BLOCKCHAIN ENERGIZER VOL. 7

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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 healthcare 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, 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, please click here.

BLOCKCHAIN MAY HELP ADDRESS CYBER SECURITY CONCERNS IN THE ENERGY INDUSTRY

- According to a recent article by two members of the Energy Security Section of NATO's Emerging Security Challenges Division, blockchain technology may serve as a counter to cyber security threats in the energy industry. Historically, the energy industry has experienced more cyberattacks than almost any other industry. According to the authors, this is in part due to the industry's use of outdated software and centralized control systems, which are vulnerable to targeted attacks.
- Unlike a centralized database, a blockchain network is distributed such that the information stored on the blockchain is shared and synchronized across all computers in or parties to the network. Due to the distributed nature of the database, there is no central administrator or centralized data storage. Since the data does not exist in any single location, it is much more difficult for hackers to manipulate information stored in a blockchain. This provides an added layer of security not otherwise available for computer systems that rely on one centralized control center.
- The authors envision that blockchain technology can not only eliminate "code injection" and other malware attacks, but also provide tamper-proof, decentralized computer systems for running critical energy infrastructure, including power plants and oil refineries.
- While the authors caution that blockchain technology cannot address all cybersecurity threats, the ability of a blockchain network to make cyberattacks more difficult is an added benefit to the use of blockchain technology and should serve as welcome news to companies considering blockchain technology applications in the energy space.

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UNITED NATIONS RECOGNIZES THE POTENTIAL FOR BLOCKCHAIN TECHNOLOGY TO PROMOTE CLIMATE CHANGE ACTION

- According to a recent United Nations Framework Convention on Climate Change ("UNFCC") blog post, experts at last month's UN Climate Change Conference meeting in Germany have begun to explore blockchain technology as a means of tackling some of the challenges associated with climate change.
- According to the blog post, the UNFCC has identified several potential applications of blockchain technology to support climate action, including: (1) improving carbon emissions trading through the tracking of carbon asset transactions; (2) the development of blockchain-powered peer-to-peer or crowdfunding platforms to foster increased investment in support of climate action; (3) using blockchain technology to provide greater transparency regarding GHG emissions and to make it easier to track and report emission reductions; and (4) facilitating clean energy trading though the development of blockchain-powered trading networks.
- Some of the applications discussed by the UNFCC are already being developed and tested through pilot programs. For example, the Chinese blockchain company Energy Blockchain Labs is developing a blockchain-based green asset management program in connection with China's national carbon market and a blockchain-powered crowdfunding platform is already being used to promote investment in renewable energy resources in Africa.
- The UNFCC's discussion reflects the growing recognition of the potential for blockchain technology to facilitate global energy and environmental initiatives. The United Nations is also testing the use of blockchain technology in other areas. In May, the United Nation's World Food Programme used the Ethereum Blockchain to provide thousands of Syrian refugees with cryptocurrency-based vouchers that could be redeemed for food and supplies at participating markets.

INFOCAST BLOCKCHAIN WEBINAR

- Interested in learning more about blockchain? On July 12, the authors of the Blockchain Energizer will partner with Infocast to provide a one-hour webinar on blockchain technology and its applications in the energy space.
- Registration is free and may be accessed through the following link.

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