

December 14, 2017

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## K&L Gates Blockchain Energizer – Volume 19

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

By Molly Suda and Ben Tejblum

*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 \$1.4 billion was invested in blockchain startups in 2016 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, 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](#).*

### Blockchain-Powered Retail Loyalty Program to Incentivize “Eco-Friendly” Behavior

- A new company, CarbonX, aims to use blockchain to reward consumers for sustainable shopping choices. The company is a joint venture between the blockchain developer Consensys and Don Tapscott, a well-known blockchain entrepreneur.
- According to the [CarbonX website](#), the Company plans to purchase carbon credits on behalf of retailers and manufacturers and convert them into a digital token referred to as CarbonX Tokens. Consumers will then be able to sign up for the CarbonX rewards program and will receive CarbonX Tokens whenever they make carbon-friendly purchases from participating retailers. Such purchases may include anything from buying locally grown produce to purchasing an energy-saving household appliance.
- All transactions will be peer-to-peer and will occur over CarbonX’s blockchain-powered network, which is being developed using the Ethereum framework. The CarbonX Tokens will then be tradeable on the CarbonX blockchain network, and consumers will also be able to exchange the tokens for other carbon-friendly goods and services, other reward program points, or other digital currencies.
- According to a [recent article](#), low adoption rates and difficulty in tracking transactions often pose significant challenges for loyalty rewards programs. However, CarbonX believes that using blockchain will reduce overhead and administrative costs while also making the reward program more accessible to consumers around the world. Mr. Tapscott believes that using blockchain will enable CarbonX “to open up a billion-dollar marketplace for personal carbon trading.” The company also plans to record data on consumer purchasing choices in its network, which will be made accessible to CarbonX partner retailers to help them better attract and retain customers.

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- The CarbonX platform is not the first time a developer has turned to blockchain to help encourage sustainability. As reported in an [earlier version](#) of the *Blockchain Energizer*, the UK-based company Energi Mine recently launched a peer-to-peer blockchain-powered network designed to reward network participants who engage in energy-saving behavior.

### Blockchain Technology Being Deployed to Optimize the Oil and Gas Industry

- As blockchain technology continues to gain ground, more and more companies are exploring how the technology can be used to optimize existing industries. One such company is Petroteq, an oil and gas producer that [recently announced](#) the development of a blockchain platform aimed to address problems that the company identified while trying to develop oil processing and refining facilities around the world.
- According to a [recent press release](#), the Petroteq blockchain platform (referred to as Petrobloq) is being designed in partnership with First Bitcoin Capital Corp. as a supply chain management platform intended to exclusively serve oil and gas industry supply chain needs. The Petrobloq platform aims to streamline existing processes and reduce transaction costs for oil and gas industry participants doing business in the global markets, allowing platform users to realize cost savings and gain a competitive advantage in the industry during a period of price volatility and changing production levels.
- Blockchain may be able to improve other areas of the oil and gas industry, including: (1) facilitating the exchange of information with both regulators and joint venture partners, (2) reducing the risk of hacking and tampering, and (3) providing increased transparency in connection with company audits and due diligence.
- With development moving forward, Petroteq also [recently joined](#) the Enterprise Ethereum Alliance, the world's largest open-source blockchain initiative. According to the company's [press release](#), Petroteq views its membership as an important step towards developing transformative blockchain-powered solutions for the oil and gas industry.

### P2P Energy Trading Comes to South Korea

- South Korea has joined the growing list of countries that are testing blockchain-based peer-to-peer energy trading platforms. According to a [recent article](#), South Korea's Ministry of Science and ICT has partnered with Korea Electric Power Corporation to develop a blockchain-powered neighborhood electricity trading and electric vehicle charging platform.
- The platform is being developed with the goal of directly connecting prosumers and consumers and allowing them to trade excess energy in real time. Platform participants will use and receive "energy points" as compensation for transactions, with such points then being redeemable for cash, electricity, or time spent at electric vehicle charging stations.
- As noted above, the South Korean platform is the latest in a series of peer-to-peer blockchain trading platforms that are being developed and deployed around the globe. Similar platforms are being developed or tested in Australia, England, India, and the United States.

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