Bitcoin is Time + Energy = Proof of Work

by Charlene Brown

Simply put, in mathematical language

Since the genesis block was validated, January 3, 2009, Bitcoin has not stopped for one second.

Unlike stock exchanges that open and close with the earth's rotation. bitcoin never closes.

Unlike absentee banks with holidays and weekends, bitcoin takes no personal-time-off.

That first block of 50 bitcoin has given root to +19,383,387 offspring, without a blink or pause.

Mining these baby coins consumes certain amount of energy. Hence, the bitcoin protocol is built on Proof-of-Work.

Bitcoins are rewarded to the computing device that completes a very complex equation within a given timeframe.

Each device running the bitcoin node, sweat equity, on the blockchain consumes electricity in performing the task of mining and sustaining the network.

Understanding how kilowatt hours work, for instance, on your electric bill makes it easier to get bitcoin and how it works in terms of energy.

A 60 watt light bulb uses 60 watts per hour, so if you keep the light on for 24 hours it consumes 240 watts. By the time you get your bill in 30 days, that light has used up to 7,200 watts or 7.2 kilowatts. If the cost of electricity in Utah is 0.11 cents per kilowatt, you would pay Warren Buffet owned Pacificorp, Rocky Mountain Power, $0.79 per light bulb each month.

What if the Bitcoin instead of paying 79 cents your computer could earn $0.79 running the bitcoin network.

Smart sense says, as the value of Bitcoin increases, the payout per device also goes up. But when Bitcoin mining out paces the cost of electricity, just unplug your computer or migrate your operation to a jurisdiction where energy cost is low, which is the subject of this edition - El Salvador.

Otherwise, find an electric utilities offering demand response at lower rates for operators to use electricity off-peak when demand is low, like at night when most light bulbs are off.

It costs the utility more to ground all that unused energy, because they can't store it and they can't eliminate it

What if a person wakes up in the night and flips on the light switch in the bathroom and there was no light? So the utility has to maintain a certain stable power, or reliability, at all times.

In full disclosure, previously I worked at Pacificorp and also prior to that at Sothern California Edison.

A utility that incentivizes operators to take this excess electricity, the time of use product, that energy could make bitcoin mining anywhere more function of reliability, sustainability and energy efficiency.

Isn't it funny how Warren Buffet and his Berkshire Hathaway spokes peeps like to dish dirt on bitcoin and crypto, when in actuality,

Warren Buffet, who owns many electric and gas utilities, is the first and foremost benefactor of Bitcoin mining and the blockchain energy consumption economy.

And what if just one night per week, everyone on the grid make an agreement that nobody will wake up to turn on the light that night, but they didn't tell the electric utility of the plan.

That would result in extreme excesses of electricity that the utility must ground.

The advantage here, is for bitcoin miners and utilities to synchronize, capitalizing on excess energy to bring idle mining computers online. The cost-savings on both end would be a win win for all.