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POWERING DOWN PROGRESS

**Why A Bitcoin Mining
Tax Hurts America**



U.S. SENATOR CYNTHIA LUMMIS

INTRODUCTION

For years, China was the undisputed leader in Bitcoin mining; however, the Chinese Communist Party (CCP) unexpectedly banned Bitcoin and Bitcoin mining in 2021. This action by the CCP opened the door for a new world leader and America's robust energy markets and respect for the rule of law quickly attracted significant investment and talent. In just three short years, America is now home to dozens of large Bitcoin mining companies and leads the global Bitcoin mining landscape.

In its 2025 budget proposal, the Biden administration requests a new 30% "excise" tax on electricity for Bitcoin miners. This move endangers America's hard-won leadership position and the future of Bitcoin mining in America. To make matters worse, Treasury's justifications for the tax appear to be the first step of a broader agenda aimed at reducing energy usage across various sectors, based on regressive ideas about energy consumption and technological progress.

This paper seeks to dispel the misconceptions that underpin Treasury's proposal by providing a concise, fact-based overview of Bitcoin and the mining industry. It highlights the potential economic and energy benefits that Bitcoin mining offers America including job creation, support for the nation's energy infrastructure and driving innovation. The paper further demonstrates how Treasury's proposal is counterproductive to its own goals and would jeopardize a lawful and growing sector of the American economy.



1. WHAT IS BITCOIN MINING?



To grasp the potential impact of Bitcoin mining on the United States, it is essential to first understand the basics of Bitcoin and the role of mining in the Bitcoin network.

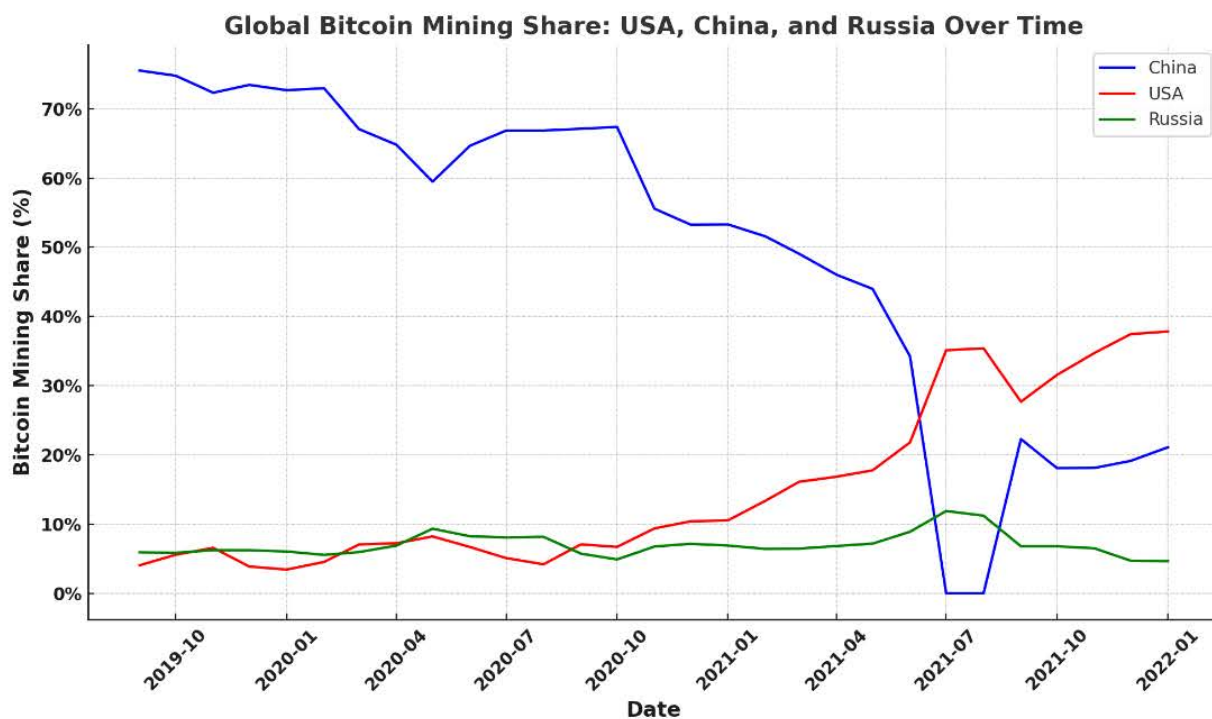
Bitcoin is a decentralized digital asset that operates on a peer-to-peer network, without intermediaries or central authorities. At its core, Bitcoin is digital property – a scarce and secure store of value that allows individuals to protect their savings and energy through mathematics. By providing a tamper-evident and immutable record of transactions, Bitcoin enables anyone to preserve their wealth without relying on traditional financial institutions or governments.

The foundation of Bitcoin's security and scarcity lies in its "blockchain," a distributed database that serves as a transparent and unalterable record of all transactions. This decentralized, transparent structure ensures the integrity of the system and protects it against single points of failure or control.

The Bitcoin network is protected through a process called "mining." This is a process where operators use powerful computers to protect the network from attacks. As a reward for their services, miners receive newly minted Bitcoins, which the Bitcoin code releases into circulation at a predetermined rate, roughly every 10 minutes. This mining process is also the means by which new coins are distributed and serves to prevent inflation in the system.

Through their efforts, miners ensure that Bitcoin remains resistant to counterfeiting, virtual attacks, and other forms of manipulation, thus protecting the savings and wealth of its users.

2. BITCOIN MINING FINDS ITS WAY BACK TO AMERICA



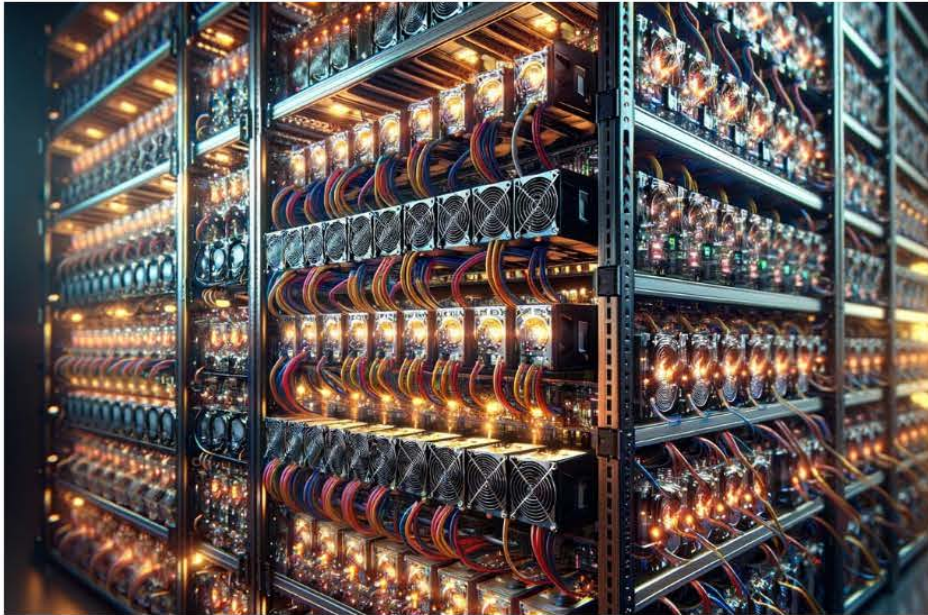
Bitcoin mining has undergone a remarkable evolution from the network's inception in 2009. In the early days, mining was performed on regular home computers by a small group of dedicated developers and enthusiasts, many of whom were based in the United States. However, as interest in Bitcoin grew, so did the computing power devoted to mining.

By the late 2010s, China emerged as a major hub for large scale Bitcoin mining due to its abundant and inexpensive coal and hydroelectric power resources. As the industry grew, however, the CCP recognized that Bitcoin's principles of freedom and decentralization posed a direct threat to its vision of centralized control and surveillance of its citizens. The CCP sought to promote its own central bank digital currency (CBDC), the Digital Yuan, as a tool to monitor and control the financial activities of its population, yet Bitcoin offered an alternative to this dystopian future. As a result, the CCP banned Bitcoin and Bitcoin mining in 2021, suddenly forcing Chinese Bitcoin miners to liquidate their equipment or leave the country.

This dramatic shift in the mining landscape and mass liquidations of Chinese mining equipment presented an incredible opportunity for mining companies in the United States. With its cheap and reliable energy sources, strong and predictable property rights and respect for the rule of law, the U.S. was an optimal environment for new mining operations.

Following the Chinese ban, the U.S. Bitcoin mining industry has grown dramatically. The U.S. is now estimated to account for more than 35% of the global Bitcoin "hashrate," a measure of the computing power dedicated to mining. This growth has been driven by increasing institutional investment, with publicly traded American companies like Marathon Digital Holdings and Riot Blockchain investing heavily in new mining operations. Today, the U.S. Bitcoin mining industry is valued at tens of billions of dollars and supports thousands of jobs across the country.

3. THE BIDEN ADMINISTRATION'S PROPOSED EXCISE TAX ON BITCOIN MINING



Despite America's recent success, Bitcoin mining is in jeopardy. The administration is proposing a 30% excise tax on energy used by Bitcoin miners with the explicit intent of "reduc[ing] mining activity" based on unfounded concerns about pollution and risks to the energy grid.

To put these concerns into perspective, it is important to recognize that Bitcoin mining machines are simply specialized computers similar to laptops or cell phones. Just like electric vehicles, bitcoin mining facilities are fully electric and do not emit any carbon dioxide. Additionally, the electricity used by mining computers is remarkably clean. The Bitcoin Energy and Emissions Sustainability Tracker estimates that Bitcoin mining could be as high as 52.6% emission free and continues to get cleaner over time.

In terms of the amount of energy used, Bitcoin mining uses approximately as much energy as standard household appliances. For example, a recent KPMG report found that the total energy used by bitcoin miners is roughly the same as the total energy used by tumble dryers.

But, even if we assume the administration's goals are genuine, this tax should still be rejected. This tax serves as a clear example of how poorly designed tax policies can have perverse effects, undermining the very objectives they claim to support.

A. THE PROPOSAL WOULD WEAKEN AMERICA'S ENERGY INFRASTRUCTURE

The administration's proposal claims that Bitcoin mining creates "risks" with local utilities on their grid operations. However, it provides no support for these claims. To the contrary, empirical evidence shows Bitcoin mining strengthens America's energy grids.

Bitcoin miners are unique large, flexible loads that act as modular demand-response systems for energy grids. By partnering with utilities, miners can quickly adjust their energy consumption in response to fluctuations in supply and demand, helping to balance the grid and prevent blackouts or other disruptions. This flexibility is particularly valuable in regions with high penetration of renewable energy sources, which can be intermittent and challenging to integrate into traditional grid systems.

In Texas, mining companies participate in programs with the Electric Reliability Council of Texas (ERCOT) to provide demand response services and help stabilize the grid during periods of peak demand. During Winter Storm Elliot in December 2022, Bitcoin miners sold 1500MW of energy back to the grid when prices were above \$0.07/KWh. This capability was again used with Winter Storm Heather in February 2024. Data from the Bitcoin Mining Council, published in August 2023, reported that available interruptible load from Bitcoin miners is equivalent to approximately 25% of all installed utility battery storage in the United States and Canada and continues to grow.

Preliminary research also indicates that Bitcoin mining can help restore balance to an energy grid in the event of an unplanned catastrophic failure. Academic research from 2023 demonstrated that Bitcoin mining is potentially 10 times better than existing technology for returning a power grid to the proper frequency in a disaster scenario.

In just its first few years in America, Bitcoin mining is already showing promising signs as an important technology for upgrading our energy infrastructure. At this stage, we should continue to study the effects of rapid deployment of this technology and allow it to mature. Threatening the industry with aggressive taxes would only leave America's infrastructure stuck in the past.



B. THE PROPOSAL WOULD HURT THE ENVIRONMENT



As the industry matures, Bitcoin miners increasingly seek sustainable and efficient energy sources to power their operations, constantly searching for cheap and underutilized energy to remain competitive. In this way, Bitcoin mining often acts as a "recycling bin" for energy that might otherwise go to waste. Some miners have even sought out energy that are entirely disconnected from power grids. In states like Wyoming, companies are capturing methane that would have been vented into the atmosphere from natural gas production and harnessing that methane to mine Bitcoin instead. There are similar initiatives for mining on exhaust methane from landfills. When released into the atmosphere, methane traps heat at a rate 28 times higher than carbon dioxide over a 100-year period. By harnessing these waste energy sources, Bitcoin miners are not only lowering emissions but also creating an important new revenue stream for energy producers, boosting America's ability to become energy independent.

However, the proposed tax, which inexplicably extends to off-grid mining operations, threatens to undermine this promising solution. By imposing a 30% tax on hypothetical electricity costs associated with methane-powered mining, the proposal effectively disincentivizes the use of this stranded energy source and makes it less economically viable for mining operations to invest in methane capture technologies—leaving methane that was previously being captured to return to being vented into the atmosphere.

C. THE PROPOSAL WOULD DECREASE TAX REVENUES



Bitcoin miners are lawful American businesses that pay standard taxes and bring significant economic benefits to underserved areas. These opportunities can be particularly valuable in rural or economically depressed regions where traditional industries may be in decline and Bitcoin mining can contribute to community development and improve overall economic well-being.

The proposed tax could drive mining operations to relocate overseas to jurisdictions with more favorable tax policies, lowering overall tax revenues. This is a realistic concern, as demonstrated by the aftermath of the China ban, Bitcoin miners vote with their feet. After the ban, 90% of the industry closed down or migrated to other markets, including the United States. Energy is the primary cost in Bitcoin mining, which is already a low-margin industry. Therefore, miners are highly sensitive to even small changes in energy prices.

If the United States imposes a blanket tax on Bitcoin mining, a similar exodus could occur here, leading to a loss of economic benefits and job opportunities for American communities. Moreover, by discouraging investment in domestic mining operations, the proposed tax risks ceding ground to other countries in the rapidly evolving global Bitcoin mining industry. This could hinder the United States' ability to remain competitive and benefit from the growth of this emerging sector.

4. CONCLUSION



The United States stands at a critical juncture in the evolution of the global Bitcoin mining industry. China's authoritarian decision to ban Bitcoin mining has handed a golden opportunity to the United States for establishing itself as a leader in this space. This influx of talent and capital is already creating a thriving American mining economy, driving technological advancement, spurring investment in energy infrastructure and generating significant economic benefits for local communities.

The administration's proposed Bitcoin mining excise tax is based on simple misconceptions and fails to recognize the potential benefits and opportunities presented by this new technology. If America fails to create a supportive and stable environment for Bitcoin mining, we risk squandering the advantages we currently enjoy and may find ourselves playing catch-up in a race we once had every opportunity to lead.

