Yaskawa Invests in Large-Capacity Kinetic Energy Storage Company, Teraloop

Waukegan, IL. Yaskawa Electric Corporation has completed a strategic investment in Helsinki-based Teraloop, a startup grid- and utility-scale kinetic energy storage company. This equity investment aims to help Teraloop accelerate the steps needed to bring its patent-pending storage solution to the market within the next two years. The financing will allow the prototype to be finalized for a complete simulation in commercial working conditions.

This latest equity investment supports Yaskawa's continued focus to achieve its long-term "Vision 2025" business plan in its chosen Clean Power business area. For this, Yaskawa has a venture investment scheme that invests in new and upcoming innovative companies, such as Teraloop, which will further strengthen Yaskawa's engagement in developing its international energy storage business.

Although global policies are driving the uptake of various renewable energy sources at a growth of 15% per annum, a power grid that relies solely on renewable energy is immensely challenged. Solar, wind and wave power are all highly dependent on fluctuating weather conditions.

Both Yaskawa and Teraloop are optimistic that Teraloop's energy storage system could become the leading solution to provide reliable renewable energy to the grid. This would enable a crucial step towards a sustainable energy mix.

"This investment enables both companies to focus on developing core competences while providing strong and commercially viable energy storage solutions with better synergy together," says Hiroyuki Ougi, Corporate Senior Vice President, General Manager, System Engineering Division of Yaskawa.

"Teraloop is delighted to have Yaskawa as an investor. As a company with a strong pedigree in mechatronics and a solid track record in working with new technology firms, Yaskawa brings knowledge and outreach to Teraloop's development plans, and we will work together to commercialize our technology effectively," says Edward Ridgway Watt, CEO of Teraloop.

"It is really very rewarding to see Yaskawa investing further in Finland. This is good proof that renewable energy and energy storage technologies are in line with the corporation's growth plans," says Jukka-Pekka Mäkinen, President and CEO of The Switch, another Yaskawa company, based in Finland.

The investment is part of Yaskawa's start-up investment program that aims to create business synergies in Mechatronics, Clean Power and Humatronics, the main focus areas for "Vision 2025". Further investments in start-up companies worldwide are currently being considered. These include companies with specializations and cutting-edge technologies in the fields of the Internet of Things (IoT), artificial intelligence, factory automation networking, as well as applications in next-generation robotics, energy savings and medical and welfare.



About Teraloop

Teraloop Ltd, based in Helsinki, Finland, develops breakthrough technology for large-scale kinetic energy storage used in grid and utility applications. Founded in 2014, Teraloop's patent-pending core technology has been applied to a kinetic energy storage system, which builds on existing proven and deployed technologies. The result is an innovatively configured system for grid-scale storage with a minimized visual and environmental footprint.

Currently, the company is implementing a grid-connected industrial prototype in partnership with a consortium of Nordic technical co-contractors as a step towards building a commercial pilot system in 2018. Future commercial systems will range from the Teraloop10 ($10 \, MW / 10 \, MWh$) to the Teraloop100 ($100 \, MW / 100 \, MWh$). www.teraloop.org

About Yaskawa Europe

Yaskawa was founded in Kitakyushu, Japan in 1915. At first, it delivered motors and conveyor systems to coal mines. In its one hundred years, the company has grown its turnover to EUR 3.6 billion and employs nearly 14,500 people in 29 countries throughout the world.

Based in Eschborn near Frankfurt, Yaskawa Europe operates three divisions – Drives & Motion (inverter drives and motion control), Robotics (industrial robots) and VIPA Controls (PLC control) – and services the markets of Europe, Africa, the Middle East and the CIS countries.

About The Switch

The Switch, a Yaskawa company, is a pioneer in advanced drive train technology. The company has an installed base of over 13 GW of megawatt-class permanent magnet machine and converter packages. The main focus areas are marine, wind and special industrial solutions. The company's innovative drive trains make an impact on profitable power generation and energy use, with the ultimate goal of lowering the cost of energy and operations. www.theswitch.com