

NEC Energy Solutions Commissions 50 MW of Grid Energy Storage Facilities in UK for VLC Energy

Facilities represent largest portfolio of utility-scale battery energy storage systems connected to UK grid

January 8, 2018 – Westborough, MA, USA – NEC Energy Solutions (NEC ES), a wholly-owned subsidiary of NEC Corporation, announced today it has completed the commissioning of a total of 50 MW of energy storage projects in the UK with VLC Energy, a joint venture between Low Carbon, a renewable energy investment company, and VPI Immingham, owner of one of the largest combined heat and power plants in Europe and part of the Vitol Group.

The 50MW portfolio, which is now fully operational and includes a 40 MW facility in Glassenbury in Kent and a 10 MW installation in Cleator in Cumbria, represents the largest portfolio of utility-scale battery energy storage systems connected to the UK grid. The Cleator and Glassenbury sites secured two contracts with National Grid in August 2016 for battery energy storage systems to provide Enhanced Frequency Response (EFR) to the UK system operator.

NEC ES provided turnkey engineering, procurement and construction (EPC) services which included its GSS® end-to-end grid storage solution, and was contracted to operate the sites to provide the EFR service directly to National Grid. Energy storage operation for EFR will be handled by an automated operating mode designed specifically for the UK frequency response service, and is part of the AEROS® controls system, NEC's proprietary energy storage control software. NEC ES will also provide warranty service and maintenance for ten years to maintain all required operating capabilities to satisfy the terms of the EFR contracts.

Justin Thesiger, Operations Director at Low Carbon, said: "The two new battery parks at Glassenbury and Cleator will ensure stability within the local grid and that the electricity demands of residents can be consistently met, including at times of high demand. Sites such as these are fundamental to our energy security and also to realizing the full potential of renewable electricity generation that hit record levels earlier this year."

"We are thrilled to be a part of these two exciting projects with VLC Energy," said Steve Fludder, chief executive officer of NEC Energy Solutions. "In addition to providing our GSS® grid storage systems, VLC Energy has entrusted us to provide the EFR service directly to National Grid. This is a true testament to the quality of our products, our people and our reputation."

About NEC Energy Solutions

NEC Energy Solutions designs, manufactures, and integrates smart energy storage solutions for the electric grid and applications with critical power needs. Its megawatt-scale energy storage and control systems provide greater stability to the grid while maximizing renewable generation, while in telecom, datacenter, and other industrial applications, its high performance lithium-ion battery systems provide better value than traditional lead-acid batteries in tough, critical power applications. Learn more at www.neces.com.

About Low Carbon

Low Carbon is a privately owned investment company committed to the development and operation of renewable energy power production. Low Carbon invests into both renewable energy developers and projects across a range of renewable energy technologies including solar PV, wind, anaerobic digestion, combined heat and power, concentrated solar power, energy efficiency, waste to energy and energy storage. Low Carbon has a strong management team with a proven track record in the development, construction, financing and management of renewable energy assets. Low Carbon remains involved in the projects for the long term with a dedicated asset management team that manages assets on balance sheet and for third parties (unlisted and listed). www.lowcarbon.com

About VPI Immingham

VPI Immingham is a combined heat and power (CHP) plant near Immingham, on the South Bank of the river Humber. It is one of the largest CHP plants in Europe, capable of generating 1,240 MW – about 2.5% of UK peak electricity demand and up to 930 tonnes of steam per hour, which is used by nearby oil refineries to turn crude oil into products such as gasoline.

It is part of the Vitol Group, an energy and commodities company. Vitol's primary business is the trading and distribution of energy products globally – it trades over six million barrels per day of crude oil and products and, at any time, has 200 ships transporting its cargoes.

Vitol's clients include national oil companies, multinationals, leading industrial and chemical companies and the world's largest airlines. Founded in Rotterdam in 1966, today Vitol serves clients from some 40 offices worldwide and is invested in energy assets globally including; circa 15.5mm3 of storage across six continents, 390kbpd of refining capacity and Shell-branded downstream businesses in 16 African countries, as well as Australia. Revenues in 2015 were \$168 billion. www.vitol.com

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