

BLOCKCHAIN ENERGIZER VOL. 10

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Energy Alert

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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 \$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 newsletter, please [click here](#).

BLOCKCHAIN-POWERED UTILITY-SCALE SOLAR INVESTMENT FUND LAUNCHES ICO

- The energy startup [Solar DAO](#) is developing a blockchain-powered investment fund that will allow investors to invest in solar photovoltaic generating facilities being developed around the globe. Interests in the investment fund are being offered through Solar DAO's ongoing initial coin offering ("ICO"), through which Solar DAO plans to sell up to 80 million digital tokens of its SDAO digital currency ("SDAO").
- According to [a recent article](#), Solar DAO will use the proceeds from its ICO to invest in utility-scale solar projects worldwide, and will then distribute the profits from such investments to the holders of SDAO tokens at the end of a four-year term. The Solar DAO network is built using Ethereum's blockchain platform, and SDAO token ownership will be recorded in a shared ledger and protected via public-private key encryption. Using Ethereum's smart contract functionality, the Solar DAO blockchain will then automatically distribute profits to record owners of SDAO tokens based on each owner's respective share.
- Solar DAO is not the only company to issue an ICO related to the development of energy projects. [SunContract](#) recently completed an ICO for a blockchain platform that will be developed to create peer-to-peer electricity trading marketplaces in Europe and the Middle East, and [WePower](#) is in the process of developing a similar marketplace (and associated ICO) focused on renewable energy.
- As the pace of ICO fundraising [continues to increase](#), regulators have begun to weigh in on how, and in what circumstances, ICOs should be regulated. On July 25, 2017, the U.S. Securities and Exchange Commission ("SEC") issued an investigative report concluding that tokens issued during an ICO could be considered securities for the purposes of U.S. federal securities regulation. A summary of the implications of the SEC's report for both investors and ICO issuers is [available here](#).

ISDA ISSUES WHITEPAPER ON SMART CONTRACTS AND DISTRIBUTED LEDGER TECHNOLOGY

- The International Swaps and Derivatives Association ("ISDA") [recently issued](#) a whitepaper addressing the use of smart contracts and distributed ledger technology for derivatives trading, in which it suggested that smart-contract code could be used in the near future to automate portions of contracts that do not require subjective interpretation.
- According to the whitepaper, certain operational clauses within contracts (for example, clauses requiring a certain payment on a certain date) could be automated using smart-contract code and executed through a blockchain network. Such automation would require changing ISDA's existing definitions to ensure that actions, such as payments and deliveries, are defined in such a way as to allow them to be reproduced as code and interpreted by the network. ISDA notes, however, that even if certain clauses are automated, the contracts themselves will likely remain written in natural legal language, in part due to the difficulty in converting nonoperational clauses that require subjective interpretation into digital code.
- The whitepaper concludes that although smart contracts have "great potential," pre defined standards will be required to ensure that smart-contract code is operable across multiple firms and platforms. ISDA notes that its Market Infrastructure and Technology Oversight Committee intends to facilitate development of such standards, and that other working groups have also been set up to address these efforts.
- ISDA's findings support a growing recognition among industry participants that, while blockchain and smart contracts have the potential to reshape industries, large scale implementation of blockchain technology will require developing industry-wide standards to facilitate interoperability and seamless integration.

BANK IN THAILAND TO USE BLOCKCHAIN TO DIGITIZE LETTERS OF GUARANTEE

- Despite the challenges associated with implementation, Thailand's KBank [has announced](#) that it will use blockchain technology to move away from issuing paper-based letters of guarantee.
- According to a recent press release, the bank's goal is to digitize 35% of its letters of guarantee issued by the end of next year, with approximately 5% being executed using a blockchain-powered network built using the Hyperledger platform. The hope is that the blockchain platform, which was designed to be scalable to meet the bank's needs, will reduce transaction costs and facilitate new business opportunities between banks in Thailand.
- The concept of using blockchain technology to issue and store letters of guarantee was initially developed through the Bank of Thailand's regulatory sandbox, which allowed KBank to test the application and ensure its feasibility in a relaxed regulatory environment. As reported in the [previous issue](#) of the Blockchain Energizer, several other countries have developed similar sandboxes to test the use of blockchain and other emerging technologies, and the success of the Bank of Thailand's sandbox may cause additional countries to follow suit.

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