



Sep 8, 2023

The Honorable Ron Wyden
Chairman
Committee on Finance
U.S. Senate
Washington, DC 20510

The Honorable Mike Crapo
Ranking Member
Committee on Finance
U.S. Senate
Washington, DC 20510

Dear Chairman Wyden and Ranking Member Crapo:

Satoshi Action Fund, a leading state focused non-profit, advocates for Bitcoin and its mining technology. Our mission is to ensure the United States remains the global hub for Bitcoin-related technologies.

The comments contained in this letter are supported by a diverse range of companies within the Bitcoin ecosystem, including Bitcoin miners. Together, they operate in 13 states, investing over \$650 million in the communities in which they operate. We appreciate the opportunity to address key questions regarding the digital asset industry, which directly impact America's leadership in Bitcoin technology.

Prior to responding to the specific inquiries of the Senate Finance Committee, we would like to share our general comments.

It is imperative for the U.S. to lead in Bitcoin mining and associated technologies. China's abandonment of Bitcoin technology led to the U.S. hosting over 40 percent of global mining activity.

The advantage of this technology extends beyond generating Bitcoin for Americans. Due to its distinctive energy profile, Bitcoin mining has begun to play a vital role in America's energy grid. Although mining is an energy-intensive process, it can swiftly reduce consumption by up to 97 percent, bolstering grid resilience during emergencies. In Texas, flexibility of mining loads can significantly mitigate power shortages and market disruptions. The flexibility of mining can also help reduce the need for costly and carbon-intensive peaker plants, improving emissions while saving costs.



According to Electric Reliability Council of Texas (ERCOT), Bitcoin miners delivered roughly 1,500 MWs of power back to Texas ratepayers during the middle of winter storm Elliot. Likewise, amid the recent summer heatwave in the U.S., Bitcoin miners significantly curtailed energy usage, contributing to grid resiliency and making energy available to cool homes and businesses. With these key features in mind, the tax treatment of mining should account for not only the financial aspects of the Bitcoin market but also the reliability of America's energy grid.

Accordingly, we wish to outline our general principles for the tax treatment of digital assets, including Bitcoin:

1. Tax treatment should be comprehensible to everyday Americans and businesses.
2. Bitcoin mining businesses should be treated on par with analogous industries, like those in the commodity sector.
3. Mining is important to the future of digital assets, and America benefits if those activities remain onshore.

Guided by these principles, Satoshi Action Fund and the signatories of this letter present the following comments:

Please describe the various types of rewards provided for mining and staking.

Bitcoin mining involves the process of adding new Bitcoin transactions to the blockchain and validating them using a consensus mechanism called proof-of-work. Transactions seeking validation are grouped into the "mempool." The validation process requires specialized computers to guess the correct combination of numbers and letters. The first miner to find a valid solution, known as a hash, meeting the criteria broadcasts it to the network. Other nodes verify the solution by applying the same hashing process to the block header. Valid and difficulty-target-meeting solutions result in mined blocks added to the blockchain.

Given the resource-intensive nature of this process, miners successfully mining a block are rewarded with new bitcoins, currently at 6.25 Bitcoin. These bitcoins are "created" and distributed from the remaining capped supply of 21 million. Additionally, miners receive transaction fees paid by those transferring Bitcoin, making the newly created Bitcoin and transaction fees incentives for maintaining the proof-of-work system that underpins the Bitcoin network.



After validating a block of transactions, miners proceed to select transactions from the mempool for the next block, repeating the process as long as transactions need validation and computational resources are engaged. This process, called "solo mining," involves individuals or companies operating collections of Bitcoin mining computers, aiming to validate a block of transactions and earn rewards.

Other arrangements exist that provide more predictable rewards and repayment certainty for miners' investments. One arrangement involves miners joining "mining pools," where multiple miners combine computational resources to enhance their chances of validating a block. The structure of these pools rewards participants as follows:

Miners connect their mining hardware to the pool's stratum address, contributing their hashing power to the collective effort.

The pool coordinates mining by distributing work to individual miners, providing block header information, transactions, and target difficulty. Miners in the pool collaboratively strive to find valid solutions.

When a miner finds a suitable solution all miners in the pool benefit. There are various methods for calculating the shared reward among miners but generally speaking, successfully mining a block results in distributed rewards among participants based on their contributed hashing power proportionally. For example, a miner contributing 10 percent of the total hashing power would receive roughly 10 percent of the block reward, minus pool fees.

How should returns and rewards received for validating (mining, staking, etc.) be treated for tax purposes?

When received through individual validation or from participation in a mining pool, Bitcoin and similar digital assets should not be taxed as income upon receipt. Drawing a parallel to another industry is challenging, but one might liken it to the extraction of commodities such as gold or silver. While gold and silver have long been recognized as mediums of exchange, they are not taxed at the moment of extraction. Instead, taxation arises when these commodities are sold for currency, at which point they are treated as business income. Applying this principle to Bitcoin would ensure consistent taxation and acknowledge the unique business models of many Bitcoin miners.

There are, however, nuances to consider. While miners receive newly "minted" Bitcoin as a reward for validating a block, they also earn fees in Bitcoin from those transacting on the network. It's evident that the newly minted Bitcoin should be treated as a commodity, with tax obligations arising at the point of sale. But how should the fees paid to miners be addressed?



For the sake of simplicity, it would benefit both miners and tax agents if no distinction were made between Bitcoin earned as a block reward and Bitcoin received as transaction fees.

Currently, the rewards in new Bitcoin significantly outweigh the fees from transactions. Except for the recent transaction surge with the introduction of Ordinals, the value of newly minted Bitcoin greatly exceeds transaction fee revenues. With transaction fees often below \$1 million per day, the value of newly generated Bitcoin would be roughly \$23 million at the current price of approximately \$26,000. Given this trend is expected to persist, distinguishing the sources of Bitcoin paid to miners may not justify the increased reporting complexity for both miners and tax agents.

However, if the Senate Committee posits that fees, being paid by those transacting in Bitcoin rather than by the Bitcoin blockchain, should be immediately treated as income, then a clear distinction between the two methods is essential.

Both individual miners and those in pools should maintain separate records of Bitcoin earned from the blockchain versus those received from users. Bitcoin rewarded from the blockchain should be taxed at the point of sale, while Bitcoin received as fees should be treated as regular income, with its value determined at the time of payment.

For instance, if a miner receives 6.25 Bitcoin from the blockchain and 1 Bitcoin in transaction fees when Bitcoin is valued at \$25,000 per coin, they would incur an income tax liability on the \$25,000 generated from fees.

If a block contains no transactions, termed as mining an empty block, then no income taxes would be due for that block.

What factors should be most important when determining when an individual is participating in the trade or business of mining?

To determine if a miner should be classified as a business or industry instead of a hobby or side project, it would be useful to examine the business through the lens of current IRS guidance which focuses on time spent and the desire for profits. Below are the current nine factors the IRS uses to determine if a hobby classifies as a business. This guidance should extend to the business of mining.

- Whether the activity is carried out in a businesslike manner and the taxpayer maintains complete and accurate books and records.
- Whether the time and effort the taxpayer puts into the activity show they intend to make it profitable.
- Whether they depend on income from the activity for their livelihood.
- Whether any losses are due to circumstances beyond the taxpayer's control or are normal for the startup phase of their type of business.
- Whether they change methods of operation to improve profitability.
- Whether the taxpayer and their advisors have the knowledge needed to carry out the activity as a successful business.
- Whether the taxpayer was successful in making a profit in similar activities in the past.
- Whether the activity makes a profit in some years and how much profit it makes.
- Whether the taxpayers can expect to make a future profit from the appreciation of the assets used in the activity.

Globally, numerous individuals operate modest Bitcoin nodes or partake in residential mining setups – this is key to the decentralization that makes Bitcoin a commodity. Some of these home miners ingeniously repurpose the heat generated from mining operations for beneficial utilities such as water heating or space heating. Whether they join pools to steadily accrue small amounts of Bitcoin or aspire to fortuitously validate a block alone, their mining scale and intent vary.

For miners that do not classify as a business, taxation should commence during the conversion of Bitcoin into fiat currencies for sake of simplicity and the relatively small amounts that will be converted. These funds should be treated as personal income for tax purposes.

It's worth noting that a significant number of individual miners might seldom, if ever, convert their Bitcoin into large cash amounts. Instead, they might utilize their Bitcoin directly for purchasing goods and services. In such scenarios, their transactions should be subjected to the same tax considerations- such as a sales tax. For more discussion on taxation on the use of Bitcoin to purchase goods and services, see our comments on the de minimis nonrecognition rule.



While there is undoubtedly a vested interest for both federal and state governments to monitor large-scale Bitcoin mining and sales, there should be minimal interest in tracking those amassing it on a smaller scale, as they are unlikely to owe much if any taxes. Analogously, while the government would justifiably monitor vast agricultural activities, it shouldn't expend resources on individuals selling a limited quantity of home-grown produce sporadically.

Please describe the appropriate treatment for the various types of income and rewards individuals staking for others or in a pool receive.

Drawing from our earlier discussions on Bitcoin mining rewards, the tax treatment for rewards earned from staking in pools or on behalf of others should be consistent. Specifically, these rewards should be taxed as income only when they are converted into fiat currency or other goods. If these rewards are directly used for transactions without conversion to dollars, then relevant taxes, such as sales tax, should apply, taking into account any de minimis exemptions.

For pool operators, the fees they collect from participants should be treated as regular income. The value of this income should be determined based on the value of the Bitcoin at the time of receipt.

Please provide feedback on the Biden Administration's proposal to impose an excise tax on mining.

The proposed excise tax could have severe repercussions for the Bitcoin industry, long-term environmental objectives, and the long-standing principle of fairness.

The U.S. Bitcoin mining industry stands at the forefront of advancements in chip technology and plays an essential role in driving economic growth, especially within rural areas. In these regions, miners often repurpose abandoned structures and bolster employment opportunities with competitive salaries. Importantly, they strengthen and stabilize the local tax base, catalyzing further economic development. Introducing a 30 percent excise tax could render many of these ventures unviable, leading to closures and leaving dependent communities without a viable alternative.

While proponents argue that this tax addresses environmental concerns stemming from the energy-intensive nature of mining, the measure itself would inadvertently exacerbate environmental issues. Bitcoin miners are inherently motivated to capitalize on otherwise wasted energy resources. Many utilize methane, a greenhouse gas roughly 80 times more potent than CO₂ over a 20-year period, that would otherwise be vented or flared. Companies like Crusoe Energy, Vespene, and XcelPlus harness methane emissions- be it from gas fields or landfills- to power Bitcoin mining operations, effectively reducing atmospheric emissions.



Given the warming intensity of methane, it may only be a few years before the entire Bitcoin network is greenhouse gas negative.

Furthermore, Bitcoin mining could propel the adoption of renewable energy. Solar and wind energy projects, crucial for diminishing grid emissions, often generate excess power during periods of low demand. Bitcoin miners can absorb this surplus, offering the consistent demand essential for these projects' economic viability. Additionally, during peak demand periods, Bitcoin miners can decrease their energy use by up to 97 percent, providing unparalleled grid stability.

If an excise tax was implemented, it would not be the end of global Bitcoin mining. Although the U.S. accounts for a significant portion of global Bitcoin mining, myriad miners operate internationally. In contrast to their American counterparts, many of these miners rely on more carbon-intensive energy sources. America's energy predominantly stems from cleaner sources like nuclear, hydro, renewables, and natural gas. Many countries in which Bitcoin mining is popular still rely on a large percentage of energy being generated from coal. If miners were driven out of the U.S. by this tax, a shift towards more carbon-intensive regions would ensue, inadvertently increase global emissions.

Lastly, levying a tax specifically on Bitcoin mining undermines the deeply rooted American principle of neutrality in energy usage. The grid remains indifferent to the purpose of energy consumption and instead focuses more on generation, be it for air conditioning to stay cool in a heat wave or a person drying their hair. If the government can arbitrate which energy applications are legitimate or wasteful, America risks politicizing energy consumption. It's crucial to uphold the principle of energy neutrality and steer clear of setting such precedents.

Should a de minimis nonrecognition rule like the rule in IRC Section 988(e) apply to digital assets? Why?

The application of a de minimis nonrecognition rule, such as it is applied to foreign currency, should be extended to digital assets when utilized as a medium of exchange. While a considerable portion of Americans acquire digital assets primarily as an investment avenue, there's an expanding demographic that employs digital assets, particularly stablecoins, as a transactional currency.

One of the primary advantages of transacting in digital assets is the elimination of the need to convert between different national currencies when engaging in cross-border commerce. The adoption rate of digital assets, such as stablecoins and Bitcoin, by online and digital-centric merchants is on an upward trajectory, which in turn streamlines transactions and minimizes transactional friction. Such a shift is poised to significantly enhance both trade dynamics and overall consumer welfare. Expanding this rule would not only be a victory for fairness, but a win for digital asset adoption and international commerce.



What threshold is appropriate and why?

The current exemption threshold for transactions in foreign currency stands at \$200. To maintain uniformity and clarity in regulation, this threshold should be mirrored for digital assets. However, considering the notable inflation and associated rise in consumer prices in recent years, this threshold ought to be indexed to inflation. By doing so, we ensure that the exemption remains relevant and meaningful in real terms over time.

Digital assets do not currently qualify for the IRC Section 170(f)(11) exception for assets that have a readily available valuation on an exchange. Should the substantiation rules be modified to account for digital assets? If so, in what ways and for which types of digital assets? More specifically, would something different need to be done for those publicly traded digital assets?

Satoshi Action Education, an affiliate of the Satoshi Action Fund, operates as a 501(c)(3) nonprofit, anchoring its efforts in enlightening the public and policymakers about the advantages of Bitcoin miners. Integral to its vision, the organization frequently receives donations in Bitcoin, which many donors prefer due to its direct alignment with the organization's mission and the overarching emphasis on fostering Bitcoin as a medium of exchange.

Often, these charitable contributions surpass the \$500 mark, thereby necessitating donors to provide documentation that affirms the value of their donations for them to avail the associated tax deductions.

Given the transparent nature of blockchain technology, Bitcoin, ether, and certain stablecoins — all of which are widely traded digital assets — should be recognized in a manner akin to other assets whose values are readily discernible. The blockchain technology inherent to these digital assets not only establishes their market values, which are easily accessible to both the market and the IRS, but also timestamps each transaction. This dual functionality ensures that the valuation of the donation at the precise moment of transfer is both transparent and verifiable.

In light of these arguments, we strongly advocate for a Congressional revision in the tax code, specifically designating certain digital assets as “readily valued assets.” Furthermore, a directive from the IRS reaffirming this stance would offer additional clarity. Such amendments are paramount to the seamless functioning of nonprofits like Satoshi Action Education and their undertakings.



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