

**FOR IMMEDIATE RELEASE**

**Hitachi ABB HVDC Technologies, Ltd. commences business operations  
for HVDC in Japan**

Tokyo, October 15, 2015 --- Hitachi, Ltd. (TSE: 6501 / "Hitachi") and ABB, the leading power and automation technology group, today announced the completion of the process to establish a joint venture company, Hitachi ABB HVDC Technologies, Ltd., for high-voltage direct current (HVDC<sup>\*1</sup>) transmission in Japan. Hitachi ABB HVDC Technologies, Ltd. will commence operations in November 2015. The company will provide ABB's latest technology to HVDC projects on which Hitachi is the prime contractor, offering total services for direct current (DC) systems from design to engineering and equipment supply as well as after-sales service.

Driven by the massive development of renewable energy and reforms to the electric power system in Japan, and the need to strengthen and better integrate the different electrical systems in Japan, use of HVDC transmission is expected to be increasingly deployed for applications such as regional interconnections in the transmission grid and grid connections for offshore wind power integration. In particular, it is anticipated that greater use will be made of VSC-HVDC<sup>\*2</sup>, which is already widely used across the world.

Hitachi ABB HVDC Technologies, Ltd. intends to contribute to high-quality and stable electricity supplies in Japan by combining the strengths of both companies such as Hitachi's sales network, project management know-how, and quality assurance processes with leading-edge HVDC technology and system integration capability from ABB.

\*1: HVDC (High-Voltage Direct Current transmission) is a technology used mainly for transmitting electricity between two grid systems. The supply side power is converted from alternating current (AC) to direct current (DC) before being transmitted, and it is then converted back to AC in the receiving side system for use. The system is ideal for long-distance transmissions due to its ability to minimize electricity losses and to its lower space requirements and construction costs. It is also well suited for interconnections between two grids different frequencies.

\*2: VSC-HVDC (Voltage Source Converter High-Voltage Direct Current transmission) : A HVDC system with AC/DC converter using power semiconductor devices (IGBTs, etc.) that can be switched on and off at any time (IGBTs, etc.). There are less restrictions, compared to LCC type, as regards the power grid for its installation, and it has considerable benefits for grid stabilization, for example with respect to supplying reactive power. Since it requires no grid stabilization measures, it achieves a simpler overall configuration than LCC-HVDC systems.

### **About Hitachi ABB HVDC Technologies, Ltd.**

Item	Description
Name	Hitachi ABB HVDC Technologies, Ltd.
Headquarters	1-18-13 Soto-Kanda, Chiyoda-ku, Tokyo
Capital	7 hundred million yen (Hitachi: 51%, ABB: 49%)
Management	Chairman & CEO: Atsushi Nishioka President & COO: David Larsson
Business activities	Engineering, HVDC system study, manufacturing, assembly and testing, marketing, sales and after sales services of converter valves and control and protection systems for HVDC projects in Japan, including upgrade of existing HVDC installations in Japan
Employees	Starting with 10 employees at the time of the establishment

### **About ABB Ltd.**

ABB ([www.abb.com](http://www.abb.com)) is a leader in power and automation technologies that enable utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in roughly 100 countries and employs about 140,000 people. ABB Japan is based in Tokyo and has been active in Japan for more than 100 years.

### **About Hitachi, Ltd.**

Hitachi, Ltd. ([www.hitachi.com](http://www.hitachi.com)), headquartered in Tokyo, Japan, delivers innovations that answer society's challenges with our talented team and proven experience in global markets. The company's consolidated revenues for fiscal 2014 (ended March 31, 2015) totaled 9,761 billion yen (\$81.3 billion). Hitachi is focusing more than ever on the Social Innovation Business, which includes power & infrastructure systems, information & telecommunication systems, construction machinery, high functional materials & components, automotive systems, healthcare and others.

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