

July 27th, 2025

Dear Editors of Ledger,

I am submitting "Energy Anchoring in Cryptocurrency Markets: Evidence from Natural Experiments" for consideration as a Research Article.

This manuscript introduces the Cumulative Energy Investment Ratio (CEIR), demonstrating that Bitcoin's value is anchored by cumulative mining energy costs. Using two natural experiments—China's 2021 mining ban and Ethereum's 2022 proof-of-stake transition—we show this anchoring effect weakens by 52.5% when mining disperses geographically.

This work bridges cryptocurrency economics with empirical finance, providing novel evidence of how proof-of-work cryptocurrencies derive value from physical resource consumption, directly aligning with Ledger's interdisciplinary scope.

Suggested Reviewers:

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Thank you for considering this submission. I look forward to your editorial decision.

Sincerely,

Christopher Ongko

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