



POWER UP BLOCKCHAIN

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



Welcome to PowerUp Blockchain - a weekly briefing on blockchain and energy innovation and regulation. With blockchain spreading in the energy industry both in the U.S. and overseas faster than the speed of light, it can be difficult to keep abreast of new developments. PowerUp Blockchain fills the void by delivering timely and focused news and analysis on blockchain in the energy industry in the U.S. and worldwide on a weekly basis. If you're not already subscribed, click [HERE](#).

The New Energy Hogs on the Grid

Bitcoin's appetite for energy is growing at an alarming pace. A recent [study](#) found that the Bitcoin network processes a whopping 200,000 transactions per day, at 300 kWh per transaction. When you consider that the average American household uses around [911 kWh](#) per month you get a sense of the magnitude of energy that bitcoin transactions consume. [Gizmodo](#)

Blockchain Powered Energy Is The New Kid on the Block at Northwestern University

Chicago-based [Clean Energy Blockchain](#) and Australian blockchain-powered renewable trading company, [Power Ledger](#) have teamed up to launch the Power Ledger, a peer-to-peer trading system, on the Northwestern University campus in Evanston, Illinois - making it the first such system commercially deployed in the United States. The Power Ledger platform allows consumers to buy and sell renewable energy directly to each other by tracking the transactions through existing meters and without the need for a utility as a middle-man. The Power Ledger project won't just power the campus, but fuel research as well: grad students will use data generated by the project to research whether it generates energy savings and emissions reductions. [EnergyNews US](#), [TechCrunch](#)

New Model to Reduce Blockchain's Energy Consumption Tested As Part of the UK's First Peer-to-Peer Trade

Though blockchain holds promise for facilitating peer-to-peer energy transactions, any cost-savings resulting from eliminating the middle-man can be cancelled out by the energy costs needed to log the transaction. But [Verv](#), a machine learning startup, may have a potential solution. Deployed as part of a live trial that saw UK's first peer-to-peer energy trade on blockchain in April 2018, the Verv model minimizes energy consumption by logging individual transactions throughout the day using a proof of authority model. The system then logs all transactions once each day on the [Ethereum](#) blockchain, minimizing energy consumption per transaction while maintaining immutable proof of the trades. The live trial is a collaboration between Verv and [Repowering London](#), a community energy non-profit, which installed solar panels on 13 blocks of flats in Hackney's Banister House Estate. The UK government's Ofgem Innovation Link has shortlisted the Verv trial as a potential participant in its Regulatory Sandbox program, which supports energy innovation and identifies opportunities for regulatory adaptation to new technology. [Forbes](#)

Pilot Peer-to-Peer Trading Program Helps Keep Renewables Online By Clearing Congestion To Reduce Renewable Energy Curtailment

Turns out that there can be too much a good thing. Currently in the UK, curtailment that affects up to 10 percent of renewable production as a result of more renewables coming on line causing grid congestion. In fact, congestion management costs have increased [74%](#) in Britain since 2010, which in turn has forced many renewables to curtail production. But blockchain may offer some solutions. [Centrica](#), a British multinational electricity and gas supplier, and [LO3](#), a New York-based blockchain startup, have partnered in a pilot local energy market in Cornwall, England, one of the first places in the UK to experience grid congestion caused by renewable energy generation. Together, these companies will offer homeowners the opportunity to trade renewable energy instead of purchasing from a centralized supplier, thus taking some of the pressure off the grid. The

program is seeking 200 houses and businesses to participate in the pilot, which is being conducted in partnership with the local distribution network operator. [Greentech Media](#), [CleanTechnica](#)

Blockchain Fueling Renewable Energy Development

Blockchain's potential for the energy sector isn't limited to peer-to-peer trading. Blockchain financing can also power more streamlined investment in renewables. For example, [Datawatt Energy](#) launched at Windpower 2018 with plans to use blockchain financing to develop wind projects. Another example, [ImpactPPA](#), which has been working in traditional renewable energy for ten years, is focused on bringing a variety of clean energy solutions to developing nations by bypassing bottlenecks in financing systems through blockchain technology, smart contracts, and its own energy protocol. [Nasdaq](#), [Renewable Energy World](#)

Meet the PowerUp Blockchain Team:

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Need an expert to research energy innovations or help your company strategize new business or develop a regulatory policy? Contact PowerUpLegal at info@poweruplegal.com or [submit a request](#) and we can provide an attorney or policy specialist to assist.



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