



# POWER UP BLOCKCHAIN

a weekly briefing on blockchain & energy innovation & regulation  
US & global coverage



## Focus: Spanish Startup Plans 100% Solar-Powered Mining Facility to Tackle Bitcoin's Sustainability Problems

How to make bitcoin more sustainable? Power it with renewables. Tackling the growing problem of blockchain's [massive energy consumption](#), Malaga-based startup [CryptoSolarTech](#) has plans to install 3,000 cryptocurrency mining servers at a facility that will be powered by 100% carbon-neutral solar energy. Bitcoin and other blockchain-based cryptocurrencies face significant scaling problems because of the large amount of energy required to run servers to verify transactions. As Álex Sicart, a tech prodigy named in [Forbes'](#) 2017 list of 30 most influential young Europeans under 30, said on the sustainability of cryptocurrency, "we either have to make the algorithms used to mine cryptocurrency more efficient or find a way to mine them with renewable energy, like solar energy." CryptoSolarTech is opting for the latter, with a 15-year contract to purchase solar power generated in Seville. Sicart, who will be serving as a disruptive technology consultant to CryptoSolarTech, also has plans to use blockchain to support peer-to-peer energy sales.

Not all cryptocurrency processors share a dedication to environmental sustainability, resulting in increasing interest in running servers in regions rich in oil and coal. In an extreme example, blockchain mining companies expressed interest in directly taking over a failing [coal fired power plant](#) in Montana to power their equipment. Though the company may pay regulated rates for transmission, the coal plant would directly supply the mining facility. CryptoSolarTech seeks to show that renewable resources are a better investment by proving that combining solar power with mining can reduce the costs of mining to [near-zero](#) while also minimizing environmental impacts. [Business Insider](#), [Accesswire](#)

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## California Dreaming Up New Ways for Blockchain to Accommodate Solar Expansion

With as many as 90,000 new homes that will need solar panels each year under its new rooftop solar mandate, California utilities are looking to new technology to accommodate the rapid expansion. As more homes have both solar panels and battery storage, the likelihood of neighbors seeking peer-to-peer trading is likely to increase. But blockchain also has uses beyond peer-to-peer trading. For example, [PG&E](#), California's largest utility, is studying the use blockchain for smart contracts to generate clean energy credits. [Bloomberg BNA](#)

## Peer-to-Peer Going Into High Gear

Blockchain has great potential to revolutionize peer-to-peer trading in the energy sector, a fact the industry has noticed, with [increasing numbers of startups](#) focused on just that. [Green Power Exchange](#) is one of the most recent and largest entrants into the field, with 62 active projects generating more than 3.3 terawatt-hours of energy per year planned for its 2019 launch. While the company, which plans to create a platform for consumers to use smart contracts to buy power directly from solar projects, will be conducting its initial coin offering (ICO) in the third quarter of this year, its competitors are working to establish themselves with funds from their own ICO's. For example, [Power Leger](#) has plans for microgrids in Puerto Rico and [WePower](#) is focusing on starting trading in Spain and Australia this year. [GreenTechMedia](#)

## Swiss Mountain Alps Energy's Out of the Box Solution To Reduce Mining Costs


[Swiss Alps Energy](#) (SAE) is thinking outside the box. By dropping boxes of mining equipment high in the Swiss mountains, the blockchain mining company is trying to minimize costs by maximizing efficiency. SAE has placed aluminum cubes filled with mining equipment at high altitudes where waste heat can be more efficiently re-captured because of the low boiling temperature of water and where there is no need for air conditioning as outside temperatures average below 5 degrees Fahrenheit. [NewsBTC](#)

## Blockchain's First Steps Towards Micro-Tracking of Consumer Carbon Footprints


Traditionally, carbon markets have operated on mass scale, making the purchase of carbon offsets inaccessible to consumers. But now, with the help of block-chain, the environmentally conscious ice-cream company, [Ben & Jerry's](#) is piloting a program that leverages blockchain to calculate the environmental

impacts associated with a single scoop of ice-cream and offering consumers an opportunity to donate a penny to counterbalance the impacts. The Ben & Jerry's pilot, which will launch out of its London store, is expected to help consumers' gain a better understanding of their individual purchases on the environment and make a contribution to the projects, like planting forests or developing renewables, that can offset carbon emissions. [Forbes](#)

## Meet the PowerUp Blockchain Team:

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