

What is their impact on the environment?

Cryptocurrency mining is believed to be highly energy-intensive, while generating a lot of electronic waste. Using Bitcoin as an example, the Bitcoin Energy Consumption Index by digiconomist.net has estimated its carbon footprint, energy use and amount of electronic waste generated.

Annualised total Bitcoin footprints

Carbon footprint
114.06 Mt CO2



Comparable to the carbon footprint of Czech Republic.

Electrical energy
204.50 TWh



Comparable to the power consumption of Thailand.

Electronic waste
34.16 kt



Comparable to the small IT equipment waste of the Netherlands.

Single Bitcoin transaction footprints

Carbon footprint
1,207.81 kgCO2



Equivalent to the carbon footprint of 2,676,915 VISA transactions or 201,301 hours of watching Youtube.

Electrical energy
2,165.46 kWh



Equivalent to the power consumption of an average US household over 74.22 days.

Electronic waste
361.70 grams



Equivalent to the weight of 2.21 iPhones 12 or 0.74 iPads.