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MINING FOR ANSWERS: DECRYPTING THE SECURITIES PUZZLE OF CRYPTOMINING HOSTING CONTRACTS

Waleed Alkoor*

In the evolving realm of financial innovation, cryptocurrency has promised to stand out as a potential disruptor to traditional financial systems. However, in the midst of this excitement, many have fallen prey to cryptocurrency scams and deceptive schemes, drawing attention from regulatory bodies meant to protect investors like the Securities and Exchange Commission ("SEC"). While the SEC has commented on the status of certain cryptocurrencies as securities, it has rarely addressed cryptomining, the complex and foundational process many cryptocurrencies like Bitcoin depend on for network security and integrity. Over the past decade, the cryptomining industry has expanded substantially and now increasingly involves arrangements to clients for the sale and hosting of mining equipment in specialized facilities.

Cryptomining hosting arrangements recently came under scrutiny with the SEC's prosecution of Green United, signaling the possibility of these "hosting contracts" being categorized as securities. While the pending Green United case involves allegedly fraudulent activity that is distinguishable from industry standard hosting contracts, it still hints at the SEC's stance on such contracts moving forward. However, this Article argues that standard hosting contracts do not meet the requisite criteria to be considered "investment contract" securities and are better conceptualized as mere service agreements. While investor protection is crucial, the complexity and novelty of cryptomining make federal securities law

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and regulation ill-suited to directly regulate this fledgling and highly technical industry.

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I. INTRODUCTION

"*Own a part of the largest, public global decentralized power grid in the world, and help #setpowerfree*."[1]

[1] GREEN UNITED, https://setpowerfree.com/ [https://perma.cc/5T9W-252K] (last visited Feb. 15, 2024).

This was the captivating vision that Green United, LLC promised on its website, beckoning the eco-conscious investor with the lure of a new environmentally focused crypto asset named GREEN on the purported "Green Blockchain."[2] The company's commitment was further reinforced by its promise "to make investments in renewable energy projects that support the mission and vision of GREEN."[3]

The project was the brainchild of Wright Thurston, a veteran blockchain entrepreneur who founded various other digital asset projects, and Kristoffer Krohn, a successful business mentor and real estate mogul who acted as a promotor.[4] Together, this optimistic duo offered investors a golden ticket to the future of energy and finance. Their pitch was compelling: invest in "Green Boxes" and "Green Nodes" and be part of an ambitious plan to establish a "public global decentralized power grid."[5]

Green United stated that these products would be used to mine the newly developed GREEN token and that the company would leverage its expertise and resources to efficiently operate the mining machines and distribute to each investor the GREEN assets earned.[6] Between April 2018 and December 2022, Green United reportedly amassed over $18 million through the sale of these cryptomining products.[7]

There was only one issue. According to an investigation by the Securities and Exchange Commission ("SEC"), GREEN "was not a mineable crypto asset and the 'GREEN blockchain' promoted . . . did not exist."[8] In a March 2023 lawsuit, the SEC claimed that the hardware sold by Green United were actually Bitcoin mining rigs and that investors' accumulation of GREEN was a result of the company's periodic manual distribution of GREEN tokens to

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[2] *See id.*

[3] *Id.*

[4] *See Wright Thurston*, IQ.WIKI, https://iq.wiki/wiki/wright-thurston [https://perma.cc/LF3W-B3UU] (last visited Feb. 15, 2024); Complaint at 4, SEC v. Green United, No. 2:23-cv-00159 (D. Utah Mar. 3, 2023).

[5] *Green United*, No. 2:23-cv-00159, at 6.

[6] *Id* at 2.

[7] *Id*.

[8] *Id.* at 2.

investors' wallets—not crypto acquired through any GREEN mining operations.[9] Green United now faces charges for offering unregistered securities, deceiving investors through material misstatements, and operating an illegal scheme to defraud investors.[10]

This ongoing legal battle is more than just a crackdown on alleged fraudulent activities: It is a pivotal moment that could set a significant precedent for how cryptomining contracts are viewed and regulated by the SEC. More important than the fraudulent aspect of this case is the potential precedent that could be established by how the SEC chooses to frame the sale of "mining equipment." The SEC raises the critical question of whether the sale or leasing of mining equipment itself constitutes an offer of an "investment contract."[11] If it does, then it would be considered a security and thus subject to federal securities laws and regulations. This is uncharted territory, as the SEC has not previously suggested that selling or hosting mining equipment might require securities registration.[12]

For years, many public companies have been selling mining equipment and offering hosting services with no complaint from the SEC.[13] The finding that these activities should be classified as securities offerings—therefore subject to registration and disclosure requirements—would pose a significant shift in the landscape. This could have far-reaching implications for the future of crypto asset investments and the broader digital economy.

While the determination in *SEC v. Green United, LLC* is still pending, this Article urges caution towards the SEC's claim that the sale or hosting of mining equipment should be treated as securities.

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[9] *Id.* at 2, 10; Jesse Coghlan, *SEC Has No Authority Over Crypto, Defendants Argue in $18M Fraud Lawsuit*, COINTELEGRAPH (May 23, 2023), https://cointelegraph.com/news/sec-no-crypto-authority-green-united-mining-scheme [https://perma.cc/YW9R-GUJ8].

[10] *Green United*, No. 2:23-cv-00159, at 13–17.

[11] *Id.* at 9–10.

[12] *See* Coghlan, *supra* note 9.

[13] *See, e.*g., George Kaloudis, *Through It All, the Bitcoin Mining Industry Looks Set for Growth*, COINDESK (July 24, 2023), https://www.coindesk.com/consensus-magazine/2023/07/24/through-it-all-the-bitcoin-mining-industry-looks-set-for-growth/ [https://perma.cc/Q24R-SLP4].

This Article further contends that Green United may be a particularly unsympathetic defendant with problematic practices unrepresentative of industry standards. The structural differences between typical cryptomining hosting operations and the "Green scheme" support that general cryptomining hosting arrangements are more accurately conceptualized as service agreements rather than as investment contracts. This Article argues that standard hosting agreements do not fulfill the requisite criteria to be classified as investment contracts under the Securities Act of 1933, given that hosting agreements distinctly fail to satisfy most of the elements required under the *Howey* test. Consequently, entities operating hosting facilities should not be subjected to SEC registration and disclosure mandates when offering hosting contracts to clients.

The remainder of this Article unfolds in four parts. Part II provides background on the fundamentals and structure of cryptomining and hosting arrangements. Part III articulates the prevailing legal framework that oversees securities regulations, including the Securities Act of 1933 and the *Howey* test. Part IV explores the application of each element of the *Howey* test to cryptomining hosting contracts. Finally, Part V advocates for regulation that does not stifle the growth, sustainability, or decentralization principles of cryptocurrency and also emphasizes alternative legal remedies and regulatory proposals to combat fraudulent practices.

II. CRYPTOMINING 101: A BRIEF BACKGROUND

Despite its intricacies, a growing number of Americans are using cryptocurrency ("crypto"), with nearly one-fifth having invested in some form of it.[14] Nonetheless, cryptomining, with its complicated technical and infrastructural requirements, largely remains an enigma to the average investor. This undoubtedly helps explain how an unminable coin like GREEN managed to generate $18 million in

[14] Michelle Faverio & Olivia Sidoti, *Majority of Americans Aren't Confident in the Safety and Reliability of Cryptocurrency*, PEW RSCH. CTR. (Apr. 10, 2023), https://www.pewresearch.org/short-reads/2023/04/10/majority-of-americans-arent-confident-in-the-safety-and-reliability-of-cryptocurrency/ [https://perma.cc/F77G-PHVR] ("Overall, 17% of U.S. adults say they have ever invested in, traded or used a cryptocurrency.").

sales for purported "mining" equipment.[15] This Part provides a brief overview of cryptomining and demonstrates the gradual shift from miners—individuals who mine cryptocurrency—operating solo from the confines of their homes to collaborating with specialized hosting facilities.

A. Cryptocurrency and the Blockchain Explained

In the era of digital finance, "blockchain" and "crypto" are two buzzwords that are often used interchangeably. However, they are not synonymous.[16] A blockchain functions as an electronic ledger, like a digital spreadsheet, but with a significantly larger capacity for data storage.[17] It stores extensive information within individual units known as "blocks."[18] When a block reaches its maximum storage capacity, it is linked or "chained" to the previously filled block, and a new block is subsequently brought into service for further data storage.[19] Unlike a standard spreadsheet, these blocks are not confined to a single location but are spread across numerous computers, forming a "distributed ledger."[20]

Cryptocurrency is built upon this technology. Bitcoin, the first and most well-known cryptocurrency, revolutionized digital finance in 2009 by harnessing blockchain technology to facilitate financial transactions.[21] Satoshi Nakamoto, the pseudonym for the enigmatic creator of Bitcoin, proposed that this system would allow "two willing parties to transact directly with each other without the need for a trusted third party."[22] In essence, cryptocurrency serves as a digital alternative to traditional payment systems, operating with

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[15] *Green United*, No. 2:23-cv-00159, at 2.

[16] *See Blockchain vs Cryptocurrency,* ZEBPAY (Aug 16, 2023), https://zebpay.com/blog/blockchain-vs-cryptocurrency [https://perma.cc/K6QE-JCYK].

[17] *Id.*

[18] *Id.*

[19] *Id.*

[20] *Id.*

[21] *See id.*; *What is Cryptocurrency and How Does it Work?*, KASPERSKY, https://usa.kaspersky.com/resource-center/definitions/what-is-cryptocurrency [https://perma.cc/T5XB-H4RN] (last visited Mar. 2, 2024).

[22] Satoshi Nakamoto, Bitcoin: A Peer-to-Peer Electronic Cash System 1 (2008) (unpublished manuscript) (on file with Bitcoin).

complex encryption algorithms that enable it to "function both as a currency and a virtual accounting system."[23] Cryptocurrencies are stored in digital wallets, which are secure digital interfaces that allow users to store and transact in crypto.[24] Each transaction made between these wallets is permanently recorded on the cryptocurrency's respective blockchain or distributed ledger, which ensures transparency, immutability, and security.[25] The critical process of validating these transactions is known as cryptomining, a topic that will be explored in further detail below.

B. Decrypting Cryptomining: Understanding Proof of Work

Cryptomining, at its core, serves two primary purposes. First, it is the process by which transactions are verified and then added to the public ledger, a critical step for maintaining the integrity of the cryptocurrency network.[26] Second, it is how new units of cryptocurrency are generated, rewarding miners for their efforts in securing the network.[27]

Given the decentralized nature of cryptocurrencies, there is no central authority or institution, such as the Federal Reserve, to validate crypto transactions.[28] This necessitates a process to confirm the validity of transactions among participants. Without such mechanisms, the network would be vulnerable to fraud, double-spending, and other malicious activities.[29] Thus, to maintain trust and security in the network, cryptomining is needed to facilitate the verification process. While cryptocurrencies can use a variety of

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[23] *The Basics About Cryptocurrency*, OSWEGO STATE UNIV. N.Y., https://www.oswego.edu/cts/basics-about-cryptocurrency [https://perma.cc/G5CM-ZXKF] (last visited Mar. 2, 2024).

[24] Celiza P. Bragança & Louis L. Straney, *Cryptocurrencies and Tokens: What Are They and Who Regulates Them?*, 25 PIABA B.J. 39, 42 (2018).

[25] *See id.* at 42–43.

[26] *See Bitcoin and Altcoin Mining*, 8 CT. UNCOURT 16, 16 (2021).

[27] *See id.*

[28] *See* Nakamoto, *supra* note 22, at 1 ("What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party.").

[29] *Id.* at 2.

processes to verify transactions, the most popular, tried, and tested is Proof of Work ("PoW").[30]

The foundation of cryptomining, especially for the most widely traded cryptocurrencies like Bitcoin and Litecoin, is based on this PoW consensus mechanism.[31] In PoW, individuals or entities with powerful computing equipment (known as "miners") compete to solve complex cryptographic puzzles in return for a reward in cryptocurrency from the blockchain network.[32] The first miner to solve the puzzle has the right to add a new block of transactions to the blockchain.[33] Think of it as a worldwide competition where numerous accountants (miners) are working simultaneously to verify the same set of transactions. Instead of a centralized bank validating transactions, these miners race to solve complex mathematical puzzles using their computers. The first to solve the puzzle gets to add a verified page (block) to a public ledger (blockchain) and is rewarded with a newly minted piece of digital currency. This process ensures all transactions are accurate and prevents fraud, much like auditors in a financial system.

Due to intense competition and increasing puzzle difficulty, many miners opt to join mining pools, which are groups of miners that combine their computing power to increase their chances of solving cryptographic puzzles.[34] This approach allows them to have a better chance of earning rewards, which are then shared among the pool members pro-rata based on the amount of computing power they contributed.[35]

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[30] Erika Napoletano, *Proof of Work Explained*, FORBES (Aug. 25, 2023), https://www.forbes.com/advisor/investing/cryptocurrency/proof-of-work/ [https://perma.cc/6XMK-JC7B] ("Approximately 64% of the total market capitalization of the universe of cryptocurrencies use proof of work for validation.").

[31] *Id.*

[32] *Id.*

[33] Nakamoto, *supra* note 22, at 4.

[34] *See Pooled Mining*, BITCOIN WIKI, https://en.bitcoin.it/wiki/Pooled_mining [https://perma.cc/49KZ-366Q] (last visited Oct. 1, 2023) ("Pooled mining is a mining approach where multiple generating clients contribute to the generation of a block, and then split the block reward according [to] the contributed processing power.").

[35] *Id.*

As more miners join the network and compete to validate transactions, the cryptographic puzzles they must solve become more complex.[36] Thus, rewards are less frequently distributed to individual miners. This increase in complexity, known as the mining "difficulty," ensures that blocks are added to the blockchain at a relatively consistent rate, regardless of the total computational power of the network.[37] This guarantees not just the creation of new coins, but also the security and integrity of the entire blockchain system. In short, PoW is a decentralized verification process that eliminates the need for third-party intermediaries, making it robust and resistant to fraud.[38]

C. From Home to Host: The Rise of Hosting Facilities

In response to the growing complexity of the mining process, the cryptomining industry has seen the advent of specialized devices called Application-Specific Integrated Circuits ("ASIC"). While these devices—often referred to as "mining rigs"—are extraordinarily efficient, they have vast energy and cooling requirements.[39] This development has completely transformed cryptomining from a household endeavor into an energy-intensive operation demanding significant computational prowess.[40]

Mining profits have decreased substantially since September 2022, when Ethereum, historically the most profitable crypto to

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[36] Nakamoto, *supra* note 22, at 3.

[37] *Id.*

[38] *See id*. at 1.

[39] For reference, the standard S19 ASIC mining rig uses almost four times more electricity than the average American household. *Compare* Hashrate Index, *Antminer S19 Series Profitability and Price Guide*, HASHRATE INDEX (Aug. 25, 2022), https://hashrateindex.com/blog/antminers19-profitability-price/ [https://perma.cc/KUK9-U95T] (indicating S19 average of about 3250 kWh per month), *with How Much Electricity Does an American Home Use?,* U.S. ENERGY INFO. ADMIN., https://www.eia.gov/tools/faqs/faq.php?id=97&t=3 [https://perma.cc/A7C2-A3Y5] (last visited Oct. 1, 2023) (describing the American household average of about 886 kWh per month).

[40] For more information on the resource-intensive transformation in the design of cryptomining, see Jon Truby, *Decarbonizing Bitcoin: Law and Policy Choices for Reducing the Energy Consumption of Blockchain Technologies and Digital Currencies*, 44 ENERGY RES. & SOC. SCI. 399 (Oct. 2018).

mine by far, moved completely to a Proof of Stake process that no longer requires mining.[41] This shift, coupled with increasing energy costs and the escalating difficulty levels of the mining algorithms, has made it more difficult for individual miners using conventional computer setups to mine profitably from their homes. These "retail miners" simply cannot compete with institutions that have access to facilities with an industrial capacity.

One solution that has emerged to tackle this issue is hosting facilities. "Colocation" or "hosting" occurs when an individual miner contracts with a hosting entity (presumably with access to industrial power and cooling) to locate their mining rigs in the firm's facility (the "hosting facility") for a negotiated fee.[42] Potential clients may either provide their pre-existing mining rigs to the facility or purchase equipment directly from the hosting partner in a completely remote turn-key arrangement.[43]

Thus, hosting facilities have emerged as the ideal solution, offering a tailored environment designed for these power-hungry machines. Strategically situated in areas with low-cost electricity, renewable energy, and cooler climates, these facilities present miners with the infrastructure essential for optimized mining operations.[44] They often have cheaper all-in costs (maintenance included) than mining at home.[45] The collaboration between miners and hosting facilities not only bolsters processing speeds, but also

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[41] *See generally Proof of Work Explained*, ETHEREUM.ORG (Sept. 21, 2023), https://ethereum.org/en/roadmap/merge/. [https://perma.cc/3SDB-XW2X] (explaining the Ethereum network's "Merge," shifting Proof of Work to Proof of Stake).

[42] *See, e.g.*, *Hosting Services*, CORETECH MINING, https://coretechmining.com /hosting [https://perma.cc/76VK-7K9N] (last visited Oct. 1, 2023).

[43] *See, e.g.*, *id*.

[44] *See* Brandon Roberts, *'It's like the Wild West': Kentucky No. 2 in Nation for New Cryptocurrency Mining Operations*, SPECTRUM NEWS 1 (Jan. 7, 2022), https://spectrumnews1.com/ky/louisville/news/2022/01/07/kentucky-popular-place-for-crypto-mining [https://perma.cc/V7SC-GFAB].

[45] *Compare Hosting Services*, *supra* note 42 (hosting cost of $0.09 per kWh in August 2023), *with Average Energy Prices for the United States, Regions, Census Divisions, and Selected Metropolitan Areas*, U.S. BUREAU LAB. STAT., https://www.bls.gov/regions/midwest/data/averageenergyprices_selectedareas_table.htm [https://perma.cc/H54A-P3T4] (last visited Oct. 1, 2023) (detailing the U.S. average electricity cost of $0.17 per kWh in August 2023).

enhances mining yields while substantially trimming overhead expenses. This migration towards organized, industrial-scale mining centers reflects the dynamic and intricate landscape of contemporary cryptomining.

These arrangements between the miner and the hosting facility (the "hosting contract") raise significant questions about their legal and regulatory standing. Some of the central issues under scrutiny include the degree of control the host exerts and the miner's level of participation during the mining process. These factors are critical in determining if the arrangement should be deemed a passive investment contract that would warrant regulatory oversight as a security. While regulatory authorities clamp down to safeguard investors in light of high-profile crypto schemes and scandals, these concerns alone do not justify categorizing such hosting contracts as securities.[46] This classification would bring about substantial compliance challenges and financial costs for hosting facilities, potentially altering the accessibility and feasibility of such contracts for miners and influencing the future direction of the cryptomining industry.

III. NAVIGATING MODERN SECURITIES REGULATIONS

Simply defined, securities are generally any form of financial instrument that provides for the possibility of profit through the efforts of someone other than the investor.[47] Securities regulations are meant to ensure that such arrangements are fair. This requires

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[46] *See, e.g.*, *SEC Charges Samuel Bankman-Fried with Defrauding Investors in Crypto Asset Trading Platform FTX*, SEC, (Dec. 13, 2022), https://www.sec.gov/news/press-release/2022-219 [https://perma.cc/9XBP-AKMS]; *see also* Sabrina Willmer, *Crypto 'Mixer' Convicted of Money Laundering on Bitcoin Fog*, BLOOMBERG L., (Mar. 12, 2024), https://www.bloomberg.com/news/articles/2024-03-12/crypto-mixer-convicted-of-money-laundering-on-bitcoin-fog?embedded-checkout=true [https://perma.cc/4WXW-LRQU].

[47] Will Kenton, *What Are Financial Securities? Examples, Types, Regulation, and Importance,* INVESTOPEDIA, https://www.investopedia.com/terms/s/security.asp [https://perma.cc/9UFW-YNDV] (last visited Oct. 1, 2023).

detailed information to be disclosed so that investors can make informed decisions about the risks and potential returns.[48]

Under federal law, the primary statute controlling securities regulations is the Securities Act of 1933 (the "1933 Act"). Within the 1933 Act, securities are broadly defined to include a wide range of financial instruments such as stocks, bonds, and investment contracts.[49] The categorization of an instrument as a security has profound implications, as it then becomes subject to extensive regulatory oversight, disclosure requirements, and potential legal liabilities for issuers and intermediaries involved in their sale and distribution.[50]

A. The 1933 Act: Context and Contents

In the aftermath of the devastating stock market crash of 1929, Congress enacted the Securities Act of 1933 to restore investor faith in American capital markets.[51] This legislation was a cornerstone of President Franklin D. Roosevelt's historic New Deal.[52] The 1933 Act, also known as the "Truth in Securities" law, represented a significant shift from the previous state-centric approach to securities regulation and marked the first major federal legislation governing the sale of securities.[53] Its primary aim was to protect investors by ensuring that they received full disclosure of financial

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[48] *See* Securities Act of 1933, Pub. L. No. 73-22, 48 Stat. 74 (codified as amended at 15 U.S.C. §§ 77a–77aa).

[49] Securities Act of 1933 § 2(a)(1), 15 U.S.C. § 77b(1).

[50] *See* Securities Act of 1934 § 13(a), 15 U.S.C. § 78m(a) (requiring periodic reporting by issuers to the SEC); 15 U.S.C. § 78n(a) (governing the solicitation of proxies and disclosure information); 15 U.S.C. § 78o(d) (requiring issuers to file periodic reports with the SEC under certain conditions).

[51] *See* Will Kenton, *Securities Act of 1933: Significance and History,* INVESTOPEDIA (Dec. 16, 2023), https://www.investopedia.com/terms/s/securitiesact1933.asp [https://perma.cc/W885-AW6G] (last visited Mar. 1, 2024); *National Recovery Administration (NRA) and the New Deal: A Resource Guide*, LIBR. OF CONGRESS, https://guides.loc.gov/national-recovery-administration/new-deal [https://perma.cc/G96E-SDPM] (last visited Mar. 2, 2024).

[52] *National Recovery Administration (NRA) and the New Deal: A Resource Guide*, *supra* note 51.

[53] Kenton, *supra* note 51.

and other important information about publicly sold securities.[54] One year later, the Securities Exchange Act of 1934 authorized the creation of the Securities and Exchange Commission, the regulatory agency endowed with broad powers to enforce securities laws and regulations.[55]

One of the 1933 Act's most important objectives is that it provides guidance on the definition of securities. Section 2 of the 1933 Act defines securities to explicitly include instruments such as notes, stocks, bonds, undivided interests in oil and gas, and investment contracts.[56] If applicable, these securities must be registered with the SEC, in a detailed and comprehensive process that includes accountants, underwriters, and compliance officers.[57] Once registered, issuers of these securities must keep up with mandatory disclosures such as periodic financial reports, material changes, and costs associated with ongoing compliance and reporting obligations.[58]

Section 5 of the 1933 Act is another major and highly cited provision in securities regulation.[59] Section 5 prohibits the sale or offering of unregistered securities to the public.[60] It is the primary authority implicated in legal disputes on whether an instrument constitutes a security. There is a variety of ways in which Section 5 violations can be enforced, including injunctive measures, fines, civil causes of action, and even criminal penalties.[61]

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[54] *See What is the Securities Act of 1933?*, WINSTON & STRAWN LLP https://www.winston.com/en/legal-glossary/what-is-securities-act-of-1933 [https://perma.cc/BS28-MXT9] (last visited Mar. 2, 2024).

[55] 15 U.S.C. § 78d.

[56] Securities Act of 1933 § 2(a)(1), 15 U.S.C. § 77b(1).

[57] *See* THOMAS L. HAZEN, LAW OF SECURITIES REGULATION § 3:2 (8th ed. 2023).

[58] Securities Offering Reform, Securities Act Release No. 33-8591, 70 Fed. Reg. 44722 (July 19, 2005). *See, e.g.*, 15 U.S.C. § 78m(a) (requiring periodic reporting by issuers to the SEC).

[59] THOMAS L. HAZEN, SECURITIES REGULATION, CASES AND MATERIALS 123 (10th ed. 2020) (explaining the complexity and broad scope of § 5 through different periods of the registration process).

[60] *See* 15 U.S.C. § 77e.

[61] HAZEN, *supra* note 57, *§* 7:2.

B. Investment Contracts and the Howey Test

"Investment contract" has proven to be the most difficult financial instrument to define in securities litigation.[62] An investment contract is loosely understood as a "contract or scheme for the 'placing of capital or laying out of money in a way intended to secure income or profit from its employment.' "[63] Some of the unconventional transactions that courts have found to constitute investment contracts include citrus grove real estate,[64] payphone leasebacks,[65] and motivational course pyramid schemes.[66]

The seminal case for evaluating whether an arrangement is an investment contract is *SEC v. Howey.*[67] In *Howey*, the Supreme Court determined that a transaction constitutes an investment contract if it meets a specific four-factor test (the "*Howey* test").[68] The facts in *Howey* centered on the sale of citrus grove plots in Florida, where buyers would purchase land and then lease it back to the promoter, Howey-in-the-Hills Service, Inc.[69] The company would tend to the land and cultivate, harvest, and market the produce.[70] The profits from the sold produce would then be divided among investors, with distributions not tied to the volume of sales generated specifically from each investor's allotted parcel of land.[71] While the buyers had the option to service the land themselves, 85% chose the leaseback option, relying on the efforts of the promoter.[72] The investors had "no right of entry to market the crop" once the lease was signed.[73] Drawing from these facts, the Supreme Court formulated the *Howey* test and applied it to find that the

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[62] HAZEN, *supra* note 59, at 27 (stating that "investment contract" has historically been a "catch-all term").

[63] SEC v. W.J. Howey Co., 328 U.S. 293, 298 (1946) (quoting State v. Gopher Tire & Rubber Co., 146 Minn. 52, 56 (1920)).

[64] *Howey,* 328 U.S. at 300.

[65] SEC v. Edwards, 540 U.S. 389, 397 (2004).

[66] SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476, 482 (9th Cir. 1973).

[67] *Howey*, 328 U.S. at 293.

[68] *See id.* at 298.

[69] *Id.* at 294–95.

[70] *Id.* at 295.

[71] *Id.* at 296.

[72] *Id.* at 295.

[73] *Id.* at 296.

arrangements in this case constituted investment contracts. The test articulates that a transaction qualifies as an investment contract if: (1) there is an investment of money (2) in a common enterprise (3) with an expectation of profits (4) derived primarily from the efforts of someone other than the investor.[74]

Over the years, the *Howey* test has become the standard for determining the existence of an investment contract under the 1933 Act.[75] While the SEC has placed its crypto regulation focus on initial coin offerings, it has not yet addressed the ever-growing cryptomining hosting industry.[76] The *Howey* test will thus be crucial in determining if these hosting contracts can be categorized as "investment contracts" under the 1933 Act.

IV. FROM *HOWEY* TO HASHRATES: THE APPLICATION OF THE *HOWEY* TEST TO HOSTING CONTRACTS

The following Part details how aspects of hosting arrangements may be transposed into each of the elements of the *Howey* test. This Part will not discuss the first element of the test on "investment of money," since it is relatively straightforward and cannot be disputed, regardless of whether the consideration was facilitated through cash payment or cryptocurrency itself.[77] Depending on the outcome of the *Howey* test, hosting contracts could be susceptible to Section 5 violations for offering unregistered securities, a key claim in the SEC's action against Green United.[78]

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[74] *Id.* at 298.

[75] *See* SEC v. Edwards, 540 U.S. 389, 393 (2004) ("The test for whether a particular scheme is an investment contract was established in our decision in *SEC v. W.J Howey Co.*"); *see also* SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476 (9th Cir. 1973); Int'l Bd. Of Teamsters v. Daniel, 439 U.S. 551 (1979).

[76] *See Spotlight on Initial Coin Offerings and Digital Assets,* SEC. & EXCH. COMM'N (Apr. 6, 2023), https://www.sec.gov/spotlight-initial-coin-offerings-and-digital-assets [https://perma.cc/ZE7A-R6P4].

[77] *See* SEC v. Shavers, No. 4:13-CV-416, 2013 WL 4028182, at *2 (E.D. Tex. Aug. 6, 2013) (stating that paying in Bitcoin satisfies the "investment of money" prong of the *Howey* test).

[78] Complaint at 13, SEC v. Green United, No. 2:23-cv-00159 (D. Utah Mar. 3, 2023).

A. Common Enterprise

Among the four elements of the *Howey* test, the common enterprise element is subject to the most disputed interpretation.[79] Generally, the common enterprise prong is an examination of how interwoven the fortunes of the investor are with the success of those seeking the investment or third parties.[80] In *Howey*, the Supreme Court found that a common enterprise existed because the leased citrus groves only gained utility when cultivated and developed as component parts of a larger operation.[81] The allocable share of profits determined by the land sale contracts also supported the idea that the agreements in *Howey* were part of a common enterprise.[82]

However, since *Howey*, there has been a significant circuit split as to the methods of evaluating whether a common enterprise exists. The circuits diverge among three approaches: (1) horizontal commonality, (2) strict vertical commonality, and (3) broad vertical commonality.[83] The following Sections will examine these three approaches and evaluate their impact on the finding of a common enterprise in hosting contracts.

1. Horizontal Commonality

Horizontal commonality requires that contributions of funds from investors be pooled together as a common investment.[84] In other words, horizontal commonality has been characterized as the "pooling of interests usually combined with a pro-rata sharing of profits."[85]

Although the SEC provides evidence indicating that Green United may have used investor funds from the sale of Green Boxes to purchase Bitcoin mining equipment, the specifics regarding how

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[79] *See* HAZEN, *supra* note 59, at 35.
[80] *See Glenn Turner*, 474 F.2d at 482 n.7.
[81] SEC v. W.J. Howey Co., 328 U.S. 293, 300 (1946).
[82] *Id*.
[83] *Compare* Hirk v. Agri-Research Council, Inc., 561 F.2d 96 (7th Cir. 1977) (horizontal commonality), *with* SEC v. Koscot Interplanetary, Inc., 497 F.2d 473 (5th Cir. 1974) (broad vertical commonality), *and* Brodt v. Bache, 595 F.2d 459 (9th Cir. 1978) (strict vertical commonality).
[84] *Hirk*, 561 F.2d at 96.
[85] *Id.*

the "rewards" from the sales were distributed remain ambiguous. It is unclear if the purchase of Green Boxes corresponded to specific mining machines with rewards distributed based on the cryptocurrency mined by each machine, or if all investor funds were aggregated and rewards distributed pro-rata.[86] Even then, courts have found that the test to establish a security is based on the "character the instrument is given in commerce by the terms of the offer" rather than the actual structure of the distribution.[87] Thus, even if Green United's operations turned out to be misleading, if they marketed to clients that their distributions from mining products were specifically attributed to the output of individual machines rather than the collective revenue of the facility, a court could reasonably find that no horizontal commonality exists.

In the hosting industry, Green United's model is extremely atypical, making the argument that horizontal commonality exists in general hosting arrangements even more difficult to establish. Typically, clients looking to mine with hosting facilities purchase individual units linked to specific serial numbers, with the resulting mining revenue being directly attributed and distributed to their crypto wallets from their assigned mining unit, not the hosting company. Therefore, each miner's output and potential rewards are strictly tied to the performance of their designated machines, without any reliance on the collective output of the facility.

For example, within the same facility some miners may operate in distinct mining pools[88] or even mine different cryptocurrencies altogether. There are a variety of mining machines with different mining capabilities, often quantified through their "hashrates."[89] Hashrates are metrics used to quantify a mining rig's amount of

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[86] Complaint at 7, SEC v. Green United, No. 2:23-cv-00159 (D. Utah Mar. 3, 2023).

[87] Audet v. Fraser, 605 F. Supp. 3d 372, 391 (D. Conn. 2022) (quoting SEC v. C.M. Joiner Leasing Corp., 320 U.S. 344, 352–53 (1943)).

[88] For the purposes of this Article, the question of whether the mining pools should be regulated under existing federal securities law will not be addressed. For a more in-depth analysis of this topic, see Benjamin Akins et al., *The Case for the Regulation of Bitcoin Mining as a Security*, 19 VA. J.L. & TECH. 669 (2015).

[89] *See* Onkar Singh, *What is Bitcoin Hash Rate and Why Does it Matter?*, COINTELEGRAPH (Oct. 5, 2023), https://cointelegraph.com/explained/what-is-bitcoin-hash-rate-and-why-does-it-matter [https://perma.cc/9RAM-PZ8E].

processing or computing power. The higher the hashrate capability on a machine, the more powerful and profitable it will be for mining on a particular algorithm.[90] It is the individual hashrate of the machine that will determine the crypto output for a miner, not any collective effort or shared capital between the miners at a particular facility.[91] In other words, there is no horizontal commonality because miners "could make profits or sustain losses independent of the fortunes of other purchasers."[92]

The practice of typical hosting facilities is a much better standard to follow than Green United's model and helps avoid horizontal commonality concerns about resource and interest commingling. In essence, hosting facilities simply offer the necessary power and infrastructure setup for miners, without mingling the mining outputs or profits of the investors using the service. For these reasons, hosting contracts likely fail the horizontal commonality test.

2. Strict Vertical Commonality

Strict vertical commonality requires that the investment manager's success be dependent upon the success of the investor.[93] More specifically, to establish strict vertical commonality, the risk taken by the investor in the venture must be shared by the manager.[94] This concept was highlighted by the Ninth Circuit in *SEC v. Glenn W. Turner Enterprises*,[95] noting that "[a] common enterprise is one in which the fortunes of the investor are interwoven with and

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[90] *Id.*

[91] The exception here may be if investors are engaged in what is referred to as "cloud mining," where individuals participate in mining by leasing mining power from a remote data center rather than purchasing and owning the mining equipment. Investors share units and pool capital to engage in the mining activity. For an examination on the securities implications of cloud mining, see Darren J. Sandler, *Citrus Groves in the Cloud: Is Cryptocurrency Cloud Mining a Security*, 34 SANTA CLARA HIGH TECH. L.J. 250 (2018). *But see* Audet v. Fraser, 605 F. Supp. 3d 372, 390–91 (D. Conn. 2022) (district court refusing to apply horizontal commonality to cloud mining because clients could choose their own mining pools).

[92] Revak v. SEC Realty Corp., 18 F.3d 81, 88 (2d Cir. 1994).

[93] SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476, 482 n.7 (9th Cir. 1973).

[94] *See* Brodt v. Bache & Co., Inc., 595 F.2d 459, 462 (9th Cir. 1978).

[95] SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476 (9th Cir. 1973).

dependent upon the efforts and success of those seeking the investment[.]"[96] To clarify strict vertical commonality, imagine a situation similar to a small business owner and an investor in the business. The investor's return is directly linked to the success of the business owner's efforts; if the business flourishes, both the investor and business owner profit, and if it fails, they both lose. This mutual risk is the essence of strict vertical commonality: The investor and manager's financial fates are tied to the performance of the manager's enterprise.

In the context of hosting contracts, the hosting facility acts as the "investment manager," and the miner is positioned as the "investor." However, to examine the relationship and shared risk between the investment managers and the investors, it is first crucial to understand the way hosting facilities structure payments with their clients.

The industry standard for hosting facilities is to charge clients by their electrical consumption per kilowatt-hour ("kWh"), in what is referred to as an "all-in" rate.[97] Included in this rate are the electrical and maintenance costs of running each machine, including the facility's profit mark-up.[98] For instance, if a hosting facility has a cost basis of $0.04 per kWh for electricity at their facility, they may charge their clients $0.09 per kWh to power their mining rigs.[99] Under this structure, the hosting facility is charging a fixed and contractually bound rate, regardless of the success of the individual

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[96] *Id.* at 482 n.7.

[97] *E.g.*, *Bitcoin Mining Hosting,* QUOTECOLO, https://www.quotecolo.com/bitcoin-miner-hosting/ [https://perma.cc/ULS7-66SH] (last visited Mar. 15, 2024) ("Our North American facilities offer renewable and low-cost 'all in' power from 6 to 8 cents kWh (USD) based on volume. All-in pricing includes rack space, power, internet, ventilation, and general maintenance/security.").

[98] An "all-in" electricity rate in the context of hosting facilities refers to a comprehensive charging model that includes not only the baseline cost of electricity used to power the mining rigs but also encompasses the operating costs such as maintenance, cooling, and other overheads associated with running the machines. This rate often embeds a profit margin for the hosting facility.

[99] This would still be more profitable than mining at the $0.17 per kWh residential rate. *See Average Energy Prices for the United States, Regions, Census Divisions, and Selected Metropolitan Areas*, *supra* note 45.

miner. The facility will receive a fixed fee, unaltered by the individual miner's profits or losses.

While in theory, a hosting facility could decide to tie its fees to a percentage of the investor's mined crypto yield, such an arrangement is highly unlikely because it exposes the facility to far too much liability.[100] Even in the case of Green United, where the promoter held custody of the crypto before distribution, it is not suggested that the company received compensation through a share of mining proceeds.[101] The vast majority of hosting facilities will therefore not meet the standard of a common enterprise under strict vertical commonality, as their success is not dependent upon the success of individual investors.

3. Broad Vertical Commonality

A broad approach to vertical commonality requires that the investor depend heavily upon the level of skill or knowledge of the promoter and her dependence upon the promoter in making the investment.[102] The difference between strict and broad vertical commonality is that the strict approach requires the fortunes of the investor to be tied to the *fortunes* of the promoter, while the broad approach requires that the fortunes of the investor be linked merely to the *efforts* of the promoter.[103]

It is in the broad vertical category that a finding of a common enterprise is more likely to occur regarding hosting contracts. Unlike strict vertical commonality, where the relationship between an individual miner and the facility is pivotal, broad vertical commonality focuses on the bigger picture. Even if some miners are

[100] Basing hosting fees in an industry with such unpredictable profitability poses substantial risks for facilities, especially when they typically are bound to long-term agreements with energy providers. Additionally, given that mining rigs are designed to mine into a singular crypto wallet, monitoring the profitability of each investor's rig and adjusting their bills would be both a logistical nightmare and a huge potential liability.

[101] Complaint at 7, SEC v. Green United, No. 2:23-cv-00159 (D. Utah Mar. 3, 2023).

[102] *See* SEC v. Koscot Interplanetary, Inc., 497 F.2d 473, 478 (5th Cir. 1974).

[103] Revak v. SEC Realty Corp., 18 F.3d 81, 87–88 (2d Cir. 1994).

unsuccessful while others thrive, broad vertical commonality is concerned with the overall trend or collective success of the miners.

Given that the hosting fees are more likely to be fixed, the immediate financial success of the hosting facility seems decoupled from the mining success of any individual client or group. Yet even when the hosting facility receives its fixed fee irrespective of individual mining outcomes, there may still be an argument for a viable relationship between the growth of the facility and the aggregate success of its client base. For instance, if a majority of miners consistently fail to turn a profit, they might eventually cease operations and leave the hosting facility, affecting its longer-term revenue and sustainability.

However, extending broad vertical commonality to the circumstances of hosting contracts is erroneously expansive. By virtue of this argument, the vast majority of commercial leaseback and leasehold agreements could ostensibly meet the criteria for broad vertical commonality, given they depend on the ability of tenants to generate profits beyond their rental costs.[104] Nonetheless, courts ordinarily reject leasing programs as securities on the grounds that such arrangements lack a common enterprise.[105] Overextending this definition would be contrary to the intentions of the 1933 Act and would fail to safeguard the transactions it was designed to protect.

This is why hosting contracts should be more accurately characterized as service agreements, where one party is simply paying for the services rendered by another. Applying broad vertical commonality to this transaction is tantamount to claiming that a commercial landlord is inadvertently offering a security to a tenant, relying on the tenant's business revenue to exceed the rental costs for the investment to succeed.

Thus, when hosting fees are based on a fixed rate, the immediate financial relationship between the hosting facility and its clients does not align with the establishment of broad vertical commonality

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[104] Of course, it is likely that these commercial lease agreements would also fail the "own efforts" prong, but here the focus is just on the common enterprise element.

[105] HAZEN, *supra* note 57, § 1:56.

in the classical sense. As a whole, the common enterprise prong is not substantiated in the context of hosting contracts, even when taking into account each separate interpretation of this element.

B. Expectation of Profits

The "expectation of profits" prong of the *Howey* test is crucial in determining whether a transaction qualifies as an investment contract.[106] This element primarily focuses on whether the investor is motivated by a desire to earn profits, potentially in the form of dividends, fixed income, or appreciation.[107] Expectation of profits is derived from the successful management and investment of assets.[108]

The Supreme Court further clarified this element in *United Housing Foundation v. Forman.*[109] In *Forman,* the Court found that an initial investment or a participation in earnings from the use of investors' funds is a security.[110] However, when a purchaser is motivated to purchase the stock by a desire to use or consume the item, it is not a security.[111] Thus, it is important to distinguish if an individual enters a hosting contract primarily with the expectation of earning profits in the form of mining yield or if the purchaser's motivation is primarily to use or consume the service (i.e., to access the optimal infrastructure for cryptomining).

While it may seem intuitive that a miner enters the cryptomining space to generate a profit, there are many other factors that might lead a miner to enter a hosting contract. For example, mining rigs produce an extraordinary amount of heat and noise.[112] Miners may not want to deal with the headache of managing such nuisances. It

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[106] SEC v. W.J. Howey Co., 328 U.S. 293, 298 (1946).

[107] HAZEN, *supra* note 57, § 1:53 ("The expectation of a profit is not limited to participation in the proceeds of a business or enterprise.").

[108] SEC v. Edwards, 540 U.S. 389, 395–96 (2004).

[109] United Hous. Found., Inc. v. Forman, 421 U.S. 837 (1975).

[110] *Id.* at 852.

[111] *Id.* at 852–53.

[112] *See The Ultimate Guide to Silent, Energy-Efficient Bitcoin Mining: Transforming Your ASIC Miner into a Carbon-Neutral Heater*, D-CENTRAL TECH. (July 19, 2023), https://d-central.tech/the-ultimate-guide-to-silent-energy-efficient-bitcoin-mining-transforming-your-asic-miner-into-a-carbon-neutral-heater/ [https://perma.cc/2UHH-9B95].

is completely plausible that a miner may opt into signing a hosting contract with a higher all-in cost than mining at home merely to avoid the operational challenges and inconveniences associated with managing the mining hardware directly, such as dealing with heat dissipation, noise mitigation, and equipment maintenance. This underscores the notion that the motivations for engaging in hosting contracts can be diverse and are not solely confined to profit expectations.

Additionally, the Supreme Court has stated that a transaction does not come into the purview of an investment contract when the possibility of participating in earnings "is far too speculative and insubstantial."[113] As of September 2023, only forty out of the one hundred most powerful and profitable mining machines actually produced profit after accounting for electrical costs.[114] Further, of those forty profitable machines, more than half were running on a marginal profit of less than $1 per day.[115] Given that these machines can cost thousands of dollars,[116] it almost seems that mining itself would prove to be an inefficient investment if the sole motive is the daily profit from mining revenue.

To potentially explain this discrepancy beyond the daily profit, one must consider that a significant motive for miners might be the allure and potential value of accumulating "virgin crypto," which is perceived to have a premium due to its pristine and untraceable nature.[117] As mentioned earlier, for many cryptocurrencies, mining

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[113] *Forman*, 421 U.S. at 856.

[114] *ASIC Miner Profitability Ranking*, WHATTOMINE, https://whattomine.com/miners [https://perma.cc/RL39-73BJ] (last visited Oct. 2, 2023).

[115] *Id.* Profitability calculated at the industry standard power rate of $0.10 per kWh.

[116] ASIC PRICES, https://www.asicprices.com/ [https://perma.cc/DKZ3-DPHA] (last visited Oct. 2, 2023).

[117] *See* Shiraz Jagati, *Virgin Bitcoin — Most In-Demand Crypto that is Regulated Differently?*, COINTELEGRAPH (July 20, 2019), https://cointelegraph.com/news/virgin-bitcoin-most-in-demand-crypto-that-is-regulated-differently [https://perma.cc/R8QF-NHL3]; *see also* Jamie Redman, *Industry Execs Claim Freshly Minted 'Virgin Bitcoins' Fetch 20% Premium*, BITCOIN.COM (Mar. 8, 2020), https://news.bitcoin.com/industry-execs-freshly-minted-virgin-bitcoins/ [https://perma.cc/FX25-7JZN] ("According to industry

is the sole method of introducing new supply into circulation; thus, virgin crypto is a term used to describe newly mined cryptocurrencies that have not been spent, used, or tainted by any traceable transaction.[118] Miners often perceive this crypto as more valuable due to its untainted provenance or due to a personal or ideological alignment with the decentralization ethos of cryptocurrency.[119]

This emphasis on the ideological value of virgin crypto espoused by crypto enthusiasts and Bitcoin maximalists could possibly be interpreted by the courts as speculative and insubstantial due to the lack of a guaranteed market value and the subjective, and often ideologically driven, perceived value of such assets.[120] Furthermore, cryptocurrency's dual nature as both an asset and a commodity that can be spent makes the valuation of mined crypto an even more complex issue when determining miner motives. The Supreme Court has previously held that there is no "reasonable expectation of profits" where "a purchaser is motivated by a desire to use or consume the item purchased."[121]

Interestingly, when compared to standard hosting operations, Green United's defense against being classified as a security seems less persuasive concerning the "common enterprise" prong; yet, their argument gains traction when assessing the "expectation of profits" criterion. The company has a plausible argument that the primary incentive behind investing in Green Boxes and Nodes was the support of an eco-conscious blockchain initiative rather than the pursuit of profit. The language on the Green United website explicitly states that "[t]he GREEN Digital Reward is not an investment product and may never have any value outside of the

executives, freshly minted bitcoins with no transaction history can sell for a 10-20% premium compared to coins sold on the open market.").

[118] All crypto transactions are openly traceable on the blockchain. *See* Nakamoto, *supra* note 22, at 2.

[119] *See* Jagati, *supra* note 117.

[120] *Compare* Redman, *supra* note 117 (claiming that cryptominers can secure premiums for virgin bitcoin), *with* Nic Carter, *The Virgin Bitcoin Fallacy*, COINDESK (May 8, 2023), https://www.coindesk.com/business/2021/05/11/the-virgin-bitcoin-fallacy/ [https://perma.cc/474P-CPSZ] (claiming that no such premium exists).

[121] United Hous. Found., Inc. v. Forman, 421 U.S. 837, 852–53 (1975).

Green Ecosystem. Green Node Owners should not expect to recognize any value from the GREEN Digital Reward other than its utility within the Green Ecosystem."[122] Such a perspective reinforces the idea that the intrinsic value of GREEN tokens is rooted in their use and significance within the ecosystem rather than their profit potential.

However, as established in *SEC v. Aqua-Sonic Products*,[123] courts delve beyond plausible motives or options behind an investment, focusing instead on the "economic reality" and "totality of the circumstances" that influence a typical investor's decision.[124] In other words, the court in *Green United* will likely not simply accept the defendant's stated purpose behind marketing the products, but will also attempt to discern the actual underlying reasons why the average investor might be drawn to purchase Green Boxes and Nodes. This requires a factual analysis, yet Green United's narrative gains some credibility from their claim that refunds were offered to any dissatisfied customers after their products became unprofitable.[125] Given that only a small fraction of node owners sought refunds and the vast majority chose to remain engaged with the GREEN project, it suggests that many investors may have been primarily driven by a desire to support the GREEN initiative rather than by the prospect of financial gain.[126]

The complex landscape of cryptomining challenges the assumption that hosting contracts meet the expectation of profits element of the *Howey* test, not only in the *Green United* case, but in the context of hosting contracts in general. In the absence of a concrete and universally accepted valuation mechanism, the various motivations behind an investor signing a hosting agreement are too uncertain and theoretical to form the basis of an investment contract.

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[122] GREEN UNITED, *supra* note 1.

[123] SEC v. Aqua-Sonic Prods., 687 F.2d 577 (1982).

[124] *Id.* at 584.

[125] *SEC Update*, GREEN UNITED, https://setpowerfree.com/sec-update/ [https://perma.cc/QQ9D-6RES] (last visited Mar. 1, 2024).

[126] *Id.*

C. Efforts of Others

The final requirement of the *Howey* test is that the potential profits are "solely [derived] from the efforts of others."[127] Thus, the defining characteristic of an investment contract is that the transaction in question is generally a passive investment.[128]

The Ninth Circuit had the opportunity to address the effective meaning of "solely" in the landmark *SEC v. Glenn W. Turner Enterprises* case.[129] In this case, the court found that the word "solely" "should not be read as a strict or literal interpretation . . . but rather must be construed realistically."[130] The more realistic test was "whether the efforts made by those other than the investor are the undeniably significant ones, those essential managerial efforts which affect the failure or success of the enterprise."[131]

Here, again, the distinction between Green United's approach and the operations of a typical hosting facility comes to light. Green United advertised their products as a fully hands-off investment for the buyer, with no involvement in the mining process[132]—contributing to why it took so long for investors to realize that GREEN was unminable and that the blockchain was nonexistent at the time. In contrast, a deeper examination of the structure and terms of industry-standard hosting arrangements illustrates that the investor often plays a more hands-on role in the direct mining operations. For instance, while it is typically the hosting facility's duty to physically maintain the mining rigs, many facilities require clients to bear the responsibility of reporting any suspicious mining rig downtime, which can occur on a daily basis.[133] This is facilitated as each mining rig can be monitored remotely, allowing for real-time

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[127] SEC v. W.J. Howey Co., 328 U.S. 293, 301 (1946).

[128] HAZEN, *supra* note 59, at 49.

[129] SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476 (9th Cir. 1973).

[130] *Id.* at 482.

[131] *Id.*

[132] Complaint at 26, SEC v. Green United, No. 2:23-cv-00159 (D. Utah Mar. 3, 2023).

[133] In the context of mining, "downtime" refers to periods when the machine is switched off, even though, ideally, they should be operating continuously, 24/7.

oversight.[134] This collaborative monitoring relationship between the investor and the manager helps maintain optimal operational balance and places significant responsibility on the individual miner, emphasizing the active engagement of the investor in the ongoing management and success of the mining operations.[135]

Other essential managerial tasks of the investor include determining which crypto to mine and selecting the appropriate mining pool. The onus is on the owner of the mining rig to instruct the facility on how to allocate the hashpower of the mining rigs. Consequently, even identical machines within the same hosting facility can produce diverse mining outputs and profitability levels based on the strategic choices made by the investor. When the investor anticipates that a new coin or pool may yield higher profits, it becomes her duty to notify and instruct the hosting facility to reconfigure her mining rigs accordingly.[136] These decisions, often derived from meticulous analysis and strategic foresight, can significantly influence the investor's revenue and profit trajectories from mining. This underlines the proactive and substantial role played by the investor in the hosting process.

Here, again, the result is dependent on a case-by-case factual inquiry that ties back into the economic reality articulated in *Aqua-Sonics*. It is not sufficient that investor control was merely an option, the true inquiry is whether there was a "reasonable expectation . . . of significant investor control."[137] A key feature among hosting firms is the provision for clients to monitor their own individual machines in real-time, with the expectation that clients are responsible for reporting downtime. This degree of engagement "leav[es] less room for either overcommitment or deception."[138] A

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[134] *See, e.g.*, *Hosting Facilities*, MINERSET, https://minerset.com/hosting/ [https://perma.cc/E2LL-ZWMJ] (last visited Oct. 2, 2023).

[135] *See What is Hosted Mining?*, RIVER, https://river.com/learn/what-is-hosted-mining/ [https://perma.cc/MQR4-XZYK] (last visited Oct. 2, 2023).

[136] Depending on the mining operating system used, an investor may even be able to change this directly herself.

[137] SEC v. Aqua-Sonic Prods., 687 F.2d 577, 585 (1982).

[138] David Z. Morris, *How Bitcoin Miners Can Stay Clear of SEC Scrutiny (and Fall Foul of It)*, COINDESK (July 25, 2023), https://www.coindesk.com/consensus-magazine/2023/07/25/how-bitcoin-miners-can-stay-clear-of-sec-scrutiny-and-fall-foul-of-it/ [https://perma.cc/GQH4-ARMG].

customer actively involved in monitoring and reporting on the status of their equipment may not fit the profile of "the passive investor for whose benefit the securities laws were enacted."[139]

Thus, on a case-by-case basis, the final element of the *Howey* test—depending on the investor's actual level of control and involvement—could potentially be unsubstantiated.

V. RETHINKING REGULATION: THE PATH FORWARD FOR HOSTING CONTRACTS

While clear-cut criteria for defining service agreements are less established than those for investment contracts, there is a history of legal scrutiny to distinguish services from securities. It is essential to navigate these waters carefully, as overreaching securities regulation could have undesirable impacts on economic, technological, and environmental progress. However, this cautious approach does not suggest leaving investors unprotected in the volatile domain of cryptomining. A range of legal measures, both public and private, are available to combat deception and fraud, ensuring a safer environment for participants in this dynamic field.

A. Regulatory Ripple Effects: The Consequences of Misapplied Regulations

From an economic perspective, at this stage of cryptocurrency's development, imposing securities regulation on cryptomining—the backbone of blockchain network security—could significantly impede both technological innovation and economic growth. Pawel Kuskowski, CEO of Coinfirm, has drawn a parallel with the potential impact of premature regulation:

> Imagine if GDPR had been introduced in America in the early 1990s. Would the internet we know today have ever taken off? Or would the interminable barrage of click-and-consent forms we are about to face here in Europe have stymied the creation and growth of the tech titans that have improved our social lives, brought us a myriad of products and services[,] and placed the sum of human knowledge at our fingertips?[140]

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[139] *Aqua-Sonic Products*, 687 F.2d at 585.

[140] Pawel Kuskowski, *Why Regulating Cryptocurrencies as Securities Would Stifle Growth*, FORBES (Aug. 1, 2018), https://www.forbes.com/sites/pawelkusko

Humanity still has not unlocked the full potential of cryptocurrency and blockchain, which promises to revolutionize financial systems and empower individual ownership. Any rash regulatory approaches may simply kill the market and erode investor confidence. The notoriously complex, time-consuming, and cost-prohibitive process associated with SEC registration and mandatory periodic disclosures could discourage innovation and deter new entrants.[141] For example, forcing stringent SEC disclosures may compel hosting firms to exit the market rather than comply with the disclosure mandates.[142]

New securities regulations and obstacles targeting cryptomining firms may regress us to the days of unsustainable global mining practices, which can have disastrous environmental—and even political—consequences. A lesson on the consequences of regulatory restrictions on hosted mining can be taken from China's crackdown on cryptocurrency in 2021, which included an outright cryptocurrency mining ban.[143] The prohibition triggered a mass exodus of miners to nations with even less available renewable energy capacities, like nearby coal-dominated Kazakhstan.[144] This not only spiked fossil fuel consumption,[145] but also completely overwhelmed Kazakhstan's electrical grid.[146] The country's electrical infrastructure was ill-equipped to handle the sudden influx of mining operations, resulting in widespread power outages across

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wski/2018/08/01/why-regulating-cryptocurrencies-as-securities-would-stifle-growth/?sh=344105f6242b [https://perma.cc/BL4F-7QTQ].

[141] *See* HAZEN, *supra* note 59, at 104–12.

[142] *See* Paul G. Mahoney, *The Economics of Securities Regulation*, FINREG BLOG (Oct. 14, 2021), https://sites.duke.edu/thefinregblog/2021/10/14/the-economics-of-securities-regulation/ [https://perma.cc/K8MJ-TRRS].

[143] Hiroko Tabuchi, *China Banished Cryptocurrencies. Now, 'Mining' is Even Dirtier*., N.Y. TIMES (Feb. 25, 2022), https://www.nytimes.com/2022/02/25/climate/bitcoin-china-energy-pollution.html [https://perma.cc/L557-XGJW].

[144] *Id.*

[145] *Id.* ("[T]he Bitcoin network's use of renewable energy sources like wind, solar or hydropower dropped from an average of 42 percent in 2020 to 25 percent in August 2021.").

[146] Gian M. Volpicelli, *As Kazakhstan Descends Into Chaos, Crypto Miners Are at a Loss*, WIRED (Jan. 12, 2022, 7:00 AM), https://www.wired.com/story/kazakhstan-cryptocurrency-mining-unrest-energy/ [https://perma.cc/52UU-DPMY].

the country and further contributing to the severe civil unrest that unfolded in 2022.[147]

In contrast, American power grids are far more stable and regulated, providing a secure foundation for miners' energy demands.[148] Recognizing the valid environmental concern and criticism towards the intensive energy consumption of cryptomining, U.S.-based hosting facilities have increasingly adopted environmentally sustainable practices (evidenced in the branding and marketing approach of "Green" United).[149] These hosting facilities have continued to drive the national demand for wind and solar energy, thus "improving the revenue for renewable generation and preventing taxpayers from subsidizing the generation of energy."[150]

When operated properly, these hosting firms' networks can play a symbiotic role in building cities' electrical grids and infrastructure, enhancing their overall capacity and resilience.[151] For example, during Winter Storm Uri that devastated Texas in 2021, hosting facilities were able to redirect the surplus power capacity that was developed as a result of their demand back to their cities to aid in

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[147] *See id.*

[148] *See* Severin Borenstein, *Crypto Mining for a More Stable Grid?*, HAAS ENERGY INST. BLOG (Mar. 21, 2022), https://energyathaas.wordpress.com/2022/03/21/crypto-mining-for-a-more-stable-grid/ [https://perma.cc/JHB5-WD9U].

[149] Susie Violet Ward, *Bitcoin Mining Catalyzes Growth in Renewable Energy and Infrastructure*, FORBES (Oct. 18, 2023), https://www.forbes.com/sites/digital-assets/2023/10/18/bitcoin-mining-catalyzes-growth-in-renewable-energy-and-infrastructure/?sh=241eafaf52ab [https://perma.cc/47UM-2YM4].

[150] Dennis Porter, *Bitcoin Mining Is Good for the Energy Grid and Good for the Environment*, COINDESK (Mar. 6, 2023), https://www.coindesk.com/consensus-magazine/2023/03/06/bitcoin-mining-is-good-for-the-energy-grid-and-good-for-the-environment/ [https://perma.cc/LPN7-VVDW]; *see also* Jayson Browder, *Bitcoin Mining is Energizing Sustainability Through Green Innovation*, THE HILL (Nov. 18, 2023), https://thehill.com/opinion/energy-environment/4315048-bitcoin-mining-is-energizing-sustainability-through-green-innovation [https://perma.cc/6WH4-XXKK].

[151] *See* Mike Hobart, *How Bitcoin Mining Strengthens Electricity Grids*, BITCOIN MAG. (Mar. 12, 2022), https://bitcoinmagazine.com/culture/how-bitcoin-mining-strengthens-electricity-grids [https://perma.cc/2MB4-XXLE].

critical support efforts.[152] Overregulation and the ensuing restrictions and increases in costs could inadvertently prompt a migration away from these American hosting facilities, undermining the strides made towards more efficient, accessible, and environmentally considerate cryptomining practices.

It serves the interests of both global crypto networks and the U.S. to incentivize miners to remain within America. China's crackdown on crypto has catalyzed a significant opportunity for the U.S. to attract miners from China—a country that once dominated nearly two-thirds of the global mining hashrate.[153] Retaining control in stable North American markets means that no single country with authoritarian tendencies or totalitarian control of the domestic economy, like China, can become a single point of failure for the cryptomining sector.[154] This is particularly important because decentralizing the network mitigates the threat of a "51% attack."[155] A 51% attack is when a single entity may cause major network disruption because they control the majority of the global mining capacity.[156] In such a scenario, the attacker would have enough mining power to intentionally exclude or modify the ordering of

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[152] Audrey Carleton, *Texas Bitcoin Miners Shutting Down to Help Power Grid Survive Winter Storm*, VICE (Feb. 4, 2022, 9:00 AM), https://www.vice.com/en/article/qjbwb5/texas-bitcoin-miners-shutting-down-to-help-power-grid-survive-winter-storm [https://perma.cc/PG5Z-F4ZC].

[153] Nic Carter, *Go West, Bitcoin! Unpacking the Great Hashrate Migration*, COINDESK (Dec. 11, 2022, 2:27 PM), https://www.coindesk.com/policy/2021/06/22/go-west-bitcoin-unpacking-the-great-hashrate-migration/ [https://perma.cc/6DEU-H7N4] ("[In] April 2020, an estimated 65% of bitcoin hashrate was domiciled in China.").

[154] *Tracking Electricity Consumption from U.S. Cryptocurrency Mining Operations*, U.S. ENERGY INFO. ADMIN. (Feb. 1, 2024), https://www.eia.gov/todayinenergy/detail.php?id=61364# [https://perma.cc/UZY3-69V4] ("The CBECI estimates that the global share of Bitcoin mining occurring in the United States rose from 3.4% in January 2020 to 37.8% in January 2022, the last month for which published estimates are available.").

[155] *China Dominates Bitcoin Mining: Why that Needs To Change!*, ARGO, https://argoblockchain.com/articles/read-more-china-dominates-bitcoin-mining-heres-why-that-needs-to-change [https://perma.cc/5JSW-AVL6] (last visited Apr. 8, 2024).

[156] *What Is a 51% Attack?*, BINANCE ACADEMY (Apr. 20, 2023), https://academy.binance.com/en/articles/what-is-a-51-percent-attack [https://perma.cc/ZGN7-6NDT].

transactions, reverse transactions, prevent transactions from being confirmed, and halt other miners from mining.[157] This is perhaps the single largest threat of centralization to the $2.6 trillion in global crypto assets.[158]

Furthermore, if subjected to securities regulations, hosting facilities might seek refuge in certain regulatory exemptions under the 1933 Act to sidestep SEC registration and oversight. Especially with the entry of large corporations into the mining sector,[159] these firms could turn to exemptions by offering their services exclusively to those who qualify as "accredited investors."[160] Under Rule 506(b) of Regulation D, issuers can avoid the registration process if all investors in their offering are accredited investors, which are individuals or entities meeting specific high income or net worth criteria.[161]

While on the surface this appears to shield general investors by catering only to financially sophisticated individuals, this strategy could inadvertently exclude retail investors, leading to a concentration of cryptomining power and benefits among the affluent few. Such a trend would be antithetical to the very decentralization ethos inherent to cryptomining and which is instrumental to maintaining a secure and trusted validation process.[162] This is particularly relevant given the already growing

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[157] *Id.*

[158] *Cryptocurrency Prices Today by Market Cap*, FORBES, https://www.forbes.com/digital-assets/crypto-prices/?sh=7a3a149c2478 [https://perma.cc/53P7-W4YW] (last visited Mar. 16, 2024) (showing that as of Mar. 16, 2024, the global cryptocurrency market cap was 2.66 trillion.).

[159] *See, e.g.*, Gamza Khanzadaev, *BlackRock Heavily Invested in Bitcoin Mining, Top Analyst Confirms*, U.TODAY (Sept. 26, 2023), https://u.today/blackrock-heavily-invested-in-bitcoin-btc-mining-top-analyst-confirms [https://perma.cc/XBC9-GARR].

[160] 17 C.F.R. § 230.506(b) (2023).

[161] *Id.* (exempting certain offerings from SEC registration requirements provided there is no general solicitation and sales are predominantly to accredited investors); *id.* § 230.501(a) (2023) (defining "accredited investors" as individuals or entities that meet certain financial thresholds or possess a defined level of financial sophistication).

[162] *See generally* Nakamoto, *supra* note 22 (explaining the decentralization and transparency motives behind cryptocurrency).

concerns over the centralization of Bitcoin mining.[163] Due to cryptomining's location-agnostic nature, these regulations and responses may prompt retail clients to move to hosting in even less regulated and protected foreign markets, where cloud mining scams are infamous.[164] Thus, while seeking to safeguard investors, such regulations may paradoxically lead to the very risks they aim to mitigate.

B. Hosting Contracts: Not Securities, But Services

Securities law does not specifically articulate a definition of "service agreement" or "service contract," and these terms typically lack a statutory or common law definition in most states. Nevertheless, definitions from federal statutes and regulations outside of securities law can shed light on the ordinary interpretation of the concept. For instance, the Magnuson-Moss Warranty Act characterizes a service contract as "a contract in writing to perform, over a fixed period of time or for a specified duration, services relating to the maintenance or repair (or both) of a consumer product."[165] Similarly, the Federal Acquisition Regulation ("FAR") describes a service contract as one that "directly engages the time and effort of a contractor whose primary purpose is to perform an identifiable task rather than to furnish an end item of supply."[166] The FAR specifically recognizes service contracts in contexts such as the repair, servicing, or modification of equipment, as well as the routine, recurring maintenance of property.[167]

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[163] *See generally* Nathan Reiff, *Why Centralized Cryptocurrency Mining Is a Growing Problem*, INVESTOPEDIA (Oct. 28, 2021), https://www.investopedia.com/investing/why-centralized-crypto-mining-growing-problem/ [https://perma.cc/2QB3-HNKD] (explaining the risks to network security that can occur when the majority of hashpower is controlled by one group).

[164] *E.g.*, Mercy Tukiya Mutanya, *Kazakhstan Investigating 'Pyramid Scheme' Masquerading as Crypto Mining Hotel*, COINSPEAKER (Aug. 10, 2022), https://www.coinspeaker.com/kazakhstan-crypto-mining-hotel/ [https://perma.cc/M9XN-A64U].

[165] Magnuson-Moss Warranty Act § 101(8), 15 USC § 2301(8).

[166] FAR 37.101 (2023).

[167] *Id.*

In comparing these definitions with the *Howey* analysis, it becomes evident that hosting contracts align more closely with traditional service agreements than with investment contracts. The primary purpose of clients engaged in these conventional hosting agreements is to acquire services, namely access to well-maintained leasing spaces, as well as industrial power and cooling. Any payment made to these facilities is in exchange for the services provided in the contract, not for a product marketed for investment purposes.[168] Therefore, the relationship between the miner and the hosting facility is more aptly characterized as that of client-service provider, rather than that of investor-issuer.

The most comparable service here is that of a commercial leasing agreement, where one simply pays for the space and utilities provided by a landlord. These arrangements are quintessential service agreements, even when the primary purpose is to generate a profit.[169] Even if the maintenance and installation services in hosting contracts are taken one step further and analogized to property management agreements, courts have consistently ruled that contracts with vendors for the management of property constitute standard service agreements when significant investor control still exists.[170]

Some Circuits, notably the Eighth and Tenth Circuits, have had particularly liberal interpretations of "investor control" for the purposes of distinguishing between service agreements and investment contracts.[171] For instance, in *Schultz v. Dain*

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[168] *See* HAZEN, *supra* note 57, § 1:61.

[169] *Id.* § 1:56 ("Ordinarily, leasehold interests and sale-leaseback arrangements are not securities.").

[170] *See, e.g.*, Williamson v. Tucker, 645 F.2d 404 (5th Cir. 1981), *cert. denied*, 454 U.S. 897 (citing Fargo Partners v. Dain Corp., 540 F.2d 912 (8th Cir. 1976)) ("So long as the investor retains ultimate control, he has the power over the investment and the access to information about it which is necessary to protect against any unwilling dependence on the manager. It is not enough, therefore, that partners in fact rely on others for the management of their investment; [it] can be an investment contract only when the partners are so dependent on a particular manager that they cannot replace him or otherwise exercise ultimate control.").

[171] *See, e.g.*, Mr. Steak, Inc. v. River City Steak, Inc., 460 F.2d 666 (10th Cir. 1972); Schultz v. Dain Corp., 568 F.2d 612 (8th Cir. 1978).

Corporation,[172] the Eighth Circuit determined that a non-revocable three-year management contract did not constitute an investment contract because it allowed the purchaser to delegate management responsibilities temporarily, with the option to seek new arrangements thereafter.[173] The "ultimate control" was therefore retained by the purchaser, who had acquired a standard service rather than a security.[174] This principle is relevant to the hosting of mining equipment, where contracts are generally for a limited duration and do not restrict miners from moving their equipment to a different facility or their own home once the lease concludes.

In determining whether an arrangement should be construed as a service agreement or an investment contract, it is the "substance [that] governs, not name or label or form."[175] Thus, whether hosting contracts or mining equipment sales are colloquially referred to by miners as "investments" is secondary to the substance and structure of their arrangements. The pattern of characteristics in the overwhelming majority of these arrangements—such as limited hosting duration, mining pool direction control, and monitoring measures—suggest that they align more with service agreements, consistent with broader legal interpretations. While not collectively ruling out their classification as investment contracts in every case, this Article asserts that such contracts should predominantly be regarded as service agreements.

C. Let Green Go? The Securities Alternatives

This conclusion does not mean that hosting facilities should be left unchecked. Neither does it mean to imply that Green United should be exempt from any type of scrutiny. Alternative legal avenues exist to address fraud and misconduct outside of securities

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[172] Schultz v. Dain Corp., 568 F.2d 612 (8th Cir. 1978).

[173] *Id.* at 615.

[174] *Id.*

[175] Salameh v. Tarsadia Hotel, 726 F.3d 1124, 1130 (9th Cir. 2013) (citing United Hous. Found., Inc. v. Forman, 421 U.S. 837 (1975)). To quote Shakespeare, "[T]hat which we call a rose, [b]y any other name would smell as sweet." WILLIAM SHAKESPEARE, ROMEO AND JULIET act 2, sc. 2, l. 43–44.

law.[176] For example, common law fraud, acknowledged in virtually every state, does not necessitate proving the involvement of a security in the claim.[177] In jurisdictions like Utah, the location where the *Green United* suit was brought, such actions permit private claims to collect compensatory and punitive damages.[178] These non-securities claims provide a straightforward and fair path for relief, given they are based on clear and established principles of deceit and misrepresentation, in contrast to the often-complex implications in federal securities fraud claims, like those under Rule 10b-5.[179]

Further, federal statutes may also be brought forth for schemes outside the scope of securities law. The Racketeer Influenced and Corrupt Organizations Act (commonly known as "RICO") has previously been used to provide treble damage remedies for persons injured in their business or property as a result of racketeering activities that involve fraudulent transactions.[180] Furthermore, federal mail and wire fraud statutes may be applicable even without the involvement of a security.[181] While these laws do not offer private remedies, they can lead to serious criminal prosecution.[182]

Thus, if the primary goal in suits like *Green United* is to safeguard investors from fraudulent cryptomining schemes, redress

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[176] *See, e.g.*, Federal Trade Commission Act § 5(a), 15 U.S.C. § 45(a) (prohibiting "unfair or deceptive acts or practices in or affecting commerce"); UTAH CODE ANN. § 13-11-4 (2024) (prohibiting "deceptive act[s] or practice[s] by a supplier in connection with a consumer transaction").

[177] *See, e.g.*, *Salameh v. Tarsadia Hotel*, 726 F.3d at 1124.

[178] Diversified Holdings, L.C. v. Turner, 63 P.3d 686, 700 (2002) (allowing plaintiff to collect punitive damages for Utah common-law fraud claim).

[179] *See* Amanda M. Rose, *Form vs. Function in Rule 10B-5 Class Actions*, 10 DUKE J. CONST. L. & PUB. POL'Y 57, 57 (2015) (concluding that 10b-5 suits do not achieve the same social benefits that flow from the common law fraud cause of action); *see also* Brendan J. McCarthy, *"In Connection with": The Need for Limitation to SEC Rule 10b-5 in Dissemination of Misleading Information Cases*, 54 CASE W. RSRV. L. REV. 1347 (2004) (asserting that as opposed to common law fraud, the broad "in connection with" element of 10b-5 can lead to frivolous actions that create distrust between corporation and investor).

[180] *E.g.*, Carpenter v. U.S., 484 U.S. 19, 28 (1987) (upholding insider trading convictions under Mail Fraud Act).

[181] 18 U.S.C. §§ 1341, 1343 (2023).

[182] *See* HAZEN, *supra* note 57, § 1:71.

for wrongdoing should be sought through established state legal systems and federal statutes focused on general fraud, rather than the complex securities regulations. These alternative avenues can offer more direct and accessible remedies tailored to address the specific nature of the misconduct, without threatening to implicate the entire cryptomining hosting industry.

D. A Regulatory Proposal: Introducing CRIPTO

The only issue with these general fraud statutes is that, for the most part, they place the onus on the consumer to seek redress. Thus, if the focus must remain on oversight by a regulatory authority, a self-regulatory organization ("SRO") could offer a preferable alternative to federal agencies like the SEC. An SRO is a private entity, typically made up of industry leaders, which possesses the authority to independently create and enforce specific regulations and standards for an industry and its professionals.[183] Today, the most prominent of these SROs is the Financial Industry Regulatory Authority ("FINRA"), an organization in charge of developing and writing standards to enforce against misconduct among brokers and brokerage firms.[184] FINRA has played an indispensable role in regulating broker-dealer firms and upholding market integrity, and its activities "ha[ve] resulted in the U.S. securities markets becoming the strongest and deepest in the world."[185]

In the novel and rapidly advancing world of cryptocurrency, federal legislation and agency rulemaking will often struggle to keep pace with the industry's continual evolution.[186] Justice William Douglass, an early advocate for the SRO model, aptly described the challenge: "[T]he problem of direct government regulation . . . is a

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[183] Adam Hayes, *Self-Regulatory Organization (SRO): Definition and Examples*, INVESTOPEDIA (June 30, 2021), https://www.investopedia.com/terms/s/sro.asp [https://perma.cc/FQ7Z-9LKC].

[184] Timothy G. Massad & Howell E. Jackson, *How to Improve Regulation of Crypto Today—Without Congressional Action—and Make the Industry Pay for It* 5 (Brookings Inst., Hutchins Ctr. Working Paper No. 79, 2022).

[185] *Id.* at 4.

[186] *See id.*

little bit like trying to build a structure out of dry sand."[187] Under current law, the SEC and the Commodity Futures Trading Commission ("CFTC") could establish a joint SRO for the crypto market and crypto-related financial instruments without additional congressional approval.[188] In this context, an SRO (ideally one with a clever acronym) such as the Cryptocurrency Regulatory Integrity, Protection, and Transparency Organization ("CRIPTO"), might offer a more agile and effective solution.[189] An organization like CRIPTO could bridge the gap between dynamic market developments and the need for thoughtful, responsive oversight.

CRIPTO, a crypto equivalent of FINRA, could develop standards on issues like protection and custody of consumer assets, development of governance standards, conflicts of interest, risk management procedures, and fraud prevention.[190] While the focus of this organization would likely be the trade of crypto assets on exchanges, these standards would be broad enough to apply to other intermediaries regardless of whether the instruments they offer "are securities, commodities[,] or something else."[191] This inclusive approach could extend regulatory oversight to entities dealing in mining equipment and hosting services.

The distinction between SRO-driven regulation in crypto and direct SEC oversight would be marked. The first and most important advantage would be the collective expertise of the SRO.[192] One of the major challenges with crypto is that regulators often lack the necessary understanding or resources to address crypto technology effectively, leading to inefficient and poorly tailored regulatory

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[187] *Id.*

[188] *See* Maloney Act, Pub. L. No. 719, 52. Stat. 1070 (1938) (codified at 15 U.S.C. §78o-3) (amending the Securities Exchange Act of 1934 to provide for SROs to operate under the supervision of the SEC); Commodity Futures Trading Commission Act, Pub. L. No. 93-463, § 17, 88 Stat. 1389 (1974) (codified as amended at 7 U.S.C. § 21) (granting the CFTC the authority to oversee SROs of futures professionals); Massad & Jackson, *supra* note 181, at 2.

[189] The designation "CRIPTO" as a suggested crypto SRO is merely an original term coined by the Author for illustrative purposes and does not refer to an existing or proposed entity.

[190] Massad & Jackson, *supra* note 181, at 14.

[191] *Id.* at 24.

[192] *Id.* at 16.

approaches.[193] Moreover, an SRO's standards can be more quickly and easily adapted, allowing for prompt revisions and enhancements in light of practical application and evolution in the marketplace.[194] This swift adaptation would protect customers without "stifling innovation with compliance costs and red tape."[195]

While crypto companies have fought tooth and nail to avoid direct SEC jurisdiction and securities classification, they may be more receptive to self-regulation.[196] Industry leaders, such as Coinbase and Gemini, have already advocated for an approach like CRIPTO.[197] There is likely a market incentive for companies to join an effective SRO, potentially enhancing investor trust by demonstrating adherence to thorough investor protection standards.[198] Moreover, membership could yield regulatory clarity, allowing the SEC and CFTC to focus on non-compliant entities, rather than those meeting SRO criteria.[199] There is no reason to believe that mining companies would not also be encouraged to participate.

This SRO would not be a toothless organization or one beholden exclusively to the self-interests of its crypto firm members. Each relevant regulatory agency would have the statutory authority to review and approve the SRO's charter, by-laws, and membership.[200] Agencies may also direct an SRO to abrogate, amend, or adopt a

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[193] *See id.* at 14.

[194] *Id.* at 17.

[195] Todd White & Ralph Benko, *A Self-Regulatory Organization Is the Best Way to Advance Crypto While Protecting the Public*, COINDESK (Nov. 30, 2022, 12:50 PM), https://www.coindesk.com/layer2/2022/11/30/a-self-regulatory-organization-is-the-best-way-to-advance-crypto-while-protecting-the-public/ [https://perma.cc/AD8H-RSHY].

[196] *See* Massad & Jackson, *supra* note 181, at 20.

[197] *See, e.g.*, Faryar Shirzad*, Digital Asset Policy Proposal: Safeguarding America's Financial Leadership*, COINBASE (Oct. 24, 2021), https://blog.coinbase.com/digital-asset-policy-proposal-safeguarding-americas-financial-leadership-ce569c27d86c [https://perma.cc/7SWB-TQ8S] ("[A] dedicated self-regulatory organization (SRO) should be established to strengthen the oversight regime and provide more granular oversight[.]").

[198] Massad & Jackson, *supra* note 181, at 20.

[199] *Id.*

[200] 15 U.S.C. § 78o-3(a); 7 U.S.C. § 21(a).

rule.[201] Although agency interference would ideally be exercised with caution, the threat of the SEC and CFTC ensures that CRIPTO would not "fall victim to free-riding and principal-agent concerns."[202]

While the core of this Article advocates against excessive SEC regulation of hosting contracts, it acknowledges that should regulatory oversight be deemed necessary, allowing industry to guide through an SRO would be the optimal path to allow for a balance between innovation and consumer protection.

VI. CONCLUSION

It is easy to understand why the transaction in the *Green United* case may seem to fall within the scope of the 1933 Act. After all, one of the primary motives of the 1933 Act was to protect investors from fraudulent schemes similar to those allegedly perpetrated by Green United. However, to echo the age-old legal adage: "bad facts make bad law." It is clear that the crux of the case against Green United revolves not around the security, but the fraudulent element—the deceitful claim of mining assets on a nonexistent blockchain. The real apprehension is not necessarily how a 1933 Act Section 5 violation might be applied in this instance, but how it could be leveraged against the whole mining industry in the future, even where no fraud is present. If the courts were to classify the sale of Green Boxes and Green Nodes as unregistered securities, what precedent would this set for the sale of legitimate mining equipment and hosting services? The complaint suggests that the SEC may be venturing into the uncharted territory of labeling these transactions as securities, a potential overreach that could stifle innovation and growth.

Cryptomining has undergone significant evolution over the past decade, bringing forth innovative strategies that place hosting

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[201] 15 U.S.C. § 78s(c); 7 U.S.C. § 21(k).

[202] *Can a Cryptocurrency Self-Regulatory Organization Work? Assessing Its Promise and Likely Challenges*, FINREG BLOG (June 21, 2018) https://sites.duke.edu/thefinregblog/2018/06/21/can-a-cryptocurrency-self-regulatory-organization-work-assessing-its-promise-and-likely-challenges/ [https://perma.cc/7S7D-VGVH].

contracts at the core and allowing industry participants to navigate complex demands. As detailed throughout this Article, the architecture of cryptomining hosting operations is fundamentally distinct from the scheme operated by Green United, which, upon scrutiny, did not actually involve direct mining of GREEN. Despite the SEC's allegations, this exploration into the nuanced layers of cryptomining and hosting contracts highlights the clear demarcation between service agreements and securities.

Across a broad spectrum of motivations and contractual terms, hosting contracts generally comport with service agreements and do not meet the definition of "securities" under the Securities Act of 1933. When subjected to the *Howey* test, these contracts do not satisfy the criteria of an investment contract, particularly the common enterprise element, thus offering a reprieve to the vast majority of hosting facilities across the United States from securities regulations and consequent registration requirements.

Courts should exercise caution when considering the application of securities law to hosting contracts. A decision in favor of the SEC's Section 5 violation claim in *Green United* could improperly broaden the SEC's regulatory reach, conflating service agreements with investment contracts. This could place numerous legitimate business models in jeopardy, impose undue burdens on technological advancement, and disrupt financial innovation. This will be a pivotal decision, carrying significant weight for the future of emerging technologies and the financial ecosystems that support them.

This Article does not mean to imply that Green United should be exempt from scrutiny. There are numerous non-securities legal avenues for addressing potential fraud and misconduct, including criminal or civil claims. This Article also proposes reasonable regulatory alternatives the SEC could establish to preemptively address issues such as fraud, like the creation of a crypto self-regulatory organization.

Ultimately, it is essential to ensure that the drive for regulatory clarity in this emerging and dynamic industry does not stifle innovation. Investors need protection, but they also need to be assured the SEC will "mine" its own business.