



ENGIE and LEDGER partner to develop the first blockchain hardware securing data at the source of energy production

October 10, 2018 - Blockchain is opening a world of new opportunities in the energy sector and one of the major challenges is to insert trustworthy data into the blockchain. ENGIE and LEDGER have signed an agreement to develop the first secured, autonomous and blockchain agnostic¹ oracle for the energy sector.

The hardware oracle² will measure data at the source of green energy production (such as wind turbines, solar panels or hydropower) and safely record it into the blockchain to be used for decentralized applications.

This initial solution is the cornerstone of all future energy services using blockchain, including energy traceability, peer-to-peer trading and crowdfunding.

The device will be able to connect different blockchains and several decentralized applications at the same time. As security is key to having trustworthy data, the device will include a secure element and an anti-tampering solution, combining ENGIE's expertise in energy and LEDGER's expertise in blockchain environment security.

ENGIE (with its research centre based in Saint-Denis) and LEDGER have developed and successfully tested prototypes that have been installed on several wind and hydro assets. They have allowed ENGIE to build its own traceability and certification platform for its clients. Such positive results are the breeding ground for ENGIE & LEDGER's innovative development: a unique blockchain-agnostic hardware compatible with most important blockchain solutions and platforms used in the energy world.

"Investing in blockchain technology definitely serves ENGIE's ambition to lead the energy transition; green energy traceability and data reliability are at the heart of this challenge", says Edouard Neviaski, CEO of ENGIE's Global Energy Management Business Unit, which manages the Group's activities on energy markets. "We do not only provide our clients with green energy, we also develop innovative and technological solutions to support them in their energy transition".

"ENGIE's embrace of blockchain technology is forging a critical path forward in the future of energy. By enabling the decentralized collection of valuable green energy data, this blockchain-powered oracle has the potential to lead to numerous sustainable energy solutions," says Eric Larchevêque Chief Executive Officer at Ledger. "As the world leader in blockchain infrastructure security, LEDGER is proud to have partnered with ENGIE on this project to ensure best in class security for this technology".

¹ the hardware device will be compatible with most blockchains

² <https://blockchainhub.net/blockchain-oracles/> and <https://www.mycryptopedia.com/blockchain-oracles-explained/>

About LEDGER:

Founded in 2014, [Ledger](#) is a leader in security and infrastructure solutions for cryptocurrencies and blockchain applications. Headquartered in Paris and with offices in San Francisco, London, Hong Kong and Vierzon, Ledger's team of 160 professionals develop a variety of products and services to safeguard crypto assets for individuals and companies - including the Ledger hardware wallets line already in 165 countries. Ledger products are developed around the combination of BOLOS™, a proprietary operating system specifically designed to secure crypto assets, and secure hardware (Secure Element chips, Hardware Security Modules).

Ledger has grown into the clear leader in crypto assets security, having sold 1.3m+ Ledger devices worldwide, launching enterprise solutions for financial institution with the [Ledger Vault](#), and now addressing a unique security offer designed for the IoT market.

About ENGIE:

We are a global energy and services group, focused on three core activities: low-carbon power generation, mainly based on natural gas and renewable energy, global networks and customer solutions. Driven by our ambition to contribute to a harmonious progress, we take up major global challenges such as the fight against global warming, access to energy to all, or mobility, and offer our residential customers, businesses and communities energy production solutions and services that reconcile individual and collective interests. Our integrated - low-carbon, high-performing and sustainable - offers are based on digital technologies. Beyond energy, they facilitate the development of new uses and promote new ways of living and working. Our ambition is conveyed by each of our 150,000 employees in 70 countries. Together with our customers and partners, they form a community of imaginative builders who invent and build today solutions for tomorrow. 2017 turnover: 65 billion Euros. Listed in Paris and Brussels (ENGI), the Group is represented in the main financial (CAC 40, BEL 20, Euro STOXX 50, STOXX Europe 600, MSCI Europe, Euronext 100, FTSE Eurotop 100, Euro STOXX Utilities, STOXX Europe 600 Utilities) and extra-financial indices (DJSI World, DJSI Europe and Euronext Vigeo Eiris - World 120, Eurozone 120, Europe 120, France 20, CAC 40 Governance).

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