

‘Fintech’ helps power the green energy revolution

From “cryptocurrencies” to crowdfunding, innovative financial technology offers new ways for citizens to get involved in green energy projects, and to reap the benefits of the clean power produced

NEW PRODUCTS AND TECHNOLOGIES



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Can “cryptocurrencies” encourage green-tech? Nowadays virtual means of payment are in use as an alternative to our existing currencies. Among them is SolarCoin (§), created to reward solar energy producers and to give an incentive to others considering installing solar panels.

Anyone who produces solar energy, on their roof or in a solar park, can submit meter readings of their energy production and receive these digital coins as a reward – to the tune of one SolarCoin per megawatt-hour (1§ per MWh).

Like all cryptocurrencies, this digital coin is based on blockchain technology.

centralised in private databases (such as banks). In contrast, the blockchain is an open database spread across a vast network of computers that publicly records an ever-growing list of transactions, each called a block.

“We use SolarCoin to incentivise people to produce solar power, but we need market awareness and education about blockchain. Getting recognition from governments and large institutions like the UN would help establish trust,” says François Sonnet, co-founder of ElectriCChain, the blockchain underpinning SolarCoin.

One organisation that has embraced the solar cryptocurrency is the French crowdfunding platform Lumo. To date, they have raised around three million euros for around 30 projects, including an €800,000 investment in a French solar park. “Most investors are local citizens who want to see their money work,” says Alex Raguet, co-founder of Lumo. “Every year you receive three to seven percent interest,” he explains, “and you get the capital back at the end.”

In 2016, Lumo adopted the virtual coins to reward investors in solar projects and to demonstrate the green credentials of the investment. “Our crowdfunders get the SolarCoins that their money is helping to produce,” says Raguet. “The coins, which can be traded freely, are currently worth around €0.20 but the value could increase if carbon taxes are introduced.”

But how green are cryptocurrencies? Bitcoin, the first and most well-known cryptocurrency is notoriously energy-greedy. It uses massive amounts of computer power to solve the puzzles, or algorithms, to “mine” coins, and was estimated to have the same energy consumption as the Republic of Ireland in 2014.

Rather than guzzling electricity, “SolarCoin only uses three to five percent of the energy [of Bitcoin],” says Sonnet, “You don’t need to buy servers to mine

SolarCoin could be even fairer, according to Michele Andrea Kipiel, a self-taught blockchain expert and blogger in Rome. “The 1 MWh production target is fixed and too high to attain for a normal family house with solar panels on the roof,” he says. This favours mass producers. The digital coin could be made more accessible by replacing the fixed production target of 1 MWh with dynamic production targets personalised to each producer, explains Kipiel in a recent blog post.

For fintech tools like cryptocurrencies and crowdfunding platforms to move from the niche to the mainstream, regulation needs to catch up with innovation. “We had to do a lot of lobbying to create a framework for Lumo to operate in,” says Raguet, adding that they became operationally functional only in 2014, when regulations had been put in place.

France wasn’t the only country in Europe with a lack of framework for such projects. “For the energy transition to be successful it has to be at the European level,” says Raguet. In this context, the CrowdFundRes project, in which the French platform is involved, aims to improve the regulatory framework and public understanding of crowdfunding for renewable energy projects.

By Fiona Dunlevy

Keywords

finance, technology, fintech, renewables, crowdfunding, solar energy

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