

Louisiana Blockchain and Cryptocurrency Mining

Data Center

The Challenge

Cryptocurrency mining is the process by which new crypto “coins” are entered into circulation. Their production requires highly sophisticated computers, often in a data center, to solve complex computational math problems. By their very nature, data centers require tremendous amounts of electricity. This need has raised new challenges at a time when the utility grid is strained due to extreme weather, aging infrastructure, and inadequate transmission. It also can be extremely costly to provide around-the-clock power to these energy-intensive facilities.

Bitcoin miners have started locating their operations on closed-in oil wells so they can run on the associated gas. This was the case with a remote data center in Louisiana that handles blockchain and cryptocurrency mining. The customer wanted a lower cost of energy, but they also wanted to be green.

The Solution

Working with Capstone’s southern U.S. distributor, Lone Star Power Solutions, the data center signed a long-term rental agreement for a C1000S microturbine.

Power Profile

Customer

Blockchain and Cryptocurrency Mining Data Center

Location

Louisiana, U.S.

Commissioned

First system – October, 2021
Second system – April 2022

Fuel

Associated Natural Gas, High Pressure

Technologies

- 2 C1000S Microturbines
- 10-year Factory Protection Plan (FPP)

Capstone Green Energy Distributor

Lone Star Power Systems



The operational success of the first unit installed last October and its ability to operate on a wide variety of fuel sources was an integral part of our customer’s decision to add a second unit.”

— Doug Demaret, Principal
Lone Star Power Solutions

A photograph of a data center interior, showing rows of server racks and structural beams. The image is overlaid with a semi-transparent green filter. In the background, some people can be seen near a set of stairs.

**Smarter Energy
for a Cleaner Future**



This customer, which is located on an oil and gas well, handles large volume blockchain and cryptocurrency mining, was looking for an innovative way to take advantage of their existing on-site associated gas, a byproduct that would otherwise go to waste.

The microturbine system offered an innovative way for the data center to take advantage of their existing on-site associated natural gas, a byproduct that would otherwise go to waste and be released into the atmosphere.

Further, the added reliability and low maintenance requirements of microturbine-based systems made them an ideal solution for this remote location, which was hard to reach and often deals with challenging climate conditions.

The Results

Because Capstone microturbines are designed to offer fuel flexibility, the system uses the waste gas as free fuel, a benefit that not only offers operational savings, it reduces emissions.

In fact, the cost savings, reliability, and environmental benefits were so significant that the customer ordered a second C1000S unit just one year later, it is scheduled to be commissioned in April 2022.

“The operational success of the first unit installed last October and its ability to operate on a wide variety of fuel sources was an integral part of our customer’s decision to add a second unit,” said Doug Demaret, President of Lone Star Power Solutions. “Capstone’s innovative products allow Lone Star Power Solutions to provide its customers with 100% uptime, extremely low emissions, and infrequent visits under the harshest conditions, allowing our customers to focus on their core business.”

Capstone C1000S Microturbine



A C1000S Microturbine provides 1MW of reliable electrical power in one small, ultra-low emission, and highly efficient package.