



The Vayner3 Guide to:

# Demystifying Web3's Environmental Impact

Photo by [Uzunov Rostislav](#) on [Pexels](#)

**Ethereum dramatically changes its sustainability narrative, for good**

The first energy consumption report from the Ethereum Foundation following Ethereum's major technological upgrade last month - "The Merge" - fully validates the expected power consumption reduction (99.988%). Now, the blockchain's annual energy consumption is 45x lower than the billions of YouTube views streaming classic K-Pop hit Gangnam Style in 2019.

**But wait, what is "The Merge" again?**

Just over a month ago, the world eagerly anticipated the impact of the Ethereum network switching from a Proof of Work to Proof of Stake consensus mechanism, aka "The Merge." This was a long-anticipated milestone with incredible technological complexity and sophisticated planning. This exciting development directly impacted global energy consumption and carbon footprint, and we expect a seismic shift in Web3 perception by enterprises, mainstream media and, most importantly, the general public.

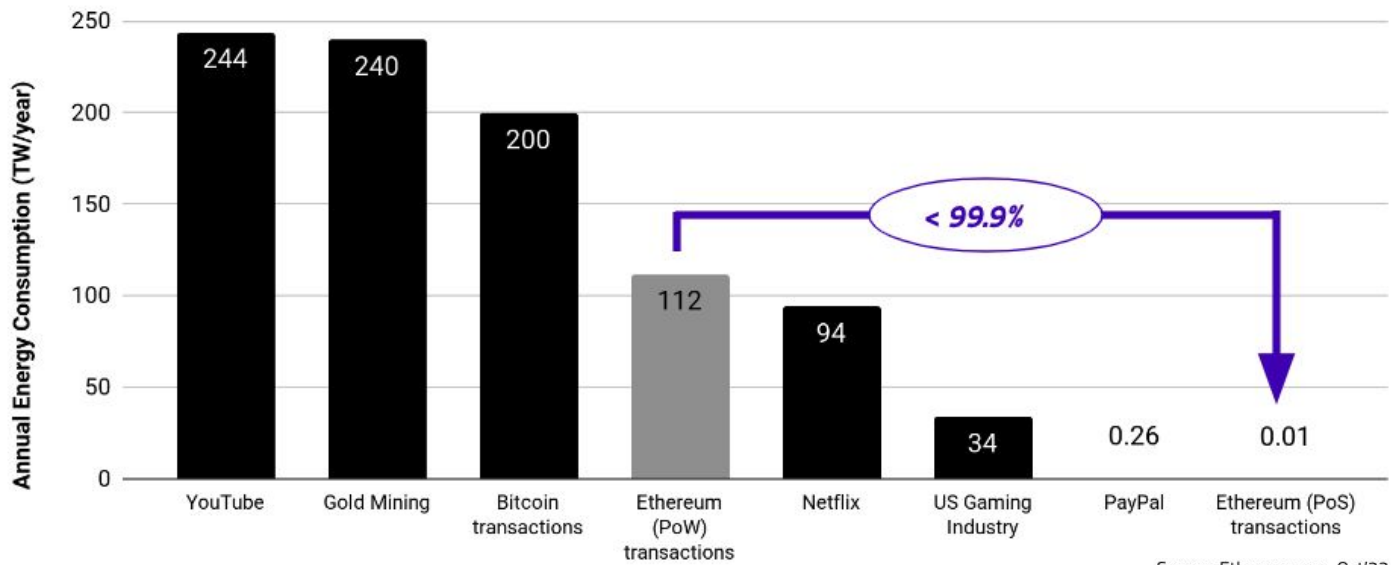
**The results are in - let's see some data!**

One month post-Merge, we have the first set of energy consumption insights - the Ethereum network is now a global leader in low energy consumption among digital networks. As seen in the graphic below, the Ethereum network's shift towards a Proof of Stake (PoS) network has drastically altered its energy consumption footprint. All transaction volume on the \$150b+ Ethereum blockchain (DeFi, NFTs, payments, trading, etc.) now looks negligible compared to Netflix streaming, Gold mining, and even PayPal transactions.



## Annual Energy Consumption Estimates

TW per year



## The broader sustainability narrative in blockchain technology

This positive development by a leading blockchain is one of many continued efforts towards sustainability in the Web3 space. Other notable examples include:

- Layer 1 blockchains like Solana, Tezos and Flow have had sustainable and green missions from day 1
- [Carbon offset and credit solutions](#) in the works to provide additional incentives for enterprise ESG priorities such as carbon negative goals.

## The Bottom Line

Vayner3 is at the forefront of understanding the evolving Web3 landscape for enterprises, and we believe this development provides the “green light” for many companies who were hesitant to participate in this new iteration of the internet for environmental reasons.

