HUT 8

Q2 2024 Earnings Conference Call

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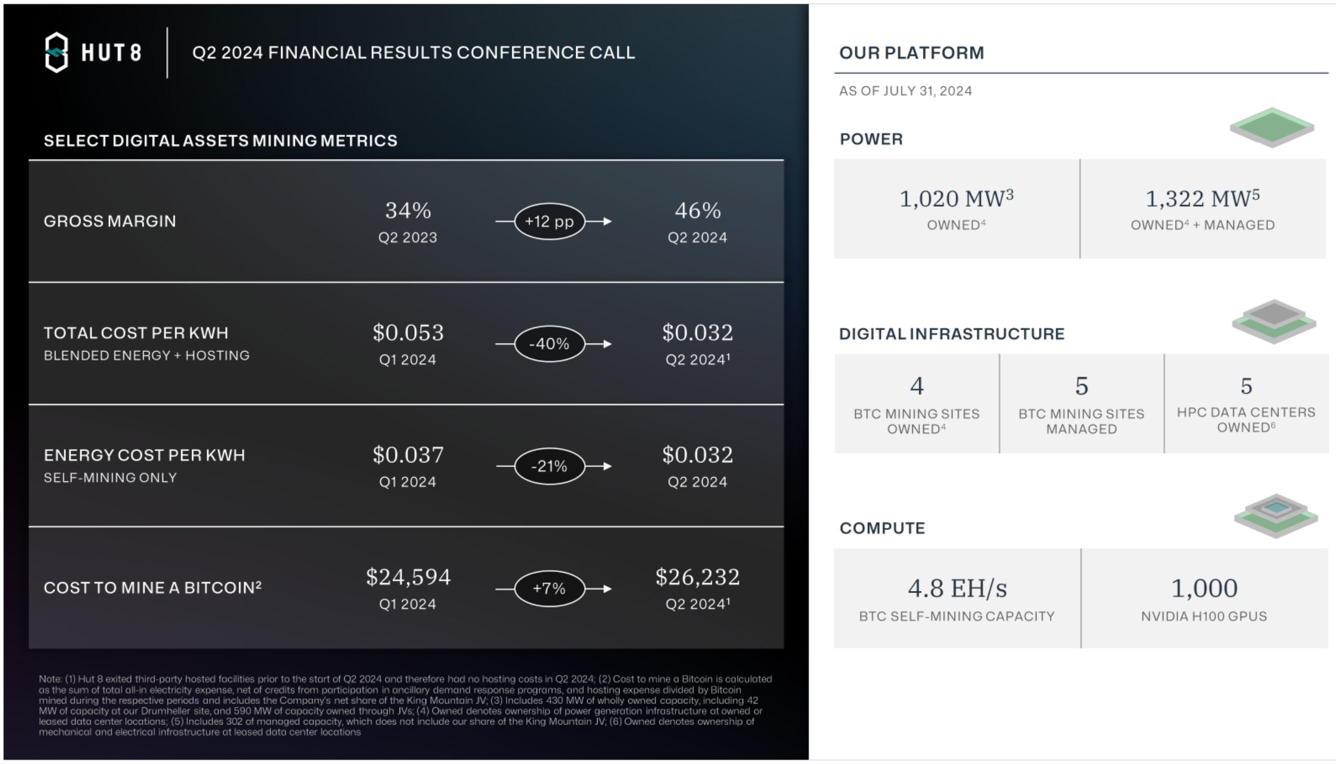
Hut 8 Speakers

Asher Genoot
Chief Executive Officer

Shenif Visram
Chief Financial Officer (outgoing)

Sean Glennan
Chief Financial Officer (incoming)



Operator

Good morning, and welcome to Hut 8 Q2 2024 Financial Results Conference call. After today's presentation, there will be an opportunity to ask questions. Please note that this event is being recorded and a transcript will be available on Hut 8's website. In addition to the press release issued earlier today, you can find Hut 8's quarterly report on Form 10-Q on the company's website at www.hut8.com, under the company's EDGAR profile at www.sec.com, and under the company's Cedar Plus profile at www.cedarplus.ca.

Unless noted otherwise, all accounts referred to during the call are denominated in US dollars. Any comments made during this call may include forward-looking statements within the meaning of applicable security laws regarding Hut 8 Corp. and its subsidiaries. The statements may reflect current expectations and as such are subject to a variety of risks and uncertainties that could cause actual results to differ materially from current expectations. These risks and uncertainty include but are not limited to factors discussed in Hut 8's Form 10-Q for the three and six months ended June 30th, 2024, and Form 10-K for the year ended December 31st, 2023, as well as the company's other continuous disclosure documents except as if required by applicable law, Hut 8 undertakes no obligation to publicly update or review any forward-looking statements.

During the call, management may also make reference to certain non-GAAP measures that are not separately defined under GAAP, such as adjusted EBITDA. Management believes that non-GAAP measures taken in conjunction with GAAP financial measures provide useful information for both management and investors. Reconciliations between GAAP and non-GAAP results are presented in the tables accompanying the press release, which can be viewed on Hut 8's website. I would now like to turn the call over to Asher Genoot, CEO of Hut 8.

Asher Genoot, Chief Executive Officer

Good morning, everyone. Thank you for joining us today as we look back at an incredibly important quarter for Hut 8.

In any market, businesses must navigate the inevitable ebb and flow of macro headwinds and tailwinds. In Bitcoin mining, the network halving is among the most powerful of these forces. While we cannot control forces like the halving, we can control how we respond to the challenges they create. We believe the hallmark of an enduring business is the ability to create value across market cycles.

Today, our business is more resilient than ever. Our results this quarter demonstrate that we have delivered on the commitment we made six months ago, when I became CEO, to center the business on operational excellence and bottom-line economics.

I'll share the highlights now, and Shenif will discuss our results in detail. As a reminder, the current period reflects the combined company's performance, while the comparison period reflects US Bitcoin Corp's performance as a standalone business prior to the merger.

Our revenue grew 72% year-over-year to $35.2 million for the three months ended June 30, 2024. Net loss attributable to Hut 8 for the quarter was $71.9 million versus a loss of $1.7 million in the prior year, and adjusted EBITDA was a loss of $57.5 million versus $14.8 million in the prior year. Both net loss and adjusted EBITDA reflect a loss on digital assets of $71.8 million in accordance with the new FASB fair value accounting rules.

But these figures tell only part of the story.

Despite the impact of the halving on topline production and revenue, we achieved significant gross margin expansion in our Digital Assets Mining business, from 34% to 46% year-over-year. Even with the 71% increase in network difficulty over the same period, our relentless focus on bottom-line economics enabled us to deliver 12 points of gross margin expansion.

This success stems from the ambitious restructuring program we launched six months ago, which included the shutdown of our underperforming Drumheller site, the energization our new Salt Creek site, the relocation of our fleet from hosted to owned facilities, and the rollout of our proprietary energy curtailment software, Reactor.

These initiatives have materially improved our unit economics. In the first quarter, our blended cost across self-mining and hosted operations was 5.3 cents per kilowatt hour. In the second quarter, after exiting third-party hosted facilities, implementing our operating technology, and upgrading our infrastructure, this figure decreased to 3.2 cents–a 40% reduction quarter-over-quarter.

Furthermore, our average cost of energy per kilowatt-hour, which reflects self-mining only, decreased 21% over the same period. Assuming all other factors remain constant, the cost to mine a Bitcoin would increase by

100%immediately after a halving event. We limited the increase in our average cost to mine a Bitcoin to just 7% quarter-over-quarter, bringing it to $26,232.

What is most notable is that we accomplished this with one of the oldest fleets in the industry, averaging 31.7 joules per terahash. Now, consider the transformational potential of a large-scale fleet upgrade. Next-generation miners operating at 12 joules per terahash could revolutionize our economics, potentially increasing the deployed hashrate of our existing infrastructure by more than 2.5x. I'll return to this idea later.

If there's a takeaway, it's this:

We prioritize fundamentals above all else, and we invest capital only when we believe it will create enduring shareholder value. This philosophy has guided us in the past and will continue to guide us in the future.

Every quarter, we step back to assess our performance and measure our progress. All the while, we continue to play the long game. Building a resilient, generational business requires nothing less. In that vein, let's turn to our strategic priorities for the coming quarters.

Our business is built on a vertically integrated platform spanning hard assets, products, services, capabilities, and technology. We think about this platform as a stack of three interconnected layers.

The foundation of our platform is the power layer, comprising assets like interconnects, land, and electrical assets. The second layer is digital infrastructure, comprising purpose-built data centers and other load resources. And the third layer is compute, comprising application-specific hardware for energy-intensive technologies like Bitcoin mining and AI compute. Think of the power layer as our operating system, the digital infrastructure layer as our app store, and the compute layer as the applications we power.

Power, digital infrastructure, and compute—each layer of our platform addresses a distinct market with unique challenges, opportunities, economics, and return profiles. Together, they form a vertically integrated platform poised to seize a much larger, generational opportunity at the intersection of energy and technology. We aim to maximize long-term value creation by playing across the value chain and delivering a differentiated value proposition at each layer of our platform. This model is central to our approach to resource allocation, competitive differentiation, and growth.

The broader implication is that we do not view ourselves merely as a Bitcoin mining or AI business—we are a power business. Our aim is to maximize load capacity secured in our power layer for the long-term. What we do with that power to maximize returns across our digital infrastructure and compute layers will evolve over time as markets and technologies evolve.

With that in mind, let's discuss our strategic priorities at each layer.

First, the power layer.

We believe high-quality power assets will become increasingly valuable as the demand for energy to support Bitcoin mining, AI, and other emerging technologies continues to rise. Our goal is to build a scaled power portfolio capable of meeting this demand across existing and new technologies. To that end, we are aggressively advancing our gigawatt-scale development pipeline.

Our team strives to deeply understand the demands of our load profiles and how they impact power markets. Deep domain expertise in both power and technology enables us to place loads strategically, unlocking access to what we believe are the most attractive development opportunities in the market.

In building our portfolio, we prioritize quality as much as scale. Our deep market connectivity and strong deal flow allow us to be highly selective. We optimize across critical drivers of value, including scale, cost of acquisition, cost of power, term of power, and term of site control, to construct a portfolio that commands a market premium and drives long-term value creation.

Our gigawatt-scale pipeline is evidence of the effectiveness of our strategy. Since the merger, we have converted 268 megawatts of high-quality greenfield capacity from this pipeline, expanding our total power footprint to 1,322 megawatts. In the second quarter, we energized 63 megawatts of this capacity at our Salt Creek site, and we are now finalizing plans for our recently announced 205-megawatt greenfield site in the Texas Panhandle.

The Panhandle site exemplifies our approach to portfolio development. With 205 megawatts of immediately available power capacity, it can support digital infrastructure at scale. It is adjacent to a wind farm and benefits from some of the lowest locational wholesale power prices in North America. During periods of low wind generation, it will be able to draw power directly from the ERCOT grid, ensuring a reliable supply for use cases like Bitcoin mining and AI. Long-term power access and site control further enhance the site’s potential value.

Our power-first thesis, differentiated strategy, and scaled development pipeline were instrumental in securing our recent partnership with Coatue. Their $150 million investment, together with their expertise, resources, and relationships, will enable efficient, high-velocity growth of our power portfolio. The impact of this partnership is already evident in the enhanced quality and volume of our deal flow. We look forward to sharing updates on committed projects as they materialize.

Next, let’s turn to the digital infrastructure layer.

Today, this layer of our platform comprises Bitcoin mining facilities and HPC data centers. In the future, it may include other forms of infrastructure as use cases for our power assets evolve.

In this layer, we aim to extend the competitive advantage we have developed in the speed, capital efficiency, and quality of our infrastructure development. This means we will continue to strengthen our internal development capabilities with a focus on continuous innovation and value engineering.

As demand for AI compute continues to rise, we see a clear opportunity to leverage our capabilities to capture this demand. We are actively exploring projects of multi-hundred-megawatt scales with potential JV partners and customers.

At the same time, Bitcoin mining will be an integral part of our strategy. The low cost and high velocity with which we can build Bitcoin mining infrastructure enables us to recoup our initial CAPEX quickly and generate strong unlevered returns. This allows us to more aggressively underwrite and acquire large-scale power assets, maximizing the volume of load capacity we secure for the long-term. In parallel, it creates the optionality to transition the capacity to use cases like AI, which generally requires longer lead times to commercialize.

I want to emphasize once more that we are not merely a Bitcoin mining or AI business. We are a power business, and we monetize our power on an asset-by-asset basis with a focus on driving the highest returns on any given project. In this way, our strategy mirrors the model of a private equity firm managing a diverse portfolio of independent businesses underpinned by a single thesis and platform.

With that said, we are currently in discussions for a large-scale partnership for our site in the Texas Panhandle, which can power up to 205 megawatts of NVIDIA Blackwell GPUs or up to 16.5 exahash of next-generation ASIC miners. With engineering, procurement and construction efforts underway, we anticipate energizing the site in the first half of next year. Stay tuned for more.

A brief note on our Managed Services business, which extends our expertise in infrastructure design, construction, and operations to third-party partners. Moving forward, we will pause business development in this segment as we focus on scaling our own portfolio. However, it remains a key driver of economies of scale. With this in mind, we have restructured our agreement with Ionic Digital to better align incentives. The revised agreement features a fixed fee of $15 million per year with future upside opportunities for every new site we build or manage.

Finally, the compute layer.

The third layer of our platform comprises application-specific hardware such as ASICs and GPUs. Building a business at the fast-moving compute layer requires significantly larger capital investments in assets with significantly shorter lifespans. While this entails greater risk, it also offers the potential for greater rewards. It is within this layer that we can capture the lucrative economics offered by emerging technologies like Bitcoin mining and AI compute.

As technology evolves, the compute applications that drive the highest returns on our power assets may also evolve. Building for the long-term means we are closely monitoring the development of nascent, energy-intensive technologies. Our objective is to remain agile and responsive as technologies advance so we can capture new market opportunities far into the future.

That said, let's focus on the present. Today, we believe Bitcoin mining and AI compute generate the highest returns on large-scale load capacity and digital infrastructure. Given the scale of our power footprint and development pipeline, we are confident in our ability to establish a strong position in both markets.

Across our platform, we adhere to a disciplined capital deployment strategy, investing only when expected returns surpass a high hurdle rate. This discipline shapes how we scale our compute layer.

In Bitcoin mining, this focus has driven our efforts over the last two quarters to optimize unit economics and maximize returns from our existing ASIC fleet. With the recent leap in machine efficiency—from 18 joules to 12 joules per terahash—and the slowing pace of chip evolution, we believe now is the right time to upgrade our fleet. We are actively negotiating with manufacturers and project financing partners to formalize a plan.

In AI, this commitment shaped the launch of our GPU-as-a-service vertical, which is on track to go live within the coming weeks. Our first cluster of 1,000 NVIDIA H100 GPUs will be hosted at a tier-three data center in Chicago, reducing the capital commitment required for market entry. Our customer, an AI cloud developer, has secured exclusive access to our first cluster under a five-year agreement that provides for fixed infrastructure payments plus revenue sharing.

Executing on our strategic priorities at every layer will require disciplined, strategic capital allocation, making a strong balance sheet crucial. At the close of the quarter, we held $175.5 million in cash and 9,102 Bitcoin valued at $570.5 million on our balance sheet—nearly $750 million in total. Equally central to our approach is the judicious use of debt to maximize returns while minimizing shareholder dilution.

As we continue to build the business, our purpose is clear: to maximize shareholder value. This means we will continue to take a holistic approach to structure the business, drive down our cost of capital, and deliver outsized returns.

I'll end my remarks today on the topic of our most important asset: our people.

Intellectual capital fuels everything we do. We believe that capturing the generational market opportunity we see at the intersection of energy and technology will require exceptional intellect, discernment, and grit. Because of this, building the right team is one of our highest priorities.

Last week, we announced that Sean Glennan will join Hut 8 as Chief Financial Officer on August 21st. During his 13 years with Citigroup, Sean advised on more than $80 billion in M&A and capital markets activity across power, utilities, and renewables. We are thrilled to welcome him to the organization as we scale our platform with a focus on creative structuring and disciplined capital allocation.

In May, we welcomed Victor Semah to the team as Chief Legal Officer. Before joining Hut 8, Victor was Chief Legal Officer of Cyxtera Technologies, a global data center company with 2,300 customers in 60 data centers across more than 30 markets as of its last full-year financial report. His extensive experience at the intersection of digital infrastructure, M&A, and corporate securities has enhanced our ability to grow aggressively while maintaining uncompromising standards for risk management and downside protection.

Both Sean and Victor bring incredible sector depth and functional mastery to our management team. They recognize the urgency of our thesis. And they know what it will take to build a market-leading energy infrastructure platform spanning power, digital infrastructure, and compute. We are excited to harness their talents to strengthen our team, propel our business forward, and creating lasting value for our shareholders.

These beginnings also mark an end. I want to thank Shenif Visram for his significant contributions to Hut 8 as CFO. Shenif has laid the crucial groundwork of operating excellence, financial discipline, and prudent capital management required to build a truly great business. We are deeply grateful to him and wish him the best as he steps down to focus on his family.

With that, I'll turn it over to Shenif one last time to review the financial results in detail.

Shenif Visram, Chief Financial Officer

Thank you, Asher.

Before we review the financial results, I wanted to remind you that US Bitcoin Corp was deemed the accounting acquirer in the merger and, as a result, the historical figures in our income statement for Q2 2023 reflect US Bitcoin's standalone performance. Results for Q2 2024, however, reflect the performance of the combined company. With respect to our balance sheet, Q2 2024 will be compared to year-end 2023, both of which reflect the combined company's performance.

Turning now to our results.

We generated revenue of $35.2 million during the quarter, versus $20.5 million in the prior year period, which represents a $14.7 million increase. The year-over-year increase was driven, in part, by growth in our Managed Services segment.

Digital Assets Mining revenue was $13.9 million for the current period, versus $15.9 million for the prior year period. Revenue decline was primarily driven by a decrease in Bitcoin mined due to the halving and an increase in network difficulty. Also, during the second quarter, we relocated miners from the Kearney and Granbury sites to the Alpha and Salt Creek sites and completed initiatives at Salt Creek to fortify the upstream electrical infrastructure supporting the facility. This led to temporary downtime, which impacted our Digital Assets Mining revenue in the quarter.

Managed Services revenue was $9.0 million in the current period, versus $4.7 million in the prior year period, and includes $6.0 million in management fees, $1.6 million in cost reimbursements and $1.4 million in the form of customer equity, versus $3.1 million from fees and $1.6 million in cost reimbursements in the prior year period. The growth in Managed Services revenue was driven primarily by management fees related to our agreement with Ionic Digital. During the current period, we received only one month of management fees for Kearney and Granbury, compared to the prior period in which three months of management fees were received. We exited both the Kearney and Granbury sites during the quarter.

High Performance Computing – Colocation and Cloud revenue was $3.4 million for the current period. The revenue for this segment relates to the legacy Hut 8 business that was acquired as part of the merger with Hut 8 Mining Corp. and, as a result, the prior year period includes no revenue from this segment. Revenue from the quarter consists mainly of recurring revenue.

Other revenue was $8.9 million for the current period, versus nil in the prior year period. Current period other revenue consists of $3.6 million in equipment sales, $2.4 million in hosting cost reimbursements,

$1.4 million in hosting services revenue, and $1.5 million in power revenues from our natural gas power plants in Ontario.

I'll now review our costs and expenses.

Cost of revenue for Digital Assets Mining for Q2 2024 was $7.5 million, versus $10.5 million in the same prior year period. The decrease of $3.0 million was driven by a decrease in costs after completing the relocation of our fleet from hosted to owned sites, including to our new site Salt Creek, which has a favorable energy profile, the implementation of our proprietary curtailment system, resulting in more efficient management of our energy costs, and credits from participation in ancillary demand response programs Despite the halving and increased network difficulty, Digital Assets Mining gross margins grew to 46% in the current period, compared to 34% in the prior year period.

Cost of revenues for Managed Services for the current period was $3.1 million, versus $1.5 million in the prior year period. Cost of revenues consists primarily of reimbursable payroll and other site operating costs. The $1.6 million increase was driven by a $1.0 million increase in reimbursable payroll costs and a $0.6 million increase in other site operating costs driven by the addition of the five Ionic sites.

Cost of revenues for High Performance Computing – Colocation and Cloud for the current period was $2.5 million, versus nil in the prior year period.

Finally, cost of revenues for Other for the three months ended June 30, 2024, was $7.5 million and consists primarily of $3.2 million in cost of hosting services revenue, of which $3.1 million is electricity costs, $2.0 million in cost of equipment sold, and $2.3 million in cost of power revenues. Cost of revenue for Other was nil in the prior year period.

Depreciation and amortization expense was $11.5 million for the current period, versus $4.1 million for the prior year period. The increase was driven primarily by property and equipment acquired as part of the merger and as part of the Far North acquisition. Also, as discussed last quarter, we adjusted the useful life of some of our mining equipment, which led to an increase in depreciation expense of $1.5 million in Q2 2024.

General and administrative expenses were $17.9 million for the current period, versus $5.2 million for the prior year period. The increase in SG&A was driven by:

- A $6.7 million increase in stock-based compensation;
- A $2.4 million increase in salary and benefits due to the headcount added as part of the merger and additional team members brought on to support the growth of business; A $2.0M increase in general, marketing, office, and other expenses due primarily to the relocation of miners from Kearny and Granbury to Alpha and Salt Creek and also driven by increases related to additional headcount and cost centers acquired as part of the Business Combination;
- A $1.0 million increase in insurance expenses;
- A $1.0 million increase in professional fees for corporate development related items;

- $0.7 million in investor relations and regulatory related expenses due to becoming a publicly listed entity; and
- General and administrative expenses were $17.9 million for the current period, versus $5.2 million for the prior year period.

Losses on digital assets were $71.8 million for the current the period and nil for the prior year period. The decrease was due to a decrease in the market value of our Bitcoin holdings from the last reporting period to the current reporting period in accordance with ASU 2023-08, effective July 1, 2023, which requires us to recognize our digital assets at fair value with changes recognized in net income during the reporting period. The price of Bitcoin on March 31, 2024, was $71,289 compared to the price of Bitcoin on June 30, 2024, of $62,668, such that the decrease in Bitcoin price during the quarter resulted in the loss of $71.8 million.

Other income totaled $14.4 million in the current period, versus an expense of $2.3 million in the prior period. The increase of $16.7 million was due primarily to a $17.2 million unrealized gain on derivatives, driven by a mark-to-market gain on covered call options sold during the second quarter, and a $0.7 million foreign exchange gain, partly offset by a $0.9 million decrease in equity in earnings of an unconsolidated joint venture and a $0.4 million increase in interest expense.

Loss from discontinued operations was $1.7 million in the current period, versus nil in the prior year period. On March 6, 2024, we announced the closure of our Drumheller site in Alberta, Canada in connection with our restructuring and optimization initiatives designed to strengthen financial performance. The $1.7 million loss was related to the closure of Drumheller.

Next, I will discuss net income.

Net loss attributable to the Company for the quarter was $71.9 million, versus $1.7 million in the prior year period. The current period's net loss attributable to the Company includes a $71.8 million loss on digital assets as we previously early adopted the FASB accounting standards for crypto assets.

Turning now to adjusted EBITDA.

Adjusted EBITDA for the quarter was a loss of $57.5 million, versus income of $14.8 million in the prior year period, a decrease of $72.3 million. The decrease was primarily driven by the $71.8 million loss on digital assets. Adjusted EBITDA stayed constant otherwise, as the impact of the halving and the planned downtime at the Salt Creek site to fortify the upstream electrical infrastructure supporting the facility was offset by the impact of optimization efforts and additional profitable revenue from Managed Services.

Finally, I'll discuss our balance sheet.

We closed the quarter with $175.5 million in cash. In Q2 2024, we entered into a Convertible Note Purchase Agreement with a fund managed by Coatue Management L.L.C, providing for the purchase and sale of a convertible note in the principal amount of $150 million.

Our Bitcoin holdings are marked at fair value and totaled $570.5 million as at June 30, 2024, based on 9,102 Bitcoin held in reserve. Of this total, 5,022 Bitcoin, valued at $314.8 million, remained unencumbered at the end of the quarter.

Our total debt excluding leases was $328.8 million as at June 30, 2024. During the quarter, we entered into the Coatue agreement for a principal amount of $150 million. Our Coinbase loan agreement was also amended during the quarter, extending the maturity date by one year. Of our $328.8 million of total debt outstanding, $114.3 million is debt that is to be repaid based on a sweep of cash generated from the assets acquired with the debt, with no minimum monthly repayment. We believe this level of debt is manageable as we execute on our growth plans.

During the second quarter, we continued to focus on improving our operational efficiency and driving down our cost base and are beginning to see these efforts materialize in our financials. Subsequent to the quarter close, we announced the first conversion from our pipeline of development opportunities under exclusivity with the announcement of a 205-megawatt site in the Texas Panhandle. With respect to AI and high-performance computing, we expect to begin recognizing revenue in our new GPU-as-a-service vertical in the third quarter. As we continue to convert our development pipeline and engage in discussions regarding a fleet upgrade, we will prioritize disciplined growth and capital allocation, driving toward our north star of maximizing shareholder value.

I wanted to conclude my comments today on a personal note. As Asher shared, I have made the difficult decision to step down from my role as CFO for personal reasons. This decision was based solely on my need to dedicate more time to my family. My tenure at Hut 8 has been both rewarding and enjoyable, and I continue to have utmost confidence in the team's ability to execute on its ambitious vision for the future of the company. I want to thank Asher and our Board for their support as I made this decision. At the same time, I would like to welcome Sean to Hut 8. I believe the team and finance organization is in good hands with him as CFO and look forward to following the Company's continued success.

I will now turn it over to Sean, who will make some short remarks before we continue with Q&A.

Sean Glennan, Chief Financial Officer

Thanks a lot, Shenif.

I'm thrilled to hit the ground running with the Hut 8 team next week and look forward to meeting many of you as I embark on my new role. After nearly two decades in financial services, including 13 years in the Power, Utilities, and Renewables group at Citi, transitioning to the corporate world was not a decision I made lightly. However, the opportunity to join what I believe is the best-positioned company at the center of the mega-trends shaping the power and digital infrastructure sectors was one I couldn't pass up.

As I got to know the Hut 8 organization, I was incredibly impressed by the team's talent, drive, and passion for what they are building. Under Asher's leadership, it is evident that every member of the team believes they are building a generational business. Having worked with hundreds of companies and management teams in my career, I can say with confidence that finding this type of environment is rare, but it jumps off the page once you see it.

Building a generational business is no small feat in any industry, but building one in an industry that necessitates ingenuity, domain expertise, disciplined capital allocation, and scale is even more of a challenge. At Hut 8, I am confident that I am joining a team more than capable of rising to the occasion.

From a strategic perspective, Hut 8 is defining a new market segment by harnessing large-scale energy infrastructure to empower the acceleration of technological progress, particularly on the digital infrastructure front. My experience advising on transactions involving some of the largest players in power, utilities, and renewables brought me face-to-face with the tremendous market opportunity at the intersection of power and high-performance computing.

I was fortunate to have a seat at the table with executives shaping this landscape. As these discussions unfolded, it became increasingly evident that incumbent data center operators and developers do not have sufficient infrastructure nor resources to meet the power capacity required to facilitate the advancement of AI. More importantly, they are not well-equipped to provide what hyperscalers demand: timely access to multi-hundred-megawatts worth of long-term, reliable, low-cost power. I believe that Hut 8, however, is uniquely positioned to solve this critical challenge.

Specifically, the Hut 8 team has positioned itself for this opportunity by executing on a thesis that prioritizes the acquisition of new load capacity.

What further piqued my interest was learning that Asher and Mike had scaled the business pre-merger to 730 megawatts of power capacity with a little over $100 million in equity capital. It pointed to an extremely disciplined approach to allocating capital and generating returns on investment, a mentality I plan on upholding in my new role as CFO.

As competition in the power markets intensifies, I am particularly excited to work closely with the corporate development team as it continues to build and convert its pipeline of assets. Drawing on deep experience at companies like NextEra, Invenergy, JPMorgan, and GE Energy, among others, this team has the expertise and track record required to sit across the table from counterparties that hold the keys to new load capacity, many of whom are the likes of my former clients, and speak their language. They understand the nuances of the commercial challenges faced by generation counterparties and know how to structure partnerships that solve these challenges. This is the type of dealmaking environment I have prided myself on fostering throughout my career.

More broadly, I believe the focus on disciplined growth, operating excellence, and data-driven decision making that underpins the organization forms a strong foundation on which I plan to build. I am fortunate to enter the organization at a time when restructuring and optimization efforts are well underway but will nonetheless bring a fresh set of eyes to identify areas for further improvement and efficiencies. And, as the business continues to scale and diversify, I am confident that my skillset, rolodex, and the strategic, power-focused lens through which I plan to approach my role will drive significant value to our shareholders.

I want to thank Asher, Shenif, and the entire team for the opportunity to play an instrumental role in Hut 8's next chapter. I believe this is merely the beginning of a period of exponential growth for the company and look forward to providing an update on our progress next quarter.

Operator

To ask a question, please press *11 on your telephone and wait for your name to be announced. To withdraw your question, please press *11 again. Please stand by while we compile the Q&A roster. Our first question comes from John Todaro with Needham. Your line is open.

John Todaro, Needham

Great. Thanks for taking my question, guys, and congrats on all the improvements going on here.

First, on the HPC business, I guess I have two questions related to HPC, but one on the 1.1 gigawatts in the pipeline, I guess just where do we stand on grid interconnect approval for all of it?

My second question, it seems to me that that 205-megawatt site could be all for HPC, correct me if not. Then just what are we thinking on timeline for groundbreaking on that site as well as what's in the pipeline through the end of calendar '24?

Asher Genoot, Chief Executive Officer

Thanks, John. Good to hear from you.

All of the assets that we have in our pipeline and assets that we have today, even if they're behind the meter, are grid-connected. I know there was some confusion when we announced the Texas Panhandle site that this was a behind-the-meter wind farm, and it didn't have grid connectivity. That site is ERCOT-approved, has a substation available, and can pull power as long as our data center is built, and we have the connection into the substation.

That site today, we're having conversations with customers about an HPC AI build, but we're also having discussions with them about other sites in our pipeline, which may be more interesting from them from a fiber connectivity standpoint that's a little less rural. We're having active discussions in the multi-hundred-megawatt size in regards to AI expansion and looking at both our current fleet and also our expansion pipeline.

John Todaro, Needham

Got it. Ok, thank you for that, Asher, I appreciate it.

Operator

Thank you. Our next question comes from George Sutton with Craig-Hallum Capital. Your line is now open.

Logan Lillehaug, Craig-Hallum Capital

Hey. Good morning, guys.

Thanks for taking my questions.

This is Logan on for George. I wonder if we could just start with, relative to that GPU as a service vertical, has anything changed with the agreement there? I know last quarter you were talking about a fixed income and then maybe a revenue share.

And on top of that, is that something you guys will look to expand here in the future or are you comfortable with where you're at right now?

Asher Genoot, Chief Executive Officer

We have the same structure that we announced with them. So, it's on a five-year contract with the customer. It's a fixed base fee with a rev share model in terms of sharing on the economics in their real-time, on-demand marketplace. We are currently looking at financing on a go-forward basis. As I've focused our business on growth, we're looking at what is the best way to finance this, not just parent level balance sheet, but also project-level financing. So, we'll share growth plans aligning and in parallel with financing updates as well.

Logan Lillehaug, Craig-Hallum Capital

Got it. And then I know in the press release, and I think in your remarks too, you talked about upgrading the fleet. Any sense of how much of the fleet you'll look to upgrade? Then maybe just do you have any ideas on the trajectory of the mining margin?

I know you guys have made some good progress here on the energy costs, but maybe just some thoughts going forward on that.

Asher Genoot, Chief Executive Officer

We're really excited by the progress we've made since I took over in February. If you look, our cost of power this last quarter was 3.2 cents per kilowatt hour. I think that's one of the most competitive in the market today. So, our power cost to mine a Bitcoin was $26,232, and that was based on a fleet efficiency of 31.7. The newest generation machines from Bitmain are 12 joules per terahash for MicroBT around 6 to 17 joules per terahash. That's over 50% reduction in efficiency from where we are today. With all else remaining equal, you'll see that same reduction in the cost to mine a Bitcoin.

So, the fundamentals of what is our power cost, how is our infrastructure running? I think we continue to show the market and continue to optimize as a company, and now replacing machines with newer generation machines. I think the most recent announcement on the 12 joules per terahash is a step function from where we were. The most recent machine was around 17 to 18 joules per terahash, so 12 joules per terahash was a huge leap forward. We're having active discussions today around a fleet upgrade as our machines start going towards their end of life and as we look at selling those and refreshing the fleet that is existing on our infrastructure and then net new growth, for new machines, for new sites that we have in our pipeline.

We've shared with the market that our intent is to continue to grow our power infrastructure, and that means being a leader both in the growing and emerging AI sector in multi-hundred-megawatt builds but also a leader within the Bitcoin mining sector, which we've grown on our power footprint, but we haven't grown on our overall exahash and we'll continue to show growth there in the near future.

Logan Lillehaug, Craig-Hallum Capital

Got it. Appreciate you taking my questions.

Operator

Thank you. As a reminder, to ask a question, please press *11 on your telephone and wait for your name to be announced. Again, that is *11 to ask a question. Our next question comes from Mike Colonnese with H.C. Wainwright. Your line is open.

Mike Colonnese, H.C. Wainwright

Hi. Good morning, guys. Asher and team, congrats on all the progress. Really good to see here. Just a couple for me. You mentioned the release and you just spoke on it about the fleet upgrades. If you just provide a little bit more specifics than what you just mentioned, as it relates to a timing perspective, Asher. Roughly, how long do you think it will take for a full upgrade of your sites after signing a purchase order? If you can just remind us of the total developed megawatts in the portfolio that is wholly-owned by Hut today?

Asher Genoot, Chief Executive Officer

Thanks, Mike. We're in active discussions with the manufacturers today and different financing mechanisms in order to power the fleet upgrade that we think is the most economic way. If you look at hash price over the last three-month period, you have hashprice that ranges in the $60 per petahash per day down to as low as $36. Right entry point, right pricing, and right financing is critical to us as we look at this fleet upgrade with this new generation machine.

If we look at the overall amount of megawatts that we have, we have a pretty robust pipeline today. In regards to our owned megawatts, we have about a gigawatt, including the joint ventures. As you know, with King Mountain, it's a 50/50 joint venture ownership so we have a strong pipeline there. Then we have the natural gas generation facility. Today, we have the four operating sites, including the expansion site, plus the King Mountain joint venture at our active Bitcoin mining facilities in addition to our pipeline.

Mike Colonnese, H.C. Wainwright

Got it. Got it. Switching over to HPC business, if you could just share what your utilization rate of your deployed GPUs is right now? I think you mentioned previously that you're expecting a $20 million annual run rate revenue from the business. Does that assume 100% utilization?

Asher Genoot, Chief Executive Officer

That does not assume 100% utilization. That is based on the on-demand rates we're seeing from our partner and the average utilization that they've had across their fleets. We'll share more of those numbers as we go into the coming quarters when they are online and operational and the financials start hitting our reporting metrics.

Mike Colonnese, H.C. Wainwright

Got it. If I could just squeeze one more in, Asher, on the HPC side. So, you talk about the GPU-as-a-service model which you currently have operating. As we look at future expansion opportunities, I know you talked about evaluating all different types of opportunities whether it be co-location or somewhat similar to what you're doing now with owning the GPUs. What does that look like in terms of your go-to-market strategy? Are you leaning to one side versus another based on some of the market dynamics today?

Asher Genoot, Chief Executive Officer

We see it as two separate opportunities. The GPU-as-a-service model, we have a full team that's running that business unit today. They are both looking at expansions with customers, with the supply chain with Nvidia, and also from a financing perspective on a project level, equity, and debt perspective. That's well underway, the team is building out, and they're growing.

At the parent level, we're spending a lot of time working on this demand pool that we see that a lot of the industry and the market is talking about which is these large-scale customers with multi-hundred-megawatt demand for contiguous clusters. We think a lot of our sites fit within those parameters of what they're looking for. From a power availability perspective, it hits the fiber requirements that they have, and we have the ability to give them the land requirements that they need as well.

We're in active discussion there and that looks more like a co-location deal, where we would have a customer and a tenant leasing and we would be providing them a data center built to suit for that customer on a long-term agreement.

Mike Colonnese, H.C. Wainwright

Got it. I appreciate all the color and thanks for taking my questions.

Asher Genoot, Chief Executive Officer

Thanks, Mike.

Operator

Thank you. I'm showing no further questions at this time. This concludes today's conference call. Thank you for participating. You may now disconnect.