



Play Greener: Solutions to Offset the Environmental Impact of Videogame NFTs

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The potential applications of non-fungible tokens (NFTs), like blockchain technology in general, are attracting attention across the economy. Some early projects by mainstream videogame publishers have been met with mixed reviews, but adoption shows no sign of slowing down. But like blockchain technology in general, NFTs, including in videogames, cause environmental concerns because of the energy required to create, transfer, and track them. A number of factors can influence NFT energy consumption, but a single NFT can generate more carbon dioxide than driving for 500 miles^[1] (and every subsequent transfer of the NFT would generate incremental emissions). Coupled with research that shows 66% of gamers are more likely to play games that are socially and environmentally responsible,^[2] it is evident that game studios have not only a values-based but also commercially-driven conundrum on their hands when deciding whether and how to introduce NFT marketplaces into their products.

Fortunately, there may be ways for the world to “play greener.”

Game studios can choose to support NFT transactions with “proof-of-stake” blockchain protocols, which are more environmentally friendly than “proof-of-work” protocols (currently used by Ethereum and Bitcoin). Proof-of-work blockchains secure transactions by requiring crypto miners to solve computationally-intensive problems which results in significant energy consumption while the proof-of-stake chains secure transactions with much less energy by requiring miners to “stake” their own resources to validate the chain. In fact, there are plans for Ethereum to transition to a proof-of-stake protocol that could result in a huge reduction in energy usage.^[3] That transition has been plagued by delays and may or may not happen sometime in 2022. In the meantime, there are many proof-of-stake technologies that can be used to support NFT transactions in-game.^[4] Executives will need to assess whether these blockchain projects have sufficient consumer adoption, among other factors.

Utilizing proof-of-stake technology is insufficient by itself to cure the environmental issues faced by NFTs—Ubisoft received backlash despite using choosing the PoS platform Tezos over Ethereum.^[5] Some enterprises invest in building renewable energy sources to power servers in order to offset carbon emissions and deliver cost savings.^[6] Alternatively, companies can offset their growing carbon footprint by purchasing and retiring renewable energy certificates (RECs) from renewable energy facilities. Doing so will compel utilities to add more renewable energy generation to the grid to meet regulatory requirements as the world continues to push for the decarbonization of the electric power sector. The Green-e® certification program^[7] can be a potential resource for purchasing RECs with verified environmental attributes and validating sustainability messaging in marketing and PR.

Get in touch with Winston & Strawn's Videogame, Gaming & Esports Group to learn more about NFTs in gaming and sustainability.

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^[1] The Unreasonable Ecological Cost of #CryptoArt (Part 1), <https://memoakten.medium.com/the-unreasonable-ecological-cost-of-cryptoart-2221d3eb2053>, (last accessed January 11, 2022).

^[2] 66% of Gamers More Likely to Play Socially Responsible Games, <https://www.gamesindustry.biz/articles/2021-04-29-66-percent-of-gamers-more-likely-to-play-socially-responsible-games>, (last accessed January 11, 2022).

^[3] Ethereum's Energy Usage Will Soon Decrease by ~99.95%, Ethereum Foundation, <https://blog.ethereum.org/2021/05/18/country-power-no-more/>, (last accessed January 11, 2022).

^[4] Types of Blockchains: PoW, PoS, and Private, Gemini, <https://www.gemini.com/cryptopedia/blockchain-types-pow-pos-private#section-proof-of-stake-blockchains>, (last accessed January 11, 2022).

^[5] After Backlash, Ubisoft Calls Gaming NFTs a 'Major Change That Will Take Time', <https://decrypt.co/88880/after-backlash-ubisoft-calls-gaming-nfts-a-major-change-that-will-take-time>, (last accessed January 11, 2022).

^[6] Google Buys 50MW of Wind Power for German Data Centers, <https://www.datacenterknowledge.com/energy/google-buys-50mw-wind-power-german-data-centers>, (last accessed January 11, 2022).

^[7] Green-e, <https://www.green-e.org/>.

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