Carbon Footprint of NFTs: 12 Key Takeaways

NFTs are tokenized versions of physical or virtual assets. They enable transparency and accountability to address issues of forgery, double counting, and provenance.



NFTs are central to new business models and new economies.

They provide a means to transact, and to engage socially and geographically diverse stakeholders in new experiences and communities.



Not all NFTs are equally carbon intensive.

Underlying technology stacks and consensus mechanisms determine the carbon footprint of NFTs.



The Proof of Work consensus mechanism and its underlying mining process requires intensive energy inputs.



Approximately 80 percent of NFTs are transacted via Ethereum which currently uses the energy intensive Proof of Work consensus mechanism. Ethereum is transitioning to Proof of Stake in 2022.



Bitcoin and Ethereum account for approximately 0.36 percent of human-generated global carbon dioxide emissions.





The NFT ecosystem is evolving with other lower carbon footprint blockchain options already available, as well as layer 2 solutions that are less energy intensive and more scalable.

Prudent policy is essential. Several
countries ban or limit
crypto mining due to
pressures on the
electrical grid.



Proof of Work miners do not have a public facing role so it is difficult to hold them accountable for their carbon footprint.





The entire blockchain ecosystem must shoulder the responsibility for environmentally sound solutions.

Verified offsets should be employed for a fully carbon-neutral solution.

Align your project with certified environmental projects that benefit communities and foster cycles of positive reinforcement in scale and investment.



Embedded energy and climate disclosures in platforms allow users to make informed choices about using one blockchain or sidechain over another.







