

PRESS RELEASE

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CONNECTED ENERGY, SECOND LIFE BATTERY ENERGY STORAGE SPECIALIST, SECURES AN ADDITIONAL £15 MILLION FROM INVESTORS

A further highly successful round of investment for Connected Energy has secured £15m from five new major investors and will be welcome news to all those keen to see increased energy security, improved use of clean energy and extended lifetime use of electric vehicle batteries in energy storage systems (BESS).

Caterpillar Venture Capital Inc., the Hinduja Group, Mercuria, OurCrowd and Volvo Energy have joined existing investors Engie New Ventures, Macquarie, and the Low Carbon Innovation Fund with a total investment of £15m, to back this world leading venture on the energy storage landscape. The investment will enable Connected Energy to scale-up its operations and move into utility scale project development.

With its HQ in Newcastle upon Tyne and Technical Centre in Norfolk interest in Connected Energy is particularly high because it is one of only a handful of companies in the world to have proven that second life vehicle batteries can be used in commercial battery storage systems, with the huge environmental benefit this brings.

Connected Energy already has sixteen operational systems across Europe in Belgium, Germany, the Netherlands and the UK with its largest at Cranfield University in Bedfordshire, England.

Here the system allows the site to balance its energy behind the grid, accommodate a newly enlarged solar farm and an air source heat pump on the district heating to reduce reliance on the gas-combined heat and power system (CHP).

At other sites such as those in Germany, Connected Energy's units are helping to balance the energy supply where EV chargers are used on either side of a motorway.

These demonstrate the important role of battery energy storage in providing energy security and stability and reducing reliance on fossil fuels, and also that they function perfectly with second life batteries.

This next phase of investment will enable Connected Energy to scale up its technology and operations in response to a growing energy storage market and increasing international availability of second life batteries. It will also facilitate the in-house development of the company's first large scale M-STOR system which is planned to be around 20MW and 40MWh, employing a contracted 'flow' of batteries from multiple OEMs to provide long term operational services to customers.

With an estimated 6.7 million pure EVs operational worldwideⁱ and 34.7 million predicted globally by 2030ⁱⁱ, the potential for battery reuse is vast, as is the need to ensure the resources in the batteries are used effectively. With this investment Connected Energy aims to scale up its business to utilise a predicted ramp-up in 2nd life battery availability in 2024/25.

According to Connected Energy CEO Matthew Lumsden, when batteries are around 25% degraded they are often considered unsuited to life in a vehicle but still have sufficient capacity for up to ten years' more use in a battery energy storage system (BESS).

Over its lifetime in operation, a second life BESS can save an additional 450 tonnes per MWh of CO₂ⁱⁱⁱ equivalent compared to using first life lithium-ion batteries, figures which explain the appeal of Connected Energy to investors and customers keen to support carbon reduction targets with meaningful action.

Supporting the use of renewable energy sources, battery energy storage has been described as the ‘true bridge to a clean energy future’, and the UK is one of the fastest growing markets in the world. In 2020 capacity increased from 1.7GW of grid-connected battery storage to a planned 13.8GW in 2021, and revenue per MW hour doubled over the same period from £63k per MW £123k per MW hour.ⁱⁱⁱ

Rising fuel prices have caused many organisations to consider the use of energy storage to reduce costs, increase self-consumption and generate new revenue as well as solve problems such as supply constraints. As a consequence, Connected Energy has already booked more projects in the first three months of 2022 than in any previous year.

“In order to grow the second life battery industry, strong pan-value chain relationships will be critical to Connected Energy as it expands, and the company’s new investors will complement this effort” says Lumsden.

“This marks a key gateway for our business. Our group of investors now span battery supply through to project deployment and monetisation, and critically this will enable us to plan and manage technology and project development to maximise the volume of batteries that are redeployed in second life applications.”

Comments from investors illustrate the significance of Connected Energy’s solution to the green energy and transport transition.

Joachim Rosenberg, President Volvo Energy said: “There is a great deal of untapped potential in the second-life use of batteries. This forward-leaning investment aims to facilitate the scaling-up of second-life battery energy storage systems and further secure circular business opportunities for the forthcoming ramp-up in Volvo Group’s second-life battery returns”

He continues: “Together with Connected Energy, we will minimize the environmental impact of the batteries that has powered Volvo Group applications. By repurposing the batteries, we obtain the full value from them – from a climate, environment and business perspective.”

Jihad Salahuddin, Caterpillar Senior Investment Manager, CVCI said: “Connected Energy’s technology to repurpose EV batteries has demonstrated strong promise in terms of its current performance and upside capabilities. We are excited about this investment and see it as an important element of our strategic roadmap in the battery circular economy and our long-standing Enterprise commitment to sustainability,”

“Amid the rapid electrification of the transport sector and the growing intermittent renewable sources of power supply, we are joining with Connected Energy to provide needed sustainable flexibility solutions in energy markets,” said Alexis Flandre, Managing Director of Energy Transition at Mercuria, “We look forward to working with Connected Energy and bringing our power trading and battery metals supply chain expertise.”

Matthew Lumsden concludes:

“We couldn’t be more pleased to welcome our new investors on board and look forward to forging a path to increasing the sustainability of both electric vehicles and grid connected energy storage. I’d also like to thank our fantastic team at Connected Energy whose continuing hard work and commitment is acknowledged by this investment.”

Turquoise International, UK’s leading ClimateTech merchant bank, acted as corporate finance adviser to Connected Energy in the fundraising. -ends-

About Connected Energy

[Connected Energy](#) is a world leading innovator of energy storage systems that utilise second-life electric vehicle batteries. The company's E-STOR and M-STOR units have a modular and scalable design that can be adapted to control any electric vehicle battery pack.

Its systems can elongate the life of an EV battery pack by up to an additional 10 years and provide grid service revenues, solar optimisation, EV charging support, import capacity avoidance, peak shaving and micro grid balancing services. Systems can provide a positive carbon benefit of 450tCO₂e for every 1MWh installed compared with a first life BESS.

Optimal system performance is maintained through the Connected Energy Management Platform which provides customers with interactive management information. Connected Energy's portfolio of projects in operation and development range from 90kWh to 40MWh across the UK and Europe.

For more information visit: www.c-e-int.com

www.volvogroup.com

Volvo Energy is a business area within the Volvo Group dedicated to provide essential support and infrastructure during the first-life, i.e. when batteries are mounted on vehicles, whilst subsequently securing reliable and sustainable second-life opportunities prior to battery recycling. Consequently, Volvo Energy supports to optimize first-life, creates and prolongs the second-life opportunities thereby expanding the value creation from a climate, environment and business perspective

www.caterpillar.com

Caterpillar is supporting customers during the energy transition to a reduced-carbon future through investments in new products, technologies and services. The company currently offers battery-powered equipment for the mining, construction, energy and transportation industries and recently announced seven sustainability goals to achieve by 2030, including that 100% of Caterpillar's new products through 2030 will be more sustainable than the previous generation.

<https://www.hindujagroup.com/>

The Hinduja Group is one of India's premier diversified and transnational conglomerates, employing about 200,000 employees across 38 countries and owns businesses in automotive, information technology, media, entertainment, and communications, banking and financial services, infrastructure project development, cybersecurity, oil and specialty chemicals, power, real estate, trading, and healthcare. Founded over a hundred years ago by Shri PD Hinduja whose credo was "My duty (dharma) is to work so that I can give", it supports charitable and philanthropic activities across the world through the Hinduja Foundation.

www.mercuria.com

www.ourcrowd.com

ⁱ <https://www.statista.com/topics/1010/electric-mobility/>

ⁱⁱ <https://www.iea.org/reports/global-ev-outlook-2020>

ⁱⁱⁱ <https://c-e-int.com/news/blog-posts/calculating-the-carbon-of-making-a-bess#>