## Western Power Distribution Selects Hitachi for Smart Grid Initiative

First Deployment of Hitachi's Dynamic Voltage Control System in Europe

LONDON, April 20, 2011 – Hitachi Europe Limited, Smart Grid Venture (Hitachi) today announced that it has concluded an agreement with Western Power Distribution (South West) plc and Western Power Distribution (South Wales) plc (WPD) for the supply of a Dynamic Voltage Control System for a Smart Grid demonstration project under the UK's Low Carbon Networks (LCN) Fund Tier One, established by Ofgem, the UK Energy Regulator. The project aims to utilise Hitachi's advanced power electronics and control systems to reduce voltage fluctuations on distribution lines where renewable energy is being connected.

The three-year project will begin this summer and will involve up to four sites in South West England and South Wales. In the first phase of the project, a single D-STATCOM will be tested on an 11kV distribution line. The D-STATCOM utilises advanced IGBT technology to provide continuous reactive power to the network, compensating for voltage rise and flicker caused by the intermittency inherent in renewable energy generation. The second phase will involve a further three D-STATCOM units controlled by Hitachi's Voltage and Reactive Power Control System (D-VQC).

Hitachi anticipates that the systems, which can react to changes in a matter of milliseconds, will significantly minimise voltage fluctuation and be a more economical solution for Distribution Network Operators (DNOs) than strengthening or replacing network lines. Hitachi's D-STATCOM was initially developed in Japan as part of research projects aimed at integrating solar photovoltaic into distribution networks. The Smart Grid project with WPD in the UK will represent Hitachi's first demonstration of voltage control technologies in Europe.

Commenting on the agreement, Akira Shimizu, Managing Director of Hitachi Europe said "Hitachi is proud to be part of this project with Western Power Distribution, and we are delighted with the initiative by Ofgem to support the trialling of new technologies, operating and commercial arrangements for DNOs through its Low Carbon Networks Fund".

Phil West, Policy Manager at WPD added: "The commitment already demonstrated by Hitachi in developing this project is greatly appreciated and we look forward to working together to gain and share new learning on area voltage control, a topic vital for facilitating deployment of renewable energy."

"The Smart Grid demonstration project is a critical step in developing further Hitachi's Social Infrastructure Business in Europe" commented Andres Larriera, Head of Hitachi Europe's Smart Grid Venture and responsible for Group Business Development activities in New Energy for European markets. "Hitachi's capabilities in combining power engineering with information technology make us a leading potential supplier of Smart Grid solutions for distribution network operators as Member States move to a low carbon economy."

Hitachi expects significant business growth for dynamic voltage control systems in Europe, as more renewables are connected to distribution networks driven by Feed-In Tariffs, in particular in rural areas, and as the business case for new smart grid technologies begins to deliver value for money for DNOs and their customers.

Andres Larriera continued: "The project will also provide valuable learning for the wider energy industry at EU level and other parties. More intelligent solutions are required by distribution electricity networks to be able to accommodate increasing amounts of distributed generation driven by EU 20-20-20 climate change goals."

Hitachi's solutions, developed by the Information & Control Systems Company of Hitachi, Ltd., Japan, form part of the company's overall solutions for the Smart Grid market. While there are great benefits for society and the environment in adopting low carbon electricity generation, this must be effectively managed to ensure that consumers continue to receive a reliable electricity supply at a sustainable cost. Hitachi's solutions cover the entire value chain from generation to usage and are developed as part of the company's commitment to contribute to society though the development of superior, original technology and products.

## About Hitachi Europe Ltd.

Hitachi Europe Ltd., is a wholly owned subsidiary of Hitachi, Ltd., Japan. Headquartered in Maidenhead, UK, it has operations in 11 countries across Europe, the Middle East and Africa and employs approximately 460 people.

Hitachi Europe comprises of nine business areas: rail systems; power and industrial systems; information systems; digital media and consumer products; display products; industrial components and equipment; air conditioning and refrigeration systems; manufacturing systems; and procurement and sourcing. Hitachi Europe also has three Research and Development laboratories and a design centre. For more information about the company, please visit http://www.hitachi.eu.

## About Hitachi, Ltd.

Hitachi, Ltd., (NYSE: HIT / TSE: 6501), headquartered in Tokyo, Japan, is a leading global electronics company with approximately 360,000 employees worldwide. Fiscal 2009 (ended March 31, 2010) consolidated revenues totaled 8,968 billion yen (\$96.4 billion). Hitachi will focus more than ever on the Social Innovation Business, which includes information and telecommunication systems, power systems, environmental, industrial and transportation systems, and social and urban systems, as well as the sophisticated materials and key devices that support them. For more information on Hitachi, please visit the company's website at <a href="http://www.hitachi.com">http://www.hitachi.com</a>.

## **About Western Power Distribution**

Western Power Distribution is the electricity distribution network operator for the Midlands, South Wales and the South West. The company delivers electricity to more than 7.6 million customers over a 55,300 sq kms service area. The network consists of 216,000 kms of overhead lines and underground cables, and 184,000 substations.

Media enquiries for Western Power Distribution:
Sharon Cross
Western Power Distribution
+44 117 933 2222
scross@westernpower.co.uk

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