RESEARCH BRIEF · GAS UTILIZATION · OCTOBER 2026

# Wellsite Bitcoin Mining Makes Money Every Month. It Can Still Lose $589,000.

A transparent five-year model of a 1 MW pad installation clears $335,251 of operating cash in its first year and still returns a negative net present value. For operators in Kansas, Oklahoma and Texas, the gap between those two numbers decides whether stranded gas becomes an asset or an expensive lesson.

*Gas-to-Bitcoin at Mature Oil and Gas Pads: Profitability, Diversification, and the Conditions for Lower Risk*

| $335K | –$589K | $54.73 | 240 |
|---|---|---|---|
| YEAR-ONE OPERATING CONTRIBUTION | FIVE-YEAR NPV, CENTRAL CASE | HASHPRICE NEEDED TO BREAK EVEN ON CAPITAL | MCF PER DAY TO RUN ONE MEGAWATT |


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**Michael Schuler** Founder, Heartland Tech AI
**michael@heartlandtech.ai** · **703.328.1311**



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## THE BOTTOM LINE

Burning stranded gas for Bitcoin mining can raise the value of selected mature pads, but a project that is cash-positive every month can still lose money as an investment. In a transparent model of a 1 MW installation, mining clears $335,251 of operating contribution in year one and returns a five-year net present value of negative $589,421 once gas decline, falling mining revenue, equipment replacement and a 10% cost of capital are counted. Only one of nine scenarios — a $60 starting hashprice on gas with no other value — creates value.

Three rules follow for operators in Kansas, Oklahoma and Texas. Underwrite to investment break-even, not operating break-even. Charge the project for what the gas could otherwise earn. And treat any third-party payment as only as good as the party making it.

## 1 OPERATING PROFIT IS NOT INVESTMENT VALUE

Mining revenue is set by hashprice — revenue per unit of computing capacity per day — not by Bitcoin's price alone. Hashprice also moves with competing network capacity, reward halvings and fees, and converting it to revenue per megawatt-hour depends on fleet efficiency.[1]

Peer-reviewed work separates the decision to buy mining equipment from the decision to keep running it, and identifies rapid growth in network difficulty as the main reason mining disappoints.[2]

In the model the gap is stark: operating break-even is $17.36 per PH/s per day with gas valued at zero, while recovering the $1.25 million investment at 10% requires a $54.73 starting hashprice. At the central $40 assumption, the plant clears every operating threshold and misses every investment threshold.

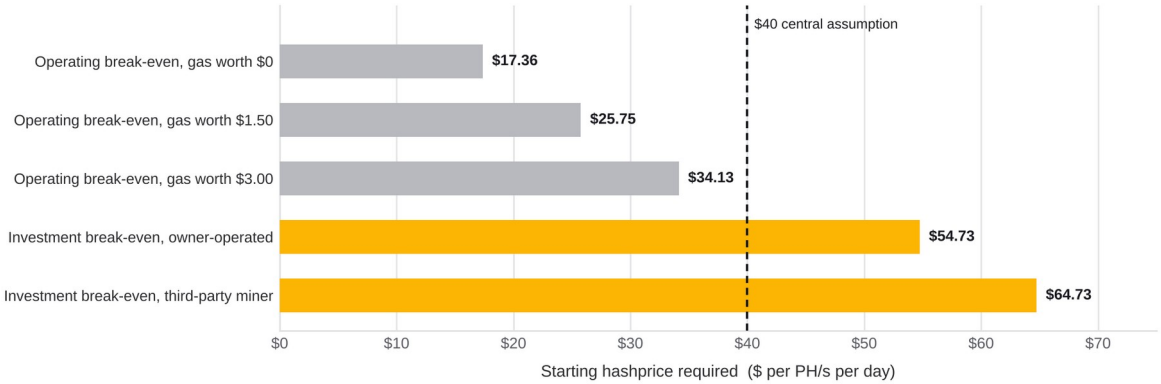


**FIGURE 1** Starting hashprice required, $ per PH/s per day. The plant clears every operating break-even at $40 and misses both investment break-evens.

[1] Hashrate Index (Luxor Technology), "Energy-Adjusted Hashprice: Bitcoin Mining Revenue in Energy Terms", B. Harper and K. Farahani, 23 December 2024.
[2] Jabłczyńska, M., et al., "Energy and cost efficiency of Bitcoin mining endeavor", PLOS ONE 18(3): e0 283 687, 2023.

## 2 STRANDED GAS IS RARELY FREE

| Starting hashprice | NPV, gas at $0 | NPV, gas at $1.50 | NPV, gas at $3.00 |
|---|---|---|---|
| $25 / PH/s / day | −$1,189,558 | −$1,582,784 | −$1,976,010 |
| $40 / PH/s / day | −$589,421 | −$982,647 | −$1,375,873 |
| $60 / PH/s / day | $210,762 | −$182,464 | −$575,690 |

Owner-operated, 1 MW, five-year NPV at 10%. Illustrative assumptions, not quotes.

If the gas could otherwise be sold for $1.50 per MMBtu, diverting it costs $124,173 a year and cuts year-one operating contribution to $211,078; at $3.00 it falls to $86,905. Engines also lose efficiency at part load — roughly 8 to 10 points at half load — and carry labor, consumables and overhaul costs that a declining gas stream does not shrink.[3]

## 3 CONTRACTS MOVE RISK; THEY DON'T REMOVE IT

Producers can own the equipment, take a profit share, or let a provider place equipment on site for the gas, and major producers have supplied flare-bound gas to third-party miners.[4]

Every structure divides the same project result. In a fixed gas-and-site agreement, the producer shows a positive $362,180 NPV while the miner paying it loses $989,509 and needs a $64.73 starting hashprice just to break even. Counting those payments as secure means relying on a counterparty modeled to lose money. Lease terms matter too: a 2023 Colorado complaint alleged that mining did not hold leases by production and that royalties paid on gas sold to the miner were minimal. It remains an allegation, but it is reason enough for lease-specific counsel.[5]

## 4 "DIVERSIFIED" IS NOT "LESS RISKY"

Bitcoin's links to other markets, including crude oil, strengthen during crises, so a low average correlation is not a dependable hedge.[6]

Adding an independent mining stream to a pad raises the total dollar swing unless the two move strongly against each other. In a simple illustration, monthly standard deviation rises from $15,000 to $17,000 even as volatility relative to cash flow falls from 75% to 57%. Mining can raise expected cash and cut dependence on oil; whether it cuts the chance of a cash shortfall must be measured, not assumed. Shut-ins that remove associated gas also stop the miners, linking the two businesses physically.

[3] U.S. Environmental Protection Agency, *Catalog of CHP Technologies, Section 2. Technology Characterization – Reciprocating Internal Combustion Engines*, Combined Heat and Power Partnership, March 2015.
[4] Bitcoin Magazine, "Oil Field Alchemy: How Bitcoin Can Turn Waste, Emissions into Proof-of-Work", C. Harper, 8 May 2019; World Oil, "ConocoPhillips supplying a Bitcoin miner with gas from Bakken", Bloomberg wire, 16 February 2022.
[5] Reed Smith LLP, "Gas-to-crypto projects: Colorado case may shed light on lease terms", M. M. Balaster and N. S. Caplan, client alert, 10 August 2023.
[6] Attarzadeh, A., and M. Balcilar, "On the dynamic return and volatility connectedness of cryptocurrency, crude oil, clean energy, and stock markets: a time-varying analysis", Environmental Science and Pollution Research 29: 65 185–65 196, 2022.

Heartland Tech AI is building the decision layer for this choice: an eligibility screen on measured gas, a side-by-side comparison of every gas use on consistent economics, two-sided contract underwriting, and gas-to-cash reconciliation from meter to bank. The full paper, model and scenario data are published together so every number here can be reproduced.

Research and analysis only; not personalized financial, legal or investment advice.

## ABOUT THE AUTHOR

**MICHAEL SCHULER** Founder, Heartland Tech AI

Michael Schuler is the founder of Heartland Tech AI, which builds custom AI systems, operational dashboards, and connected hardware for mid-size industrial companies across the Midwest, Southwest, and Texas. His work focuses on industrial optimization and data analytics in mature energy basins — instrumenting existing assets and putting the resulting data in front of the people who make capital decisions. He can be reached at michael@heartlandtech.ai or 703.328.1311.

*This brief was prepared by Michael Schuler of Heartland Tech AI. The analysis and scenario construction are the author's own.*

*All sources were accessed in October 2026. Of the 7 sources cited, 0 are primary documents of state government and 1 of the United States government. Titles shown in square brackets are editorial descriptions rather than the publisher's own title.*

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### PEER-REVIEWED RESEARCH, INDUSTRY AND TRADE

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