as a quoted price in an active market for an identical asset). The Company accounts for bitcoin on a first-in-first-out ("FIFO") basis.

As of December 31, 2024, 345 bitcoin with a fair value of $32.2 million were pledged as collateral related to the Coinbase Overnight Credit Facility. Restrictions on this bitcoin pledged as collateral will lapse upon repayment of the outstanding balance drawn on this facility. The collateral pledged related to the Coinbase Overnight Credit Facility can be rehypothecated and therefore is derecognized from the Company's ending bitcoin balance, and recorded in Receivable for bitcoin collateral on the Company's consolidated balance sheet. Any difference in cost basis of the bitcoin transferred is recorded in Realized gains on sale of bitcoin on the Company's consolidated statement of operations.

As of December 31, 2023, 10 bitcoin with a fair value of $0.4 million were pledged as collateral related to bitcoin hedging strategies. Collateral under these transactions were not subject to rehypothecation and are included in the Company's ending bitcoin balance. Restrictions on that collateral lapsed on January 26, 2024.

NOTE 4. DERIVATIVE ASSET

Luminant Power Agreement

On June 23, 2021, the Company entered into a power purchase agreement with Luminant, which was subsequently amended and restated on July 9, 2021, and further amended on February 28, 2022, August 26, 2022, and August 23, 2023 (as amended, the "Luminant Power Agreement"), for the supply of a fixed amount of electric power to the Odessa Facility at a fixed price for a term of five years, subject to certain early termination exemptions. The Luminant Power Agreement provides for subsequent automatic annual renewal unless either party provides written notice to the other party of its intent to terminate the agreement at least six months prior to the expiration of the then current term.

The Company's management determined that the Luminant Power Agreement meets the definition of a derivative under ASC 815, *Derivatives and Hedging* ("ASC 815"). Accordingly, the Luminant Power Agreement is recorded at its estimated fair value each reporting period with the change in the fair value recorded in change in fair value of derivative asset in the consolidated statements of operations. See additional information regarding valuation of the Luminant Power Agreement derivative in *Note 18. Fair Value Measurements*.

The Company may opportunistically sell electricity in the ERCOT market in exchange for cash payments, rather than utilizing the power to mine for bitcoin at the Odessa Facility to manage the Company's operating costs. From power sales, the Company earned approximately $5.4 million and $9.9 million for the years ended December 31, 2024, and 2023, respectively, and recorded this amount within costs and operating (expenses) income on the consolidated statement of operations, with the corresponding cost of the power sold recorded in Cost of revenue. See *Note 1. Organization* for information regarding the out-of-period adjustments recorded during the year ended December 31, 2023, which affected cost of power, power sales, net operating loss and net loss on the Company's consolidated statement of operations.

NOTE 5. PROPERTY AND EQUIPMENT

Property and equipment, net consisted of the following (in thousands):

	December 31, 2024	December 31, 2023
Miners and mining equipment	$ 342,111	$ 163,523
Leasehold improvements	137,582	138,883
Land	49,021	—
Infrastructure	28,166	—
Other	606	440
Construction-in-progress	82,017	49
Total cost of property and equipment	639,503	302,895
Less: accumulated depreciation	(158,638)	(59,080)
Property and equipment, net	$ 480,865	$ 243,815

As of December 31, 2024, the Company has added approximately $82.0 million of construction-in-progress related to the build-out of the Black Pearl Facility.

Depreciation expense was approximately $101.8 million and $59.0 million, respectively, for the years ended December 31, 2024 and 2023, respectively, and included approximately $1.9 million and $1.7 million for the years ended December 31, 2024 and 2023, of accretion expense related to the Company's asset retirement obligation for the Odessa Facility.

In June 2024, the Company entered into agreements with Bitmain Technologies Delaware Limited ("Bitmain") and Canaan Creative Global Pte. Ltd. ("Canaan") to purchase the new miners, which were delivered and deployed in the fourth quarter of 2024. As more efficient machines were available earlier than anticipated, this prompted a shift in the Company's planned use of the existing miners. The Company used these new miners to replace less efficient machines at the Odessa Facility instead of deploying at the Black Pearl Facility. The Company deemed this event a trigger to reevaluate the estimated useful lives of the miners, and the Company reduced the estimated useful life of miners from five years to three years. The Company changed this accounting policy effective June 1, 2024 and accounted for it prospectively. This change in estimate resulted in a $29.1 million increase in Depreciation and amortization expense, and respective reduction of Operating (loss) income, and Net (loss) income for the year ended December 31, 2024, respectively, and a $0.09 increase in Net loss per share for the year ended December 31, 2024.

As part of the asset acquisition to acquire a site in Colorado City, Texas, (the "Barber Lake Site") on September 23, 2024, the Company acquired Property and equipment of related to electrical infrastructure of $19.0 million with an estimated useful life of 20 years, and land of $49.0 million, deemed to have an indefinite life. The valuation of the site was not complete prior to the issuance of the third quarter 10-Q, resulting in a $24 million increase to land, a $7.0 million decrease to infrastructure assets, and a $17 million decrease to intangible assets.

NOTE 6. DEPOSITS ON EQUIPMENT

In the fourth quarter of 2023, the Company entered into an agreement with Bitmain to purchase 7.1 EH/s of miners to be delivered in the first half of 2025 (the "Future Sales and Purchase Agreement"). The Company has a deposit of $1.1 million remaining on this order. In addition to amending the agreement on June 5, 2024 (such amendment, the "Supplemental Agreement" to upgrade the miners and accelerate the delivery from the first half of 2025 to the fourth quarter of 2024. The Future Sales and Purchase Agreement also has an option to purchase an additional 8.7 EH/s in 2024. The Company paid $12.2 million upon signing the agreement in the fourth quarter of 2023 as a deposit, which can be used towards purchases under this option. On July 10, 2024, the Company entered into an agreement to further amend the Future Sales and Purchase agreement (the "Amendment Agreement"). The Amendment Agreement upgraded the miners to be purchased under the option, and extended the option expiration from December 31, 2024 to June 30, 2025. The Company paid an additional $6.5 million as a deposit in connection with this amendment.

In the second quarter of 2024, the Company entered into an agreement with Canaan to purchase 1.25 EH/s of miners to be delivered in the fourth quarter of 2024, all of which have been delivered with no remaining amount to be paid. Additionally, the contract included an option to purchase 160 MW of miners which the Company can exercise on or before June 30, 2025. The Company paid a deposit of $5.3 million associated with the option.

In the fourth quarter of 2024, the Company made a deposit with American Electric Power Company, Inc. (“AEP”) for $5.3 million related to construction costs to energize a wholly-owned site in LaSalle Texas (the “Reveille Facility”), as a Contributions in Aid of Construction (“CIAC”) payment.

NOTE 7. INVESTMENT IN EQUITY INVESTEES

The Company uses the equity method of accounting to account for its 49% equity interest in its partially owned mining operations Alborz LLC, Bear LLC and Chief Mountain LLC (the “Data Center LLCs”).

During fiscal year 2022, the Company contributed miners and mining equipment to the Data Center LLCs. The contributed miners had a fair value that was lower than the cost paid by the Company to obtain them. As such, the Company recognized a loss at the time of the contributions, resulting in basis differences of the miners between the Company and the Data Center LLCs, which recorded the contributions of equipment from the Company at historical cost. The Company accretes these basis differences over the life of the miners and records the accretion amount for each reporting period within equity in losses of equity investees on its statements of operations. As of December 31, 2024, the Company had remaining basis differences totaling approximately $10.3 million that have not yet been accreted.

Activity in the Company’s investments in equity investees during the year ended December 31, 2024, and 2023, consisted of the following (in thousands):

	For the Year Ended December 31,	
	2024	2023
Opening balance	$ 35,258	$ 37,478
Cost of contributed mining equipment and other capital contributions	37,122	4,435
Accretion of basis differences related to miner contributions	5,344	6,683
Capital distributions	-	(3,808)
Bitcoin received from equity investees	(18,089)	(317)
Equity in net losses of equity investees	(5,727)	(9,213)
Ending Balance	$ 53,908	$ 35,258

NOTE 8. INTANGIBLE ASSETS

The Company’s intangible assets consisted of the following (in thousands):

	December 31, 2024		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Strategic contracts	$ 7,000	$ (379)	$ 6,621
Capitalized software	2,653	(393)	2,260
Total	$ 9,653	$ (772)	$ 8,881

	December 31, 2023		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Strategic contract	$ 7,000	$ (28)	$ 6,972
Capitalized software	1,230	(93)	1,137
Total	$ 8,230	$ (121)	$ 8,109

The Company recorded amortization expense related to intangible assets of $0.7 million for the year ended December 31, 2024, and $0.1 million for the year ended December 31, 2023. The Company expects to record amortization expense as follows over the next five subsequent years:

(in thousands)	
Year Ended December 31, 2025	$ 746
Year Ended December 31, 2026	746
Year Ended December 31, 2027	746
Year Ended December 31, 2028	649
Year Ended December 31, 2029	$ 445

NOTE 9. SECURITY DEPOSITS

The Company's security deposits consisted of the following (in thousands):

	December 31, 2024	December 31, 2023
Luminant Power Purchase Agreement collateral	$ —	$ 12,554
Vistra Purchase and Sale Agreement collateral	—	3,063
Oncor Facility Extension security deposit related to Black Pearl Facility	6,269	6,269
Oncor Facility Extension security deposit related to Barber Lake Facility	8,297	—
Oncor Facility Extension security deposit related to Stingray Facility	4,244	—
Other deposits	972	1,969
Total security deposits	$ 19,782	$ 23,855

Under the Luminant Power Agreement, the Company was required to provide Luminant with collateral of approximately $12.6 million (the "Independent Collateral Amount"). The Independent Collateral Amount will remain in place throughout the term of the Luminant Power Agreement. Details of the construction of the Interconnection Electrical Facilities, including collateral arrangements that are in addition to the Independent Collateral Amount, are set out in the Purchase and Sale Agreement dated June 28, 2021, with amendment and restatement on July 9, 2021 (as amended and restated, the "Vistra Purchase and Sale Agreement") with Vistra. Under the Vistra Purchase and Sale Agreement, the Company provided approximately $3.1 million as collateral separate from the Independent Collateral Amount, which is also recorded in security deposits as of December 31, 2023. As of December 31, 2024, this collateral balance was moved to a money market account owned by the Company and is classified as restricted cash.

As part of the asset acquisition to acquire the Barber Lake Facility, the Company acquired a deposit with Oncor Electric Delivery Company LLC ("Oncor") of $8.3 million which had previously been paid by the seller. As part of the transaction, the Company must remit the deposit to the seller upon receipt. As such the Company has recorded a corresponding liability in Accrued expenses and other liabilities on the consolidated balance sheet as of December 31, 2024.

As part of the transaction to acquire a wholly-owned site in Texas (the "Stingray Facility"), the Company paid a deposit to Oncor of $4.2 million to construct infrastructure to energize the data center to be returned to the Company if the Stingray Facility uses 100 MW by May 15, 2027.

NOTE 10. SUPPLEMENTAL FINANCIAL INFORMATION

Prepaid expenses and other current assets were $3.4 million and $3.7 million as of December 31, 2024 and December 31, 2023, respectively, primarily consisting of prepaid insurance as of December 31, 2024, and December 31, 2023.

The Company's accrued expenses and other current liabilities consisted of the following (in thousands):

	December 31, 2024	December 31, 2023
Taxes (primarily sales tax)	$ 14,607	$ 15,184
Barber Lake Site Deposit Payable	8,297	—
Construction Costs	2,675	—
Employee Compensation	8,246	5,800
Remaining payments for miners in service	30,221	-
Professional fees	4,449	-
Power Costs	—	139
Legal settlement	—	1,000
Other	1,329	316
Total accrued expenses and other current liabilities	$ 69,824	$ 22,439

NOTE 11. RELATED PARTY TRANSACTIONS

Related party receivables

The Company recorded related party receivables of approximately $2.1 million and $0.2 million, as of December 31, 2024 and December 31, 2023, respectively, representing amounts owed to the Company from its equity method investees.

Purchase commitments, deposits on equipment and related party payables

On April 8, 2022, the Company entered into two agreements with the Bitfury Group, made under, and as a part of, the Master Services and Supply Agreement to purchase equipment related to data center construction. The Company and the Bitfury Group terminated the Master Services and Supply Agreement on February 28, 2024, for no additional consideration.

NOTE 12. ASSET RETIREMENT OBLIGATIONS

The following is a summary of the changes in the Company's AROs (in thousands):

Balance as of December 31, 2022	$ 16,682
Accretion expense	1,712
Balance as of December 31, 2023	$ 18,394
Accretion expense	1,888
Balance as of December 31, 2024	$ 20,282

NOTE 13. LEASES

Odessa Facility Lease

The Company entered into a series of agreements with affiliates of Luminant, including the Lease Agreement dated June 29, 2021, with amendment and restatement on July 9, 2021 and August 23, 2023 (as amended and restated, the "Luminant Lease Agreement"). The Luminant Lease Agreement leases a plot of land to the Company for the data center, ancillary infrastructure and electrical system (the "Interconnection Electrical Facilities" or "substation") of the Odessa Facility. The Company entered into the Luminant Lease Agreement and the Luminant Purchase and Sale Agreement to build the infrastructure necessary to support its Odessa Facility operations. The Company determined that the Luminant Lease Agreement and the Luminant Purchase and Sale Agreement should be combined for accounting purposes under ASC

842 (collectively, the "Combined Luminant Lease Agreement") and that amounts exchanged under the combined contract should be allocated to the various components of the overall transaction based on relative fair values. The Combined Luminant Lease Agreement is classified as a finance lease.

The Combined Luminant Lease Agreement commenced on November 22, 2022 and has an initial term of five years, with renewal provisions that are aligned with the Luminant Power Agreement. Financing for use of the land and substation is provided by Luminant affiliates.

At the end of the lease term for the Interconnection Electrical Facilities, the substation will be sold back to Luminant's affiliate, Vistra Operations Company, LLC at a price to be determined based upon bids obtained in the secondary market.

Black Pearl Facility Lease

The Company and its wholly-owned subsidiary, Cipher Black Pearl LLC ("Black Pearl"), entered into an agreement with Trinity Mining Group, Inc. ("Trinity") on December 8, 2023 to assume a lease for a 70 acre plot of land in Winkler County, Texas, for the purpose of constructing a data center, and ancillary infrastructure to construct the Black Pearl Facility. The initial term of the lease is ten years, and includes four years consecutive renewal options for ten years each.

Reveille Facility Lease

The Company and its wholly-owned subsidiary, Cipher Reveille LLC ("Reveille"), entered into an agreement with Trinity Mining Group, Inc. ("Trinity") on December 8, 2023 to assume a lease for a 52 acre plot of land in LaSalle, Texas, for the purpose of constructing a data center, and ancillary infrastructure to construct the Reveille Facility. The initial term of the lease is ten years, and includes two consecutive renewal options for ten years each.

Office leases

The Company leases office space for its headquarters in New York, New York, and office space in Charleston, South Carolina, and Denver, Colorado.

All of the Company's office leases are classified as operating leases.

Additional lease information

Components of the Company's lease expenses are as follows (in thousands):

	Year Ended December 31,	
	2024	2023
Finance leases:		
Amortization of ROU assets [1]	$ 3,043	$ 3,110
Interest on lease liability	1,430	1,940
Total finance lease expense	4,473	5,050
Operating leases:		
Operating lease expense	2,167	1,955
Total operating lease expense	2,167	1,955
Total lease expense	$ 6,640	$ 7,005

(1) Amortization of finance lease ROU asset is included within depreciation expense.

The Company did not incur any variable lease costs during any of the periods presented.

Other information related to the Company's leases is shown below (dollar amounts in thousands):

	Year Ended December 31,	
	2024	2023
Operating cash flows - operating lease	$ 2,138	$ 1,655
Right-of-use assets obtained in exchange for finance lease liabilities	$ —	$ 14,212
Right-of-use assets obtained in exchange for operating lease liabilities	$ 6,733	$ 2,812

	December 31, 2024	December 31, 2023
Weighted-average remaining lease term – finance lease (in years)	2.7	3.7
Weighted-average remaining lease term – operating lease (in years)	8.0	5.8
Weighted-average discount rate – finance lease	11.0 %	11.0 %
Weighted-average discount rate – operating lease	8.0 %	10.0 %
Finance lease ROU assets[(1)]	$ 8,117	$ 11,160

(1) As of December 31, 2024, the Company recorded accumulated amortization of $4.3 million for the finance lease ROU asset. Finance lease ROU assets are recorded within property and equipment, net on the Company's consolidated balance sheets.

As of December 31, 2024, future minimum lease payments during the next five years are as follows (in thousands):

	Finance Lease	Operating Lease	Total
Year Ended December 31, 2025	$ 4,834	$ 4,112	$ 8,946
Year Ended December 31, 2026	4,834	2,293	7,127
Year Ended December 31, 2027	3,223	2,304	5,527
Year Ended December 31, 2028	—	2,284	2,284
Year Ended December 31, 2029	-	1,111	1,111
Thereafter	-	6,668	6,668
Total lease payments	12,891	18,772	31,663
Less present value discount	(1,762)	(5,812)	(7,574)
Total	$ 11,129	$ 12,960	$ 24,089

NOTE 14. COMMITMENTS AND CONTINGENCIES

Commitments

In the normal course of business, the Company enters into contracts that contain a variety of indemnifications with its employees, licensors, suppliers and service providers. The Company's maximum exposure under these arrangements, if any, is unknown as of December 31, 2024.

Contingencies

The Company, and its subsidiaries, are subject at times to various claims, lawsuits and governmental proceedings relating to the Company's business and transactions arising in the ordinary course of business. The Company cannot predict the final outcome of such proceedings. Where appropriate, the Company vigorously defends such claims, lawsuits and proceedings. Some of these claims, lawsuits and proceedings seek damages, including consequential, exemplary or punitive damages, in amounts that could, if awarded, be significant. Certain of the claims, lawsuits and proceedings arising in the ordinary course of business are covered by the Company's insurance program. The Company maintains property and various types of liability insurance in an effort to protect the Company from such claims. In terms of any matters where there is no insurance coverage available to the Company, or where coverage is available and the Company maintains a retention or deductible associated with such insurance, the Company may establish an accrual for such loss, retention or deductible based on current available information. In accordance with accounting guidance, if it is probable that an asset has been impaired or a liability has been incurred as of the date of the financial statements, and the amount of loss is reasonably estimable, then an accrual for the cost to resolve or settle these claims is recorded by the Company in the accompanying consolidated balance sheets. If it is reasonably possible that an asset may be impaired as of the date of the financial statements, then the Company discloses the range of possible loss. Expenses related to the defense of such claims are recorded by the Company as incurred and included in the accompanying consolidated statements of operations. Management, with the assistance of outside counsel, may from time to time adjust such accruals according to new developments in the matter, court rulings, or changes in the strategy affecting the Company's defense of such matters. On the basis of current information, the Company does not believe there is a reasonable possibility that a material loss, if any, will result from any claims, lawsuits and proceedings to which the Company is subject to either individually, or in the aggregate.

Litigation

The Company is not a party to any material legal proceedings and is not aware of any pending or threatened claims. From time to time, the Company may be subject to various legal proceedings and claims that arise in the ordinary course of its business activities.

NOTE 15. STOCKHOLDERS' EQUITY

As of December 31, 2024, 510,000,000 shares with a par value of $0.001 per share are authorized, of which, 500,000,000 shares are designated as Common Stock and 10,000,000 shares are designated as preferred stock ("Preferred Stock").

Common Stock

Holders of each share of Common Stock are entitled to dividends when, as and if declared by the Board. As of the issuance of these consolidated financial statements, the Company had not declared any dividends. The holder of each share of Common Stock is entitled to one vote. The voting, dividend, liquidation and other rights and powers of the Common Stock are subject to and qualified by the rights, powers and preferences of any outstanding series of Preferred Stock, for which there currently are none outstanding.

During the year ended December 31, 2024, the Company issued 11,934,578 shares of Common Stock to officers, employees and consultants in settlement of an equal number of fully vested RSUs awarded to these individuals, and 395,577 shares of Common Stock to non-employee directors, pursuant to grants made under the Cipher Mining Inc. 2021 Incentive Award Plan (the "Incentive Award Plan"). The Company immediately repurchased 5,329,958 of these shares of Common Stock from officers and employees, with a fair value of approximately $27.6 million, to cover taxes related to the settlement of vested RSUs, as permitted by the Incentive Award Plan. The Company placed the repurchased shares in treasury stock.

At-the-Market Sales Agreement

On September 21, 2022, the Company filed with the SEC a shelf registration statement on Form S-3, which was declared effective on October 6, 2022 (the "Registration Statement"). In connection with the filing of the Registration Statement, the Company also entered into an at-the-market offering agreement (the "Prior Sales Agreement") with H.C. Wainwright & Co., LLC (the "Prior Agent"), under which the Company may, from time to time, sell shares of its Common Stock having an aggregate offering price of up to $250.0 million in "at-the-market" offerings through the Prior Agent. Effective August 1, 2023, the Company terminated the Prior Sales Agreement.

On August 3, 2023, the Company entered into a Controlled Equity Offering℠ Sales Agreement (the "Sales Agreement") with Cantor Fitzgerald & Co., Canaccord Genuity LLC, Needham & Company, LLC and Compass Point Research & Trading, LLC (each, an "Original Agent" and, together, the "Original Agents"), pursuant to which the Company may offer and sell, from time to time through or to the Agents, shares of its Common Stock, for aggregate gross proceeds of up to $250.0 million. The offering and sale of up to $250.0 million of the shares has been registered under the Registration Statement, the base prospectus contained within the Registration Statement, and a prospectus supplement that was filed with the SEC on August 4, 2023 (the "Prospectus Supplement").

On March 6, 2024, the Company entered into an amendment (the "Amendment") to the Sales Agreement (as amended, the "Amended Sales Agreement") by and among the Original Agents, Stifel, Nicolaus & Company, Incorporated ("Stifel") and Virtu Americas LLC ("Virtu"). The Amendment modifies the Sales Agreement to include Stifel and Virtu as additional agents under the Amended Sales Agreement. On March 6, 2024, the Company also filed an amendment to the Prospectus Supplement (i) increasing the dollar amount of shares available to be sold pursuant to the Amended Sales Agreement, to

$296,560,661, which consists of $96,560,661 remaining as originally authorized under the Prospectus Supplement and an additional $200,000,000, and (ii) including Stifel and Virtu as additional agents.

On September 3, 2024, the Company amended and restated the Amended Sales Agreement (as amended and restated, the "Amended and Restated Sales Agreement") with the Original Agents, Keefe, Bruyette & Woods, Inc. ("KBW"), Virtu and BTIG, LLC ("BTIG") (each, an "Agent" and, together, the "Agents"). The Amended and Restated Sales Agreement modified the Amended Sales Agreement to, among other things, include BTIG as an additional Agent under the Amended and Restated Sales Agreement and to replace Stifel with KBW as an Agent under the Amended and Restated Sales Agreement.

Pursuant to the Amended and Restated Sales Agreement, the Company may offer and sell, from time to time through or to the Agents, shares of the Company's Common Stock, for aggregate gross proceeds of up to $725.7 million (the "Shares"), which consists of (i) up to $125.7 million remaining as authorized under the Company's Registration Statement, the base prospectus contained within the Registration Statement, and the Prospectus Supplement, as amended on September 3, 2024 and (ii) up to $600.0 million of Shares, which can be issued and sold pursuant to the Company's shelf registration statement on Form S-3ASR, filed with the SEC on September 3, 2024, which became immediately effective upon filing, and a prospectus supplement dated September 3, 2024, filed by the Company with the SEC.

Pursuant to the Amended and Restated Sales Agreement, the Agent selected by the Company (such Agent, the "Designated Agent") may sell the Shares in sales deemed to be "at-the-market offerings" as defined in Rule 415(a)(4) promulgated under the Securities Act. The Company has no obligation to sell any of the Shares under the Amended and Restated Sales Agreement and may at any time suspend or terminate the offering of the Shares pursuant to the Amended and Restated Sales Agreement upon notice and subject to other conditions. The Agents will act as sales agents and will use commercially reasonable efforts to sell on the Company's behalf all of the Shares requested to be sold by it, on mutually agreed terms between the Agents and the Company. Under the terms of the Amended and Restated Sales Agreement, the Company agreed to pay the Designated Agent a commission up to 3.0% of the aggregate gross proceeds from any Shares sold through such Designated Agent pursuant to the Amended and Restated Sales Agreement. In addition, the Company agreed to reimburse certain expenses incurred by the Agents in connection with the Amended and Restated Sales Agreement. During the year ended December 31, 2024, in connection with the Amended and Restated Sales Agreement, the Company received proceeds of $221,694,665, net of issuance costs, from the sale of 52,825,758 shares of common stock, with an average net selling price of $4.20 per share.

NOTE 16. WARRANTS

Upon consummation of the business combination, the Company assumed Common Stock warrants that were originally issued in GWAC's initial public offering (the "Public Warrants"), as well as warrants that were issued in a private placement that closed concurrently with GWAC's initial public offering (the "Private Placement Warrants"). The Public and Private Placement Warrants entitle the holder to purchase one share of Common Stock at an exercise price of $11.50 per share, subject to adjustment. There were 8,499,980 Public Warrants and 114,000 Private Placement Warrants outstanding as of December 31, 2023, and 8,613,980 Public Warrants and no Private Placement Warrants outstanding as of December 31, 2024. The exercise price and number of shares of Common Stock issuable on exercise of the warrants may be adjusted in certain circumstances including in the event of a stock dividend, extraordinary dividend or the Company's recapitalization, reorganization, merger or consolidation. However, the warrants will not be adjusted for issuances of shares of Common Stock at a price below their respective exercise prices. Additionally, in no event will the Company be required to net cash settle the warrants.

NOTE 17. SHARE-BASED COMPENSATION

The Cipher Mining Inc. 2021 Incentive Award Plan (the "Incentive Award Plan") provides for the grant of stock options, including incentive stock options and nonqualified stock options, stock appreciation rights, RSUs and other stock or cash-based awards to employees, consultants and directors. Upon vesting of an award, the Company may either issue new shares or reissue treasury shares.

Initially, up to 19,869,312 shares of Common Stock were available for issuance under awards granted pursuant to the Incentive Award Plan. In addition, the number of shares of Common Stock available for issuance under the Incentive Award Plan is increased on January 1 of each calendar year beginning in 2022 and ending in 2031 by an amount equal to the lesser of (a) three percent (3%) of the total number of shares of Common Stock outstanding on the final day of the immediately preceding calendar year and (b) such smaller number of shares determined by the Board. On January 1, 2024, this resulted in an increase of 8,728,736 shares of Common Stock available for issuance under the Incentive Award Plan. As of December 31, 2024, 8,646,554 shares of Common Stock were available for issuance under the Incentive Award Plan.

The Company recognized total share-based compensation in Compensation and benefits on the consolidated statements of operations for the following categories of awards as follows (in thousands):

	Year Ended December 31,	
	2024	2023
Service-based RSUs	$ 35,440	$ 24,936
Performance-based RSUs	5,167	12,630
Common stock, fully-vested	1,526	904
Total share-based compensation expense	$ 42,133	$ 38,470

Service-Based RSUs

A summary of the Company's unvested Service-Based RSU activity for the year ended December 31, 2024 is shown below:

	Number of Shares	Weighted Average Grant Date Fair Value
Unvested at December 31, 2023	17,047,242	$ 3.23
Granted	10,850,313	$ 3.19
Forfeited	(40,757)	$ 2.69
Vested	(11,934,578)	$ 3.97
Unvested at December 31, 2024	15,922,220	$ 2.65

As of December 31, 2024, there was approximately $21.1 million of unrecognized compensation expense related to unvested Service-Based RSUs, which is expected to be recognized over a weighted-average vesting period of approximately 1.2 years.

If not fully vested upon grant, Service-based RSUs awarded generally vest over a period ranging from three to four years in equal installments on the award's anniversary of the vesting commencement date, as determined by the Board, and which may precede the grant date. Vesting is subject to the award recipient's continuous service on the applicable vesting date; provided, that if the award recipient's employment is terminated by the Company without "cause", by award recipient for "good reason" (if applicable, as such term or similar term may be defined in any employment, consulting or similar service agreement between award recipient and the Company) or due to award recipient's death or permanent disability, all unvested Service-based RSUs will vest in full (unless otherwise specified in the agreement between the award recipient and the Company). In addition, in the event of a change in control, any unvested Service-based RSUs will vest subject to the award recipient's continuous service to the Company through such change in control. In addition, if the Company achieves a $10 billion market capitalization milestone (described further below) and the Chief Executive Officer ("CEO") remains in continuous service through such achievement, any then-unvested Service-based RSUs awarded to the CEO will also vest.

Performance-Based RSUs

There was no new activity for unvested Performance-Based RSUs during the year ended December 31, 2024. There were 4,257,710 unvested Performance-Based RSUs at a weighted average grant date fair value of $7.76 as of both December 31, 2024 and 2023. There was no unrecognized compensation expense related to unvested Performance-Based RSUs at December 31, 2024.

One-third of the outstanding Performance-Based RSUs will vest upon the Company achieving a market capitalization equal to or exceeding $5 billion, $7.5 billion and $10 billion, in each case over a 30-day lookback period and subject to the CEO's continuous service through the end of the applicable 30-day period. In the event of a change in control and CEO's continuous service through such change in control, the per share price (plus the per share value of any other consideration) received by the Company's stockholders in such change in control will be used to determine whether any of the market capitalization milestones are achieved (without regard to the 30-day lookback period). Any Performance-Based RSUs that do not vest prior to the CEO's termination of service or, if earlier, in connection with a change in control will be forfeited for no consideration

NOTE 18. FAIR VALUE MEASUREMENTS

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Financial assets and liabilities measured at fair value are classified and disclosed in one of the following categories based on the inputs used to derive the fair value:

Level 1 — Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2 — Quoted prices in markets that are not active and financial instruments for which all significant inputs are observable, either directly or indirectly; or

Level 3 — Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable

The Company's financial assets and liabilities subject to fair value measurement on a recurring basis and the level of inputs used for such measurements were as follows as of the dates indicated (in thousands):

	Fair Value Measured as of December 31, 2024			
	Level 1	Level 2	Level 3	Total
Assets included in:				
Cash and cash equivalents				
Money market securities	$ 4,314	$ -	$ -	$ 4,314
Restricted cash				
Money market securities	14,392	$ -	$ -	14,392
Bitcoin	92,651	$ -	$ -	92,651
Receivable for bitcoin collateral	-	32,248	-	32,248
Accounts receivable	596	-	-	596
Derivative asset	-	-	85,670	85,670
	$ 111,953	$ 32,248	$ 85,670	$ 229,871
Liabilities included in:				
Short-term borrowings				
Bitcoin loan payable	$ 7,330	$ -	$ -	$ 7,330
	$ 7,330	$ -	$ -	$ 7,330

	Fair Value Measured as of December 31, 2023			
	Level 1	Level 2	Level 3	Total
Assets included in:				
Cash and cash equivalents				
Money market securities	$ 65,945	$ -	$ -	$ 65,945
Bitcoin	32,978	$ -	-	32,978
Accounts receivable	622	-	-	622
Derivative asset	-	-	93,591	93,591
	$ 99,545	$ -	$ 93,591	$ 193,136
Liabilities included in:				
Warrant liability	$ -	$ -	$ 250	$ 250
	$ -	$ -	$ 250	$ 250

The carrying values reported in the Company's consolidated balance sheets for cash (excluding cash equivalents which are recorded at fair value on a recurring basis), accounts payable and accrued expenses and other current liabilities are reasonable estimates of their fair values due to the short-term nature of these items.

There were no transfers of financial instruments between Level 1, Level 2 and Level 3 during the years ended December 31, 2024 and December 31, 2023.

Level 3 asset

The Company's derivative asset, related to the Luminant Power Agreement, is divided between current and noncurrent assets, and was initially recorded on its consolidated balance sheets on the derivative asset's effective date of July 1, 2022, with an offsetting amount recorded to change in fair value of derivative asset in costs and operating expenses on the consolidated statements of operations. Subsequent changes in fair value are also recorded to change in fair value of derivative asset. The Luminant Power Agreement was not designated as a hedging instrument. The estimated fair value of the Company's derivative asset was derived from Level 2 and Level 3 inputs (i.e., unobservable inputs) due to a lack of quoted prices for similar type assets and as such, is classified in Level 3 of the fair value hierarchy. Specifically, the discounted cash flow estimation models contain quoted spot and forward prices for electricity, as well as estimated usage rates consistent with the terms of the Luminant Power Agreement, the initial term of which is five years, and a remaining term of approximately 2.6 years. The valuations performed by the third-party valuation firm engaged by the Company utilized pre-tax discount rates of 5.96% and 6.11% as of December 31, 2024 and December 31, 2023, respectively, and include observable market inputs, but also include unobservable inputs based on qualitative judgment related to company-specific risk factors. Unrealized gains associated with the derivative asset within the Level 3 category include changes in fair value that were attributable to amendments to the Luminant Power Agreement, changes to the quoted forward electricity rates, as well as unobservable inputs (e.g., changes in estimated usage rates and discount rate assumptions).

The following table presents the changes in the estimated fair value of the derivative asset measured using significant unobservable inputs (Level 3) for the year ended December 31, 2024 and 2023 (amounts in thousands):

	Year Ended December 31,	
	2024	2023
Opening balance	$ 93,591	$ 66,702
Change in fair value	(7,921)	26,889
Ending balance	$ 85,670	$ 93,591

Level 3 liability

The Company's Private Placement Warrants (as defined in *Note 15. Warrants*) were its only liability classified within Level 3 of the fair value hierarchy because the fair value is based on significant inputs that are unobservable in the market. The valuation of the Private Placement Warrants used assumptions and estimates the Company believes would be made by a market participant in making the same valuation. As of March 31, 2024, all Private Placement Warrants were converted to Public Warrants, and as such no Private Placement Warrants were outstanding as of December 31, 2024.

The Company engaged a valuation firm to determine the fair value of the Private Placement Warrants using a Black-Scholes option-pricing model and the quoted price of Common Stock. The following table presents significant assumptions utilized in the valuations of the Private Placement Warrants as of the dates indicated:

	December 31, 2023
Risk-free rate	4.00%
Dividend yield rate	0.00%
Volatility	124.0%
Contractual term (in years)	2.7
Exercise price	$11.50

The following table presents changes in the estimated fair value of the Private Placement Warrants (amounts in thousands):

Balance as of December 31, 2023	$	250
Change in fair value		(250)
Balance as of December 31, 2024	$	—
Balance as of December 31, 2022	$	7
Change in fair value		243
Balance as of December 31, 2023	$	250

NOTE 19. SHORT-TERM BORROWINGS

Coinbase Master Loan Agreement

The Company has the Coinbase Master Loan Agreement, under which the Company established the Coinbase Overnight Credit Facility of $25.0 million. The Company will not incur commitment fees for unused portions of the Coinbase Overnight Credit Facility. The borrowing rate on amounts drawn against the Credit Facility is determined based on the Federal Funds Target Rate - Upper Bound, plus 2.5%, calculated daily based on a 365-day year and payable monthly for the duration of the loan, and market demand. Borrowings under the Coinbase Overnight Credit Facility are available on demand, open term, and collateralized by bitcoin transferred to the Lending Service Provider’s platform. Since the Lender has the right to rehypothecate the bitcoin held as collateral, the Company derecognized the bitcoin transferred. The Company has the right to receive the bitcoin back from the Lender upon repayment of the Coinbase Overnight Credit Facility, and as such recognized a receivable for bitcoin collateral measured at fair value of the bitcoin to be received upon repayment. The Company may also withdraw bitcoin if the loan becomes over-collateralized due to increases in bitcoin price.

Under the Coinbase Master Loan Agreement, the Company also established the “Term Loan Facility” with a limit of $35.0 million and maximum period of one year, with an interest rate to be determined upon drawdown. Coinbase has the right to terminate loans under the Term Loan Facility if the price of bitcoin falls below $40,000.

As of December 31, 2024, the Company had $25.0 million outstanding on the Coinbase Overnight Credit Facility, at a weighted average interest rate of 9.5%. The Company had no balance outstanding on the Coinbase Overnight Credit Facility as of December 31, 2023. The Company had no balance outstanding on the Term Loan Facility as of December 31, 2024 or 2023.

Luxor Purchase and Sale Agreement

On December 13, 2024, the Company entered into an agreement with Luxor Technology Corporation (“Luxor”) to borrow 98.57 bitcoin to be repaid over 95 days at a rate of roughly 1.06 bitcoin per day for a total repayment of approximately 100.38 bitcoin. The Company records the outstanding balance at fair value in Short-term borrowings based on the current bitcoin price, with changes in fair value recorded in Other income. As of December 31, 2024, the Company owed approximately 80.30 bitcoin valued at $7.3 million related to this agreement.

NOTE 20. SEGMENT REPORTING

The Company has one operating segment, Bitcoin Mining, which through operations produce bitcoin to generate revenue. The Chief Operating Decision Maker (“CODM”) for the Company consists of the CEO and chief financial officer (“CFO”). The CODM reviews the performance of its segment primarily based on operating income when deciding on allocating resources between reinvesting in Bitcoin Mining or exploring alternative deployment of resources. Asset information is not regularly provided to the CODM for resource allocation as a large portion of assets are property and equipment that cannot be repurposed for other revenue streams.

The Company’s revenues, significant expenses, operating income, and net income by segment for the years ended December 31, 2024 and 2023 is summarized in the following table (in thousands):

Year Ended December 31, 2024

	Bitcoin Mining	Consolidated
Revenue - bitcoin mining	$ 151,270	$ 151,270
Costs and operating (expenses) income		
Cost of revenue	(62,364)	
Depreciation and amortization	(102,448)	
Change in fair value of derivative asset	(7,921)	
Unrealized gains on fair value of bitcoin	11,313	
Realized gains on sale of bitcoin	51,548	
Equity in losses of equity method investees	(384)	
Other segment items(1)	8,738	
Segment operating income	49,752	49,752
Adjustments(2)		(93,451)
Operating loss		(43,699)
Interest income		3,384
Interest expense		(1,708)
Other non-operating items(3)		(2,294)
Loss before taxes		$ (44,317)

Year Ended December 31, 2023

	Bitcoin Mining	Consolidated
Revenue - bitcoin mining	$ 126,842	$ 126,842
Costs and operating (expenses) income		
Cost of revenue	(50,309)	
Depreciation and amortization	(59,093)	
Change in fair value of derivative asset	26,836	
Unrealized gains on fair value of bitcoin	3,299	
Realized gains on sale of bitcoin	7,739	
Equity in losses of equity method investees	(2,530)	
Other segment items(1)	12,296	
Segment operating income	65,080	65,080
Adjustments(2)		(85,195)
Operating loss		(20,115)
Interest income		164
Interest expense		(1,999)
Other non-operating items(3)		(260)
Loss before taxes		$ (22,210)

(1) Other segment items included in Bitcoin Mining include Power sales, and Other gains.

(2) Other operating items included in adjustments include Compensation and benefits, and General and administrative.

(3) Other non-operating items include Change in fair value of warrant liability, and Other expense.

NOTE 21. INCOME TAXES

For the years ended December 31, 2024, and 2023, the Company recorded a deferred tax expense related to an increase in deferred tax liabilities associated with derivatives and joint venture instruments (refer to *Note 7. Investment In Equity*

Investees for more details on the Company's joint ventures). Current income taxes are based upon the current period's income taxable for federal and state tax reporting purposes. Deferred income taxes (benefits) are provided for certain income and expenses, which are recognized in different periods for tax and financial reporting purposes. Deferred tax assets and liabilities are computed for differences between the financial statements and tax bases of assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates applicable to the period in which the differences are expected to affect taxable income, and net operating loss ("NOL") carryforwards.

The components of the Company's income tax provision are listed below (in thousands):

	Year Ended December 31, 2024	Year Ended December 31, 2023
Current:		
State	$ 1,255	$ 201
Total current	1,255	201
Deferred:		
Federal	$ (937)	$ 3,366
Total deferred	(937)	3,366
Income tax provision	$ 318	$ 3,567

A reconciliation of the expected tax computed at the U.S. statutory federal income tax rate to the total expense for income taxes is shown below:

	Year Ended December 31, 2024	Year Ended December 31, 2023
Income tax benefit at federal statutory rate	21.0 %	21.0 %
State taxes, net of federal benefit	(2.3)%	(0.7)%
162m limitations	(20.3)%	(5.3)%
Stock compensation	9.7 %	(30.3)%
Permanent differences	(0.1)%	(0.5)%
Difference and changes in tax rates	0.0 %	0.0 %
RTP and other	2.5 %	(16.2)%
Change in valuation allowance	(11.2)%	16.1 %
Income tax provision	(0.7)%	(15.9)%

Significant components of the Company's deferred tax assets and liabilities were as follows:

	December 31, 2024	December 31, 2023
Deferred tax assets:		
Net operating loss carryforwards	$ 25,521	$ 27,075
Share-based compensation	2,117	2,109
Accruals and other temporary differences	3,517	2,317
Intangible assets	3,432	3,762
Lease liability	5,113	4,622
Property and equipment, net	5,440	—
Non-deductible interest	59	-
Gross deferred tax assets	45,199	39,885
Valuation allowance	(13,461)	(8,520)
Net deferred tax assets	31,738	31,365
Deferred tax liabilities:		
Right-of-use asset	(5,305)	(3,835)
Derivatives	(18,316)	(19,669)
Joint venture investments	(9,430)	(11,268)
Bitcoin holdings	(2,956)	(434)
Property and equipment, net	—	(1,365)
Gross deferred tax liabilities	(36,007)	(36,571)
Net deferred tax liabilities	$ (4,269)	$ (5,206)

As required by ASC 740, management of the Company has evaluated the evidence bearing upon the realizability of its deferred tax assets. Based on the weight of available evidence, both positive and negative, management has determined that it is more likely than not that the Company will not realize the benefits of these assets. Accordingly, the Company recorded a valuation allowance of $13.5 million as of December 31, 2024. The valuation allowance increased by $4.9 million during the year ended December 31, 2024, primarily as a result of the increased tax basis over book basis in property and equipment and the net operating losses generated in the current year.

As of December 31, 2024, the Company had federal, and state and local NOL carryforwards of approximately $116.7 million and $19.7 million, respectively. The federal NOL carryforwards do not expire, but the state and local NOL carryforwards expire if not utilized prior to 2043.

Utilization of the U.S. federal and state NOL carryforwards may be subject to a substantial annual limitation under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, due to ownership changes that have occurred previously or that could occur in the future. These ownership changes may limit the amount of NOL carryforwards that can be utilized annually to offset future taxable income and tax liabilities, respectively. The Company has not completed a study to assess whether a change of ownership has occurred, or whether there have been multiple ownership changes since its formation, due to the significant cost and complexity associated with such a study. Any limitation may result in expiration of a portion of the NOL carryforwards before utilization. Further, until a study is completed by the Company and any limitation is known, no amounts are being presented as an uncertain tax position.

At December 31, 2024 and December 31, 2023, the Company did not have any significant uncertain tax positions. The Company will recognize interest and penalties related to uncertain tax positions in income tax expense. The Company had no accrued interest or penalties related to uncertain tax positions in either period. The Company does not anticipate a material change to unrecognized tax benefits in the next year.

NOTE 22. SUBSEQUENT EVENTS

The Company has evaluated subsequent events for adjustment to or disclosure in its consolidated financial statements through the date of this report. No subsequent events have been identified other than those disclosed in these consolidated financial statements except for the following:

On January 30, 2025, the Company entered into a subscription agreement with Star Beacon LLC, a wholly owned subsidiary of SoftBank Group Corp. ("SoftBank"), pursuant to which, among other things, SoftBank agreed to subscribe for and purchase from the Company, and the Company agreed to issue and sell to SoftBank, an aggregate of approximately 10,438,413 newly issued shares of the Company's common stock, par value $0.001, at a per share purchase price of $4.79 for an aggregate purchase price of approximately $50 million. As part of this transaction, the Company agreed with SoftBank that prior to February 28, 2025, the Company would not enter into binding definitive documentation with respect to the sale, transfer, divestiture or encumbrance of the Company's Barber Lake property with any person other than SoftBank and its affiliates.

On January 31, 2025, the Company executed its option as part of the Amendment Agreement, further described in *Note 6. Deposits on equipment*, with Bitmain to obtain Antminer S21 XP miners for delivery between May and June 2025. The Company intends to use these machines at the Black Pearl Facility. As of February 25, 2025, the Company owes $139 million remaining for these machine purchases.

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