

The Honorable Diane Farrell
Deputy Under Secretary for International Trade
International Trade Administration
U.S. Department of Commerce
1401 Constitution Avenue NW
Washington, DC 20230



July 5, 2022

Re: Developing a Framework on Competitiveness of Digital Asset Technologies (Docket No. 220509-0112)

Dear Under Secretary Farrell,

Proof-of-stake technologies are the future of digital asset innovation, and any federal regulatory framework for digital assets should prioritize policies that enhance America's competitiveness in attracting, growing, and maintaining proof-of-stake activities. Proof-of-stake technology enables a digital asset ecosystem that is environmentally sustainable, more economically inclusive, and a leading source of novel blockchain innovations. With proof-of-stake technologies poised to be an engine of future economic growth and innovation that can benefit the American people, federal leaders should work to ensure the U.S. is a world-leading competitor in fostering the domestic growth of Proof of Stake.

We would like to thank the Department of Commerce for the opportunity to provide input as the department develops a framework on competitiveness for digital asset technologies in response to Executive Order 14067, "Ensuring Responsible Development of Digital Assets". While our comment addresses a broad set of issues related to the future of digital asset businesses, we specifically address the Department's following questions:

- Question #2: What obstacles do U.S. digital asset businesses face when competing globally?
- Question #3: How does the U.S. regulatory landscape affect U.S. digital asset businesses' global competitiveness?
- Question #6: Can digital asset mining be compatible with a low-carbon economy and how can the U.S. government drive the development of sustainable assets?
- Question #14: How can digital assets promote financial inclusion for Americans historically underserved by financial services?

Creating clarity for individuals and entities engaged with Proof of Stake will both strengthen U.S. competitiveness and encourage the growth of environmentally sustainable digital assets. Like any innovation, proof-of-stake technology requires legal and regulatory certainty to develop, as ambiguity discourages long-term investment and growth. Clarifying how proof-of-

stake activities will be classified, taxed, and treated will incentivize related industries to develop in the U.S., which will lead to greater domestic investment and jobs. In addition, any effort to encourage the growth of proof-of-stake technology will also resolve concerns about the environmental sustainability of digital assets as proof-of-stake consensus mechanisms use mere fractions of the energy consumed by alternatives. Proof of Stake makes it possible for blockchains to operate at industrial scale while reducing the industry's energy consumption, and the U.S. should be committed to fostering the technology's growth within our country.

About the Proof of Stake Alliance (POSA)

The Proof of Stake Alliance (POSA) is an action-oriented industry alliance advocating for forward-thinking regulation of the growing proof-of-stake ecosystem. POSA brings together industry leaders, innovators, academics, service providers, and legal experts to amplify the voices of those who participate in proof-of-stake protocols, educate key decision makers, and collaborate across our campaigns, with a particular commitment to educating and advancing policy discussions regarding tax and regulatory issues.

Proof of Stake Overview and Benefits

Proof of Stake is a rapidly growing, 99% more energy efficient, next-generation type of blockchain consensus mechanism. Every blockchain is simultaneously maintained across a dispersed network of unrelated servers, often referred to as nodes. New groups of transactions (blocks) are recorded on the ledger and constantly monitored by nodes to ensure accuracy. Consensus mechanisms are an established set of rules for how blocks can be added in an accurate manner. Proof of Stake requires those who own native tokens of a given proof-of-stake blockchain to temporarily commit (or “stake”) tokens for the right to validate transactions and add new blocks to the blockchain. In exchange, those “validators” or “stakers” are rewarded with newly created tokens.

The technological advantages associated with Proof of Stake have led to an immense growth in related proof-of-stake projects and their use cases. By early 2022, blockchains using Proof of Stake had achieved 30% of the total crypto market (up from 20% the previous year).¹ A growing number of the largest blockchain protocols by market capitalization utilize, or are in the process of transitioning to, proof-of-stake consensus mechanisms.² Proof of Stake is not only continuing to grow as a share of the overall blockchain market, but it is also the preferred method for emerging blockchain applications. For example, 19 of the 20 largest smart contract platforms

¹ See Kraken, “The State of Staking: Q1 2022,” available at [https://6693156.fs1.hubspotusercontent-na1.net/hubfs/6693156/State%20of%20Staking%20Q1%202022%20by%20Staked%20_%20Kraken%20\(1\).pdf](https://6693156.fs1.hubspotusercontent-na1.net/hubfs/6693156/State%20of%20Staking%20Q1%202022%20by%20Staked%20_%20Kraken%20(1).pdf).

² See Coingecko, “Cryptocurrency Prices by Market Cap,” available at <https://www.coingecko.com/>.

used for web3 use cases are powered by proof-of-stake consensus mechanisms, including networks like Cardano, Ethereum 2.0, Solana, Polkadot and Avalanche.³

The growth of Proof of Stake has allowed the growth of an entire ecosystem of companies involved in its development. For example, a number of firms that facilitate staking like Blockdaemon, Figment, and Coinbase Cloud, have created billions of dollars of value, employ hundreds of people, and have generated significant investment.⁴ As more people continue to participate in staking, more companies based around staking applications will emerge and develop, and our national strategy should entice those companies to grow in the United States.

Greater Environmental Sustainability (Question No. 6)

Federal policymakers can drive competitive, sustainable development of digital assets by fostering a regulatory environment conducive to the growth and adoption of proof-of-stake technologies. Many leaders have expressed concern over the intensive energy consumption of mining operations, especially as U.S. leaders look to promote a low-carbon economy.⁵ Proof of Stake uses 99% less energy than proof-of-work blockchains (like Bitcoin).⁶ This is because proof-of-stake consensus mechanisms eliminate the need for the energy-intensive mining process altogether by relying on stakers to validate transactions. Successful mining requires solving algorithms of increasing computational intensity, which encourages mining operations to maximize their computing power and associated power usage. In contrast, proof-of-stake validators only need to stake digital assets, which does not require any meaningful significant energy usage.

Since Proof of Stake allows an environmentally sustainable digital asset economy, U.S. policymakers should enact technology-friendly policies to incentivize its growth. As detailed below, important policies like clear guidance that staking rewards should only be taxed when sold are part of a broader need for consistent, official rules on how Proof of Stake is classified and regulated. As Proof of Stake continues to grow, it can allow digital innovation to expand while simultaneously reducing the sector's energy consumption. While banning mining operations may eliminate mining in a single jurisdiction, bans do nothing to decrease the global demand for blockchains like Bitcoin and may only cause mining operations to move offshore to

³ See Staking Rewards, "Staking Ecosystem Report 2021," available at <https://cms.stakingrewards.com/wp-content/uploads/2021/10/2021-Staking-Ecosystem-Report-1.pdf>.

⁴ See Coindesk, "Crypto Infrastructure Firm Blockdaemon Raises \$207M at \$3.25B Valuation" (January 26, 2022) available at <https://www.coindesk.com/business/2022/01/26/crypto-infrastructure-firm-blockdaemon-raises-207m-at-325b-valuation/>; The Block, "Thoma Bravo leads \$110 million funding for Figment at \$1.4 billion valuation," available at <https://www.theblock.co/post/128058/thoma-bravo-leads-110-million-funding-for-figment-at-1-4-billion-valuation>; and The Block, "Coinbase Cloud has \$30 billion in crypto assets staked across 25 blockchains," available at <https://www.theblock.co/linked/126104/coinbase-clients-staking-more-than-30-billion-crypto-assets>.

⁵ See The New York Times, "Fight Looms Over New York's Bid to Slow Crypto-Mining Boom" (June 7, 2022), available at <https://www.nytimes.com/2022/06/07/nyregion/cryptomining-ban-ny.html>.

⁶ See Ethereum Foundation Blog, "Ethereum's energy usage will soon decrease by ~99.95%" (May 18, 2021), available at <https://blog.ethereum.org/2021/05/18/country-power-no-more/>.

locations with cheaper, dirtier sources of energy. Fostering Proof of Stake's growth in the U.S. will help accelerate digital assets' sustainable transition while also creating increased investment and benefits for Americans.

Broader Financial Inclusion (Question No. 14)

Another benefit of Proof of Stake is that it allows a broader population to participate in the growth of digital assets, thereby creating greater financial inclusion for historically underserved groups. Recent polling not only finds that one in five Americans have participated in crypto, but that participation rates are twice as high for Black Americans.⁷ Not only does Proof of Stake enable broader participation in purchasing digital assets, it also allows anyone to benefit as a validator in proof-of-stake networks. Americans do not need high-powered computers, industrial-grade mining operations, or complex technical skills to serve as validators. Even participants with small amounts of digital currencies can join staking pools and receive a share of rewards for validating new blocks. Staking services are now offered on many major crypto exchanges in a consumer-friendly manner. Any U.S. regulatory framework should account for this growing population and create sensible rules that encourage broad-based participation in growing proof-of-stake technology.

Enabling Advanced Applications

In addition to increased energy efficiency and greater inclusivity, Proof of Stake allows blockchain applications to operate at industrial scale with low latency, and greater security. Emerging blockchain applications include faster and more affordable interbank transfers, novel digital assets (like NFTs), providing real-time tracking in the aviation supply chain, and automated smart contracts such as proposed weather insurance for subsistence farmers.⁸ Within the government, agencies like the Department of Homeland Security have identified blockchain applications to improve identification verification and supply chain management.⁹ Proof-of-stake networks do more than simply make existing blockchain applications more efficient. Their operational efficiency and lower cost enable new, bold ideas to be implemented at an even larger scale. For these reasons, Proof of Stake promises to fuel the next wave of digital asset

⁷ See CNBC, "One in five adults has invested in, traded or used cryptocurrency, NBC News poll shows" (March 31, 2022), *available at* "<https://www.cnbc.com/2022/03/31/cryptocurrency-news-21percent-of-adults-have-traded-or-used-crypto-nbc-poll-shows.html>".

⁸ See <https://www.corda.net/info/reconciliation/spunta/>; See Decrypt, "Solana NFT Marketplace Magic Eden Raises \$130M, Plans Multi-Chain Expansion" *available at* <https://decrypt.co/103403/solana-nft-marketplace-magic-eden-raises-130m-plans-multi-chain-expansion>; see <https://www.aerotrax.com/>; see Lemonade, "Lemonade Crypto Climate Coalition to offer climate insurance to the world's most vulnerable farmers" (March 22, 2022) *available at* <https://investor.lemonade.com>.

⁹ See U.S. Department of Homeland Security, "Silicon Valley Innovation Program: Blockchain Portfolio" *available at* <https://www.dhs.gov/science-and-technology/blockchain-portfolio>.

technology, which is why American competitiveness in digital assets requires thoughtful regulations for proof-of-stake technologies.

The U.S. is Risking the Loss of Proof-of-Stake Investment to Competitors

As adoption and expansion of proof-of-stake technologies continues to grow, the U.S. needs to create a clear, fair, and innovation-friendly regulatory landscape that encourages entrepreneurs to build in the U.S. and gives Americans the confidence to participate in staking technologies. Proof of Stake is creating high quality jobs, tax revenue, and significant investment wherever it operates. The future of proof-of-stake systems are being established today, and the federal government needs to decide whether they want these companies to grow domestically or overseas.

Digital asset technology companies are already a source of American economic growth and investment, but so far, the proof-of-stake ecosystem has been globally distributed. For example, most of the largest networks that use or are switching to Proof of Stake are associated with companies or foundations located internationally. Countries like Switzerland, which is home to many major proof-of-stake networks, have attracted these organizations through innovation-friendly rules and competitive tax rates.¹⁰ Notably, Switzerland's primary financial regulating authority has established clear rules on digital asset governance, which encourages the long-term investment by digital asset companies.¹¹ The country took a proactive approach in creating 'technology neutral' rules that allowed the industry to flourish and is now reaping significant benefits.¹²

Consider the benefits the United States has experienced from being home to the largest computing and internet technology companies. Through a combination of attracting the world's best talent, an innovation-friendly regulatory environment, and a robust investment ecosystem, previous generations of technological innovators started and grew their companies in the United States. In a few short decades, those firms have rapidly scaled and created trillions of dollars in value and millions of jobs. Just as importantly, America has reaped unquantifiable cultural, geopolitical, and social benefits by being the world's technological leader. As CFTC Chair Rostin Behnam recently testified, "The need to uphold American leadership and stewardship of

¹⁰ See The Financial Times, "Why is Switzerland so Keen on Cryptocurrencies?" available at <https://transact.ft.com/cryptocurrencies/>.

¹¹ See Coinfirm, "Switzerland Crypto Regulations: KYC, Taxes & FINMA," available at <https://www.coinfirm.com/blog/switzerland-crypto-regulations/#>.

¹² See Forbes, "How The Swiss Government Is Helping Bitcoin Grow Up," (April 29, 2022), <https://www.forbes.com/sites/martinrivers/2022/04/29/how-the-swiss-government-is-helping-bitcoin--blockchain-technology-grow-up/?sh=2f9d9d3d3aeb>.

[digital assets and blockchain technology] is clear. Critical issues, such as national security, trade, and effectively addressing climate change risks, to name a few, will also be at stake.”¹³

By focusing on fostering a dynamic, world-leading regulatory framework for digital assets, and particularly for proof-of-stake technologies, U.S. policymakers have an opportunity to establish future decades of technological leadership. While the initial wave of digital asset technologies have been globally distributed, the United States still has an opportunity to be the competitive hub for future innovations going forward.

U.S. Competitiveness in Proof of Stake Requires Clear, Innovation-Friendly Rules and Guidelines

The greatest barrier to widespread adoption and growth of proof-of-stake networks in the U.S. is a lack of clear rules and patchwork regulations. For example, the IRS has still refused to issue official guidance on how staking rewards are to be taxed and treated. As the digital asset market continues to boom, developers and investors in proof-of-stake technology need to know how their businesses will be defined, treated, and taxed in the U.S., as do everyday Americans who want to participate in and benefit from these technologies. Proof of Stake will continue to create jobs, generate tax revenue, and foster innovative blockchain applications. Clear, consistent guidelines are critical for ensuring those benefits occur in the U.S. instead of competitor countries.

Fair Taxation of Staking Rewards

One of the most pressing and frustrating issues for Americans is the lack of official guidance on the taxation of staking rewards despite years of requesting clarity from federal agencies. As described in this comment’s overview of Proof of Stake, staking rewards are created by stakers who validate the accuracy of the blockchain. A critical legal and policy question is how these rewards are classified for tax purposes and whether they are to be taxed when they are created or when they are sold. Staking rewards are central to any proof-of-stake business and a key motivator for everyday Americans who serve as stakers. Whereas countries like Australia, Finland, New Zealand, Norway, and Switzerland have all created official rules for when staking rewards are to be taxed, the IRS has failed to provide any clear guidelines.¹⁴ Numerous congressional leaders have asked the IRS for explicit guidance in letters dating back to 2020.¹⁵ A 2021 federal lawsuit over staking rewards between the IRS and an American staker, Joshua

¹³ See CFTC, “Testimony of Chairman Rostin Behnam Regarding ‘Examining Digital Assets: Risks, Regulation, and Innovation’” (February 9, 2022) *available at* <https://www.cftc.gov/PressRoom/SpeechesTestimony/opabehnam20>.

¹⁴ See The Law Library of Congress, “Taxation of Cryptocurrency Block Rewards in Selected Jurisdictions” (January 2021), *available at* <https://tile.loc.gov/storage-services/service/l1/l1glrd/2021666100/2021666100.pdf>.

¹⁵ See “Letter to Commissioner Charles P. Rettig” (July 29, 2020), *available at* <https://www.proofofstakealliance.org/wp-content/uploads/2022/03/Final-Proof-of-Stake-IRS-Letter-7.29.20.pdf>.

Jarrett, resulted in the IRS offering to return the tax payments on Mr. Jarrett's unsold staking rewards, thereby suggesting those rewards should only be taxed when sold.¹⁶ However, the IRS has refused to provide clear, forward-looking guidance to resolve this issue for all stakers.

Unclear tax guidelines for staking rewards not only create inconsistent tax policy, they also inhibit the growth of proof-of-stake networks and actively discourage Americans from participating. Staking rewards are created property, and like all other created property, should only be taxed at the point of sale.¹⁷ Just like art created by an artist or a cake made by a baker, created property is only taxed when sold. In addition to being inconsistent with existing tax law, taxing staking rewards when they are acquired would create confusion and an administrative burden for any participants in proof-of-stake technologies. Given the rapid rate at which validators receive rewards and the shifting prices of digital assets, recording and accounting tax payments would be overly complex and increase the barrier to entry for potential participants. Not only that, but such a tax policy would require staking participants to sell or withhold staked assets to meet their tax liability. Such withdrawals would slow the growth of proof-of-stake networks and could also create unnecessary price volatility in digital assets as stakers are forced to sell their holdings on a regular basis to ensure they can meet their tax liability.

Without clear guidelines, potential stakers and proof-of-stake companies still do not know how their activities will be taxed in the U.S., which only encourages their decisions to relocate elsewhere. Creating clear, transparent tax laws for staking rewards will serve to strengthen U.S. competitiveness in digital assets and should be prioritized in future policy frameworks.

Conclusion

POSA applauds the Department of Commerce's effort and looks forward to a national strategy that allows innovators and entrepreneurs to compete in digital assets technology. We are committed to continuing to advocate for policies that allow the United States to be a world leader in proof-of-stake technology, and we are always available as a technical resource for the Department of Commerce as it finalizes its regulatory framework. Any effective framework that results in consistent, whole-of-government rules and guidelines for Proof of Stake and other digital asset technologies will serve as a competitive advantage for the U.S. With our nation's combination of a robust investment pipeline, world-leading technical talent, and legacy of technological leadership, America should be the world-leader in digital asset innovation. American leadership in proof-of-stake technologies will not only benefit our national interests but will also ensure the future of digital assets are environmentally sustainable and compatible

¹⁶ See Proof of Stake Alliance, "IRS Waves White Flag in Lawsuit Over Taxability of Cryptocurrency Rewards" (February 3, 2022) *available at* <https://www.proofofstakealliance.org/wp-content/uploads/2022/02/POSA-Press-Release-Feb-3-2022.pdf>.

¹⁷ See Stephen Turanchik, "Opinion: The IRS Should Be Encouraging Staking Activity in the U.S." (April 25, 2022) *available at* <https://news.bloombergtax.com/tax-insights-and-commentary/the-irs-should-be-encouraging-staking-activity-in-the-u-s>.

with a low-carbon economy. Our nation's current patchwork regulatory landscape and issues such as the tax treatment of staking rewards should not be the reason the U.S. misses out on our share of future innovation and investment.

Sincerely,

A handwritten signature in black ink, appearing to read "Alison Mangiero", with a long horizontal flourish extending to the right.

Alison Mangiero
Acting Executive Director
Proof of Stake Alliance