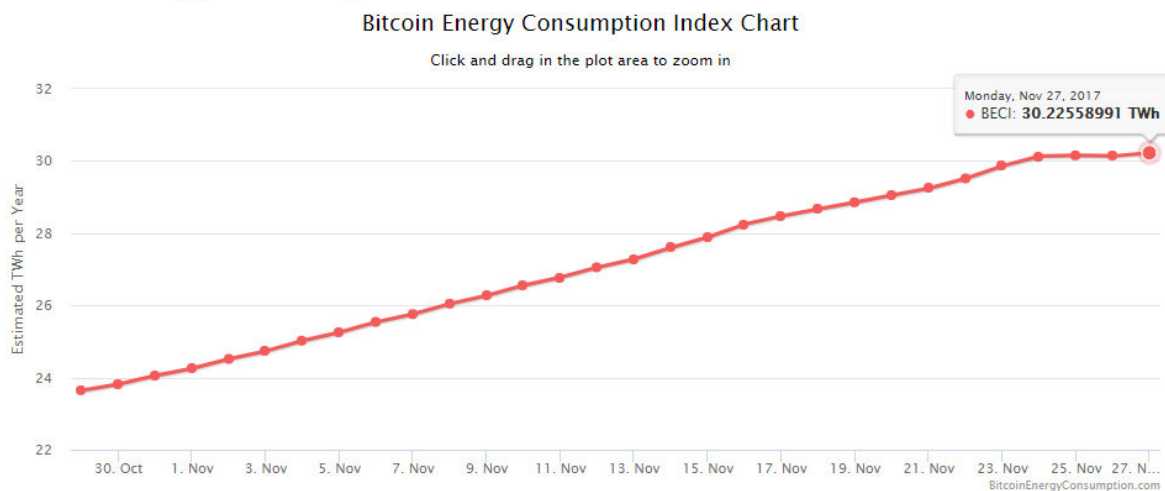


Spotlight glare on Bitcoin as numbers show mining's energy use

November 28 2017, by Nancy Owano

Bitcoin Energy Consumption Index



Credit: Digiconomist

(Tech Xplore)—We heard in early studies that Bitcoin used much energy. *Digiconomist* can take us down memory lane when an [investigation](#) into the energy consumption of the Bitcoin network was conducted by Karl J. O'Dwyer and David Malone. According to *Digiconomist*, they found it plausible that the energy used by Bitcoin mining was comparable to Irish national energy consumption.

Well, now there are fresh looks into consumption, "and it seems reality

may have finally caught up with their conclusion. According to the Bitcoin Energy Consumption Index the Bitcoin [mining](#) network actually passed Ireland in terms of electricity consumption this week, and this time the error margins are significantly smaller." That was from *Digiconomist* on Nov. 14.

(About this [Index](#): It provides the latest estimate of the total [energy](#) consumption of the [bitcoin network](#). This is an estimate of the network consumption, consisting of the cumulative energy requirements of everything on the bitcoin network.)

What? You mean there are consequences from computers solving all those complex cryptographic problems?

Do we need to think about the environmental impact of all this electric usage being used to mine more bitcoins?

"It's worth asking ourselves hard questions about Bitcoin's environmental [footprint](#)," said *Motherboard* earlier this month.

"If Bitcoin miners were a country they'd rank 61st in the world in terms of electricity consumption," said Power Compare.

Mark Wycislik-Wilson in *BetaNews* put the picture a different way: "At the moment Bitcoin is using up five times the amount of electricity than Europe's largest wind farm currently [produces](#)."

Alex Hern in *The Guardian* raised some numbers in yet another novel way: "At those levels of electricity consumption, each individual bitcoin transaction uses almost 300KWh of electricity – enough to boil around 36,000 kettles full of [water](#)."

Then there was *Fast Company*'s breath-pauser: "Bitcoin mining uses

more electricity per year than the country of Oman."

Fast Company added, "The global energy required by the bitcoin network, which is responsible for verifying bitcoin transactions, exceeds the annual energy consumption of the Arabian country, reports *Digiconomist*. The publication estimates that [bitcoin mining](#) consumes 30.14TWh of [power](#) a year at a cost of \$1.5 billion in electric bills."

Bitcoin's "mining" [network](#) uses more electricity in a year than the whole of Ireland, according to statistics released, said Hern on Monday.

Business Insider ran the headline: "The electricity used to mine bitcoin this year is bigger than the annual usage of 159 countries."

Daily Sabah said that "the global energy consumption used in the production process of the virtual currency known as "mining" surpasses the individual consumption of 159 individual [countries](#)."

Power Compare was working out the numbers: "According to Digiconomist's Bitcoin Energy Consumption Index, as of Monday November 20th, 2017, Bitcoin's current estimated annual electricity [consumption](#) stands at 29.05TWh. That's the equivalent of 0.13% of total global [electricity consumption](#). While that may not sound like a lot, it means Bitcoin mining is now using more electricity than [159](#) individual countries," said the London-based, information only website.

The [energy consumption](#) of Bitcoin as investigated by *Digiconomist* can be checked out via a [chart](#).

Oscar Williams-Gruthe in *Business Insider* commented that "Miners are turning to more powerful computers to complete these tasks and earn bitcoin. As a result, mining (and on the flipside, [bitcoin transactions](#)) are sucking up greater and greater amounts of [electricity](#)."

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