

FOR IMMEDIATE RELEASE

**Joint Development of CO₂ Capture Technologies
with Finnish Power and Heat Company Fortum
for Commercializing CCS Technology in Thermal Power Plants**

Tokyo, April 26, 2010 --- Hitachi, Ltd. (NYSE:HIT / TSE:6501) and Babcock-Hitachi K.K. today announced development of CO₂ capture technologies with Fortum Corporation, a major power and heat company headquartered in Finland. These technologies were jointly developed with a view to commercializing CCS (Carbon dioxide Capture and Storage) technology for the separation, capture and storage of CO₂ from thermal power plant flue gas. Specifically, the companies have jointly developed a proprietary low-cost, high-efficiency Oxyfuel combustion system, and a highly reliable burner for achieving stable power plant operations. The Hitachi Group plans to apply these technologies to coal-fired thermal power plant CCS pilot projects as well as commercial projects.

In recent years, CO₂ emissions from large-scale thermal power plants have been blamed as a cause for global warming. In this context, CCS technology, which is designed to separate, capture and store CO₂ from flue gas emitted by thermal power plants, has attracted worldwide interest as an effective means of reducing CO₂ emissions. The Hitachi Group estimates that CO₂ separation and capture will grow into an approximate 3 trillion yen market on a cumulative basis by 2020 and be worth around at least 35 trillion yen on aggregate by 2030.

The Hitachi Group initiated research of oxygen combustion-type CCS technology at coal-fired thermal power plants in cooperation with Fortum in May 2008. This type of CCS technology combusts coal using pure oxygen instead of the air normally used in coal-fired thermal power generation, turning at least 90% of the constituents of gas emissions into CO₂, thereby allowing for the easy capture of CO₂ without requiring a CO₂ separation process. The aims of this joint development were to build a low-cost system without affecting power plant efficiency, and to develop a burner with excellent flame stability. Feasibility studies are proceeding regarding retrofitting this Oxyfuel combustion system at existing 500 MW-class coal-fired generating facilities. And a combustion experiment has been conducted using a process simulator and large-scale test facilities.

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This joint research has yielded a proprietary system that removes corrosive substances in reticulated flue gas and has proven to dramatically cut costs* when retrofitted to an existing boiler compared with existing oxygen combustion systems. Furthermore, installation of a proprietary heat exchange system reduces the energy required to capture CO₂, limiting the decline in power plant efficiency to 1 to 2 percentage points. Moreover, the companies have also developed a high-performance burner that maintains a flame even during switchover from air combustion to oxygen combustion and other low power output times, thus facilitating stable plant operations.

In February 2010, the Hitachi Group concluded a collaboration agreement in low-carbon energy technologies in the CCS field with Saskatchewan Power Corporation, an electricity utility in Saskatchewan, Canada. As part of this agreement, the Hitachi Group has received an order to supply steam turbines for a CCS demonstration project. The Hitachi Group is also conducting joint research and field testing with multiple parties in Japan and overseas, including joint research with Germany's Aachen University and a demonstration project with Electrabel S.A., a major Belgium power company.

The Hitachi Group will actively look to win orders for commercial projects as well as CCS pilot projects at power plants planned by power utilities around the world, and thereby help create a low-carbon society.

* Expenses for reforming boilers, excluding added air separation equipment and CO₂ capture equipment.

Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.
