

THE BLOCKCHAIN ENERGIZER

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A bi-weekly 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 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 newsletter, please click [here](#).

Blockchain-Powered Crowdfunding Brings Solar Energy to Africa

- As Africa works towards ensuring greater access to electricity, blockchain technology is emerging as a means of facilitating energy investment. Based in South Africa, the crowdfunding platform Sun Exchange uses a blockchain-powered network in order to secure financing for solar projects.
- The platform allows investors all over the world to invest in the projects by purchasing portions of the solar facility via bitcoin micro-transactions. Ownership interests in the projects are recorded on a blockchain-powered ledger, and investors are then automatically paid their share of project revenue (in bitcoin) once a project is placed in-service. [According to the founder](#) of Sun Exchange, the use of bitcoin and a blockchain network helps ameliorate the perceived risk associated with investing in Africa.
- Blockchain technology presents a number of opportunities for fostering investment through peer-to-peer micro-transactions, particularly in emerging or developing markets.

Illinois Considering Blockchain Technology to Streamline Government Programs

- Illinois is joining a number of states exploring applications of blockchain technology in the public sector. In a [recent interview](#), Illinois' Chief Technology Officer Mike Wons explained that Illinois is currently developing several blockchain technology-powered platforms intended to streamline government interactions with state businesses and citizens.
- According to Mr. Wons, the lack of a state government budget has forced Illinois to look at cost-efficient approaches to modernize government systems, and Illinois recently put out

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a request for information to solicit ideas for using blockchain. As a result, Illinois is currently working on five proof-of-concept projects to deliver in 2017, including a clean energy marketplace for trading energy credits.

- Illinois is not the only state considering blockchain technology. Last year, Delaware launched the [Delaware Blockchain Initiative](#) in order to provide “an enabling regulatory and legal environment for the development of blockchain technology.”

Arizona Paves the Way for Smart Contracts

- Arizona Governor Doug Ducey [recently signed into law HB 2417](#), which governs the enforceability of blockchain technology-powered smart contracts in commerce.
- The statute broadly defines both blockchain technology and smart contracts, with the latter defined as “an event-driven program, with state, that runs on a distributed, decentralized, shared and replicated ledger and that can take custody over and instruct transfer of assets on that ledger.”
- The statute provides that a transaction cannot be declared invalid or unenforceable solely because it contains a smart contract term. The statute also provides additional clarification with respect to the ownership of information stored in a blockchain network.
- The Arizona law is one of the first of its kind in the United States and may provide a roadmap for other states looking to regulate the use of smart contracts. Legal certainty with respect to the enforceability of smart contracts is relevant in the energy space, as many of the energy-specific blockchain technologies in development, such as electric vehicle charging and microgrid transactions, will likely rely heavily on smart contract functionality.

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