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A biweekly update on applications of blockchain technology in the energy industry

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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](#).

Chile's National Energy Commission Adopting Blockchain to Improve Data Integrity of Energy Information.

- Chile's energy regulatory agency, the [National Energy Commission of Chile](#) ("CNE"), [recently announced](#) that, starting this month, it will begin using blockchain technology in order to certify the quality of information provided by CNE to stakeholders, investors and the public at large.
- Through its "Open Energy" initiative, the CNE will use blockchain technology to authenticate data information about the country's energy sector, including average market prices, marginal costs, and fuel prices. The CNE will also use the platform to certify compliance with the rules governing nonconventional renewable energy projects.
- According to a CNE spokesperson, the CNE's decision to implement blockchain was driven in part by concerns over data security. By using blockchain technology as a "digital notary," the CNE will be able to streamline audits, increase transparency, and improve overall data integrity. CNE hopes that the use of blockchain will also increase public confidence in the data provided by CNE, which is used by investors in the Chilean energy space to inform their investment decisions.
- While the majority of blockchain pilots in the energy space have focused on facilitating peer-to-peer and business-to-business transactions, CNE's application of blockchain technology highlights the potential for the technology as a useful tool for regulators to ensure information integrity and regulatory compliance. Chile has been one of the first countries to adopt blockchain solutions for a number of applications. Last year, the Chilean Stock Exchange [announced](#) a partnership to develop a blockchain-based platform for securities lending.

Electrify Raises \$30 Million Through a Digital Token Sale; Will Expand into Southeast Asia.

- Electrify, a Singapore-based retail electricity marketplace company, [raised](#) \$30 million through its digital token sale to develop a blockchain-based peer-to-peer energy trading platform. The company currently aggregates and displays offers for retail electricity and digitizes those offers' corresponding contracts. By doing so, Electrify enables consumers to compare electricity prices and purchase power through sources other than government entities while bypassing inefficiencies derived from manual completing contracts. Since spring of 2017, Electrify has facilitated nearly \$4 million in retail sales.
- Electrify's anticipates that its blockchain-based platform will use smart contracts, a digital wallet, and digital tokens to facilitate transactions between consumers and commercial suppliers or private producers. Consumers will purchase electricity through fiat currency or through the Electrify token, but electricity providers will be required to pay transaction fees with Electrify's digital token and must own a specified number of tokens per 1 kilowatt of rated generation capacity to offer electricity through the platform. The company will distribute some of these digital tokens to consumers as loyalty rewards.
- The company believes the pivot to blockchain will significantly reduce operating costs, particularly costs related to financial settlement and accounting, and the time need to validate agreements, while increasing the transparency of contracts and providing a secure, real-time display of electricity prices.
- Electrify is capitalizing on Singapore's transition to a liberalized energy market. Starting in April 2018, the country will implement a two-phase deregulation program that will, among other things, expand the ability of consumers to buy electricity from retail providers. In phase one, over 100,000 consumers and nearly 10,000 businesses will be allowed to purchase electricity from retailers other than the incumbent utility Singapore Power. Electrify is not planning to restrict itself to Singapore, however. It will use some of its token sale proceeds to expand into Japan, Australia, and various countries throughout Southeast Asia.

Pemex Announces Plans to Implement Blockchain for Its Supply Chain.

- Earlier this month, [Pemex announced](#) that it will use blockchain to manage its oil and gas supply chain. In addition to adopting blockchain, the company has joined the [Petroblog Global Blockchain Industry Consortium](#). The consortium is led by [Petroteq](#), which is developing a blockchain-based supply change management platform through its subsidiary, PetroBLQQ. Once developed, Petroteq will offer the platform to oil and gas companies.
- Pemex believes blockchain will reduce costs and eliminate inefficiencies in its advanced oil processing and refining processes. As one of the world's largest petroleum producers, Pemex's implementation of blockchain is a significant development.

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