CALPINE ENERGY SOLUTIONS

CUSTOMIZED ENERGY SOLUTIONS

CONTRACT STRUCTURES THAT GROW WITH YOUR LOAD

UNLOCKING WORKING CAPITAL FOR A GROWING BITCOIN MINER

As digital infrastructure continues to expand, large and fast-growing loads face a unique challenge: their energy contracts must evolve as quickly as their operations do. For companies investing heavily in growth, a structure built for yesterday's load may not fit tomorrow's. Calpine Energy Solutions understands these challenges. For decades, the company has worked alongside clients to adapt their energy structures to their changing needs.

Early in their planning, a Bitcoin mining client approached a critical operational milestone just two months before the volatile summer season. With operations ramping up, the client needed to optimize their contract structure to keep pace.

THE CHALLENGE: THE MECHANICS OF SCALING A MEGA- FACILITY

Summer can be wildly unpredictable in ERCOT, the grid operator serving most of Texas. Severe heatwaves drive massive surges in cooling demand that push power grids to their absolute limits. While real-time market (RTM) electricity prices in the summer typically average $45 to $80+ per MWh, extreme grid strain can cause prices to dramatically spike to a regulatory cap of $5,000/MWh. In turn, forward market energy prices can reflect significant risk premiums.

The challenge was finding a way to update this structure to satisfy necessary credit requirements while maintaining the financial flexibility the client needed to continue growing. The race was on to design an agile, data-backed structure that reduced the capital tied up in prepayment or deposit requirements.

DEAL AT A GLANCE

Industry: Bitcoin Mining

COD: 2025

Load Size: >100 MW

Structure: Energy

THE STRATEGY: INNOVATING WITH A TRUSTED PARTNER

Trust and proven track record go a long way in partnerships. With over two decades of experience in the energy industry, Calpine Energy Solutions was uniquely equipped to address this bottleneck. Though the client evaluated other options, they chose to tackle this milestone with Calpine Energy Solutions because of the team's speed in developing a solution and record of doing whatever it takes to adapt to the Bitcoin miner's evolving requirements.

Rather than settle for an off-the-shelf energy contract, both teams aligned around a single objective: minimize cash tied up for power so the client could deploy more capital toward expansion. The key to the solution came directly from the client's specialized digital infrastructure. Their Bitcoin mining equipment's built-in ability to curtail when grid prices spike made them the ultimate flexible load partner.

THE SOLUTION: REWRITING THE RULES WITH TELEMETRY

Using the client's historical curtailment behavior under different real-time price conditions, Calpine Energy Solutions restructured their credit provisions to account for reduced usage at higher prices. The team then collaborated to implement real-time monitoring of the client's equipment to actively track that behavior. Combined with more frequent invoicing, this live data allowed the company to reduce required prepayments and completely eliminate security deposit requirements ahead of a critical growth milestone.

FUTURE GROWTH

As a result, the client was highly satisfied with Calpine Energy Solution's commercial mindset and ability to conceptualize and implement a complex new structure with a short timeframe. This further cemented the relationship and resulted in a long-term agreement and the award of additional facilities to Calpine Energy Solutions.

By successfully optimizing their agreement, the client avoided a major disruption. Instead, they seamlessly redirected vital funds into expanding their facility, with plans to eventually retool the infrastructure for advanced High-Performance Computing (HPC) processes.