BLOCKCHAIN ENERGIZER – VOLUME 29

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Energy Alert

There is a lot of buzz around blockchain technology and its potential to revolutionize a wide range of industries from finance and health care to real estate and supply chain management. Reports estimate that over $4.5 billion was invested in blockchain startups in 2017 alone, and many institutions and companies are forming partnerships to explore how blockchain ledgers and smart contracts can be deployed to manage and share data, create transactional efficiencies, and reduce costs.

While virtual currencies and blockchain technology in the financial services industry have been the subject of significant debate and discussion, blockchain applications that could transform the energy industry have received comparatively less attention. Every other week, the K&L Gates' Blockchain Energizer will highlight emerging issues or stories relating to the use of blockchain technology in the energy space. To subscribe to the Blockchain Energizer newsletter, please click here.

On June 7, your Blockchain Energizer author Buck Endemann participated on a "Leveraging Blockchain for Sustainable Energy" panel hosted by Women in Cleantech & Sustainability at Palo Alto City Hall. Co-panelists Lydia Krefta (Pacific Gas & Electric), Cassie Bowie (Energy Impact Partners), Lena Perkins (CPAU), Yvette Solorzano (Omega Grid) and Sara Prochasson (Enedis) discussed how Blockchain technology, paired with the right regulatory environment, could unlock value for utilities and end users and advance renewable energy goals around the world.

CHELAN COUNTY PUBLIC UTILITY DISTRICT EXTENDS MORATORIUM ON NEW ELECTRICITY REQUESTS FROM CRYPTOCURRENCY MINERS.

- As we reported previously, Chelan County Public Utility District ("Chelan County") instituted a three-month moratorium on new requests for electricity from cryptocurrency miners in February. In May, Chelan County extended its moratorium for an additional three months.
- Since January 2017, cryptocurrency miners have requested 210 MW of electricity, an amount that nearly equals the annual residential electricity demand of the county's 73,000 homes. The average amount of an individual miner's request for power has increased from an average of 5 MW to 50 MW. The county and its residents are concerned that cryptocurrency mining will increase local rates, strain existing grid infrastructure, and threaten public safety. According to a recent webinar on the electricity demands of cryptocurrency mining, several fires have already occurred in Chelan County due to unpermitted cryptocurrency mining servers using more power than standard residential grid equipment can safely accommodate.
- Chelan County is not the only public utility districts ("PUD") in the region wrestling with the challenge of accommodating cryptocurrency miners' electricity demands. In the neighboring county of Grant, miners have requested 1700 MW, which is nearly three times the amount the area typically generates. Douglas

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County is also experiencing higher demand. All three counties are located in the mid-Columbia Basin that according to some estimates may be home to nearly one-third of all bitcoin mining output. The area has become attractive to cryptocurrency miners because of its cool climate and its abundance of cheap electricity; the average cost of electricity per kWH is 20% is of the national average rate. Given the historical "duty to serve" obligations placed on public utilities, the influx of miners is forcing these PUDs to consider imposing special rates on cryptocurrency miners, investing in new infrastructure, and even purchasing electricity on the open market.

NARADA ASIA PACIFIC PTE LTD. PARTNERS WITH ELECTRIFY TO TRACK DISTRIBUTED ELECTRICITY PRODUCTION THROUGH BLOCKCHAIN.

- Electrify, a blockchain-based electricity marketplace platform, and Narada Asia Pacific Pte Ltd. ("Narada"), a subsidiary of one of China's largest energy storage companies, have signed an agreement to track electricity storage in various parts of the Asia Pacific. Narada will use Electrify's "PowerPod" to collect real-time data on electricity storage in Singapore, Australia, Japan, and Cambodia by attaching a PowerPod to Narada's energy storage products. Narada will use this data to adjust the price at which it will purchase and sell electricity. With the PowerPod, Electrify monitors and records energy production data from various producers onto its blockchain platform, thereby creating a distributed and immutable record of such data. Additionally, the two companies are exploring power purchase agreements for solar power and a pilot project focused on residential and commercial solar panel installation.
- By utilizing Electrify's blockchain platform, Narada will be able to manage its distributed energy storage throughout the Asia Pacific more efficiently and will be more capable of anticipating its customers' energy needs.

CATALONIA EXPERIMENTING WITH BLOCKCHAIN TO INCENTIVIZE LOCALIZED SMART METERING.

- The government of Catalonia and the Catalan Institute of Energy (the "Institute") are considering distributing digital tokens (also known as "airdropping") to residents of Catalan to incentivize localized smart metering of solar power. Currently, Spanish citizens may sell their excess solar power to the national grid or to third parties but only if they pay an access fee. By using the token to be created by the Institute, residents can buy and sell solar power to and from their community-managed micro-grids, thereby bypassing the national grid. Residents using an excess amount of energy can use their digital tokens to cover the cost of their use, while residents who use less than the average consumer will receive additional tokens. The Institute's goal is to establish the value of each token at 1 kWH of energy to simplify trading. A pilot program to be launched in five cities is planned to begin in August, but, to date, the digital token has not been released and its wallet is in development.

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