Press Information

Kyocera and LO3 ENERGY to Demonstrate Blockchain-Managed Virtual Power Plant

Test VPP to combine companies' peer-to-peer network technology and renewable energy products for improved energy distribution

Kyoto/London, March 12th, 2019. Kyocera and New York-based LO Energy Inc. today announced a joint project to test the feasibility of a blockchain-managed virtual power plant (VPP) utilizing a peer-to-peer[1] distributed consensus network. The test started February 28th, 2019 at Kyocera's Yokohama Nakayama Office in Kanagawa Prefecture, Japan, where a small VPP was installed using the company's solar photovoltaic (PV) modules and batteries. The energy will be controlled through LO3 Energy's distributed ledger technology to log and manage energy flow. LO3's blockchain technology is used for verifying and recording transactions, enabling consumer "sharing" of energy they produce with their own solar panels via a microgrid, which can reduce the burden on the larger energy grid.

Testing site at Yokohama Nakayama Office

[1] Peer-to-peer systems connect computers equally through a network. On a peer-to-peer energy platform, prosumers generating energy through a renewable resource can transact energy autonomously with consumers on the platform.

Background and Purpose

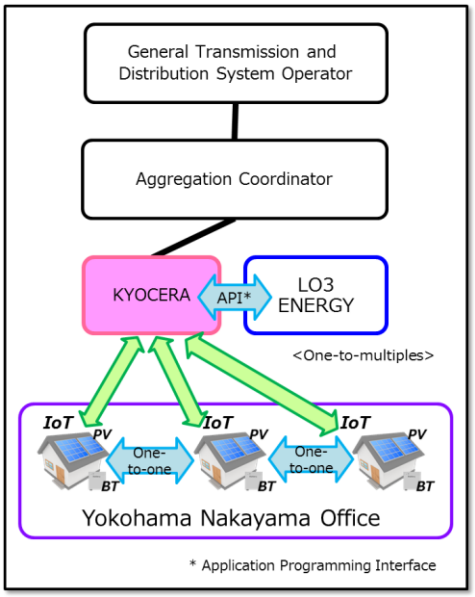
In Japan, where renewables play a major role in the government's energy portfolio plans, a dedicated research initiative is under way to create new "smart" energy networks. Kyocera has continually provided solar power generating systems and storage batteries for Japan's government-led VPP test projects, developing new expertise in remotely controlled distributed power resources. By combining Kyocera's expertise with LO3 Energy's blockchain technologies, the companies will evaluate VPPs that promote a low-carbon society without fuels or CO_2 emissions.

"Kyocera is committed to developing low-carbon solutions that maximize renewable energy resources," said Hironao Kudo, Deputy General Manager of Kyocera Corporation's Corporate R&D Group. "We are excited to be the company in the area of grid management in Japan to collaborate with LO3 Energy, which has consistently proven its blockchain technologies all around the world." Kyocera entered the renewable energy field in the 1970s with solar photovoltaic (PV) modules and has continued to diversify its business into storage batteries and HEMS solutions.

"The need to reduce carbon emissions is exerting a profound impact on energy providers worldwide," said Lawrence Orsini, CEO of LO3 Energy. "Using distributed ledger technologies, our networks enable the micro energy transactions needed to meet this challenge. We believe the synergies between Kyocera and LO3 Energy will produce a new generation of virtual power plants that can accelerate Japan's transition to a low-carbon society."

VPP Test Project Overview

Kyocera's solar power generating systems and storage batteries will be installed in the Yokohama Nakayama Office to simulate separate power users. The companies will further develop their VPP technology using data from IoT sensors to increase the accuracy of distributed power sources used by the project's simulated Transmission and Distribution System Operators.



In addition, the companies will examine power-control results using LO3 Energy's expertise in blockchain technologies that have been proven worldwide. LO3

Energy's peer-to-peer platform helps control power generation and availability among connected users, which facilitates an effective test environment. Through this testing, the companies will develop new ways to expand the efficiency of existing energy transmission and distribution networks in Japan and worldwide.

About LO3 Energy Inc.

LO3 Energy Inc., a Brooklyn, NY-based company, is building a blockchain-based platform to enable decentralized business models and innovative technologies related to energy, cleantech and utility systems. The LO3 team has deep expertise in design, architecture, development, prototyping, and testing of cutting-edge distributed energy, computing and peer-to-peer distributed consensus networks. The company builds blockchain-based tools and projects to support and accelerate the proliferation of distributed energy, utilities and computation sharing economy of the future. For more information about blockchain for energy, visit www.LO3energy.com.

For more information on Kyocera: www.kyocera.co.uk

About Kyocera

Headquartered in Kyoto, Japan, Kyocera Corporation is one of the world's leading manufacturers of fine ceramic components for the technology industry. The strategically important divisions in the Kyocera Group, which is comprised of 264 subsidiaries (as of March 31, 2018), are information and communications technologies, products which increase quality of life, and environmentally friendly products. The technology group is also one of the oldest producers of solar energy systems worldwide, with more than 40 years of experience in the industry.

The company is ranked #522 on Forbes magazine's 2017 "Global 2000" listing of the world's largest publicly traded companies. With a global workforce of over 75,000 employees, Kyocera posted net sales of approximately €12.04 billion in fiscal year 2017/2018. The products marketed by the company in Europe include printers, digital copying systems, microelectronic components, and fine ceramic products. The Kyocera Group has two independent companies in the United Kingdom: Kyocera Fineceramics Ltd. and Kyocera Document Solutions.

The company also takes an active interest in cultural affairs. The Kyoto Prize, a prominent international award, is presented each year by the Inamori Foundation — established by Kyocera founder Dr. Kazuo Inamori — to individuals and groups worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (converted at approximately €764,000 per prize category).

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