June 2, 2008
Electric Power Development Co., Ltd.
The Chugoku Electric Power Co., Inc.

Joint Large-scale Demonstration Test of Oxygen-blown Coal Gasification Technology by J-POWER and The Chugoku Electric Power Co., Inc.

Electric Power Development Co., Ltd. (President, Yoshihiko Nakagaki; Headquarters, Chuo-ku, Tokyo; hereinafter "J-POWER") and The Chugoku Electric Power Co., Inc. (President, Takashi Yamashita; Headquarters, Naka-ku, Hiroshima) have decided to proceed with a large-scale demonstration test of the Japanese oxygen-blown coal gasification technology which J-Power has been researching and developing for some time with support from the government.

As a resource that is both widely available and economical, coal is considered an important energy resource for the future, and both companies have been devoting ongoing efforts to promoting improved efficiency in coal utilization through the development of technology involving the application of high-temperature and high-pressure steam conditions. With the conviction that promoting higher efficiency in this technology is significant in the development of technologies that have the potential to contribute to both energy security and the mitigation of global warming, both companies have been engaging in a joint study since 2006 (as reported in J-POWER's press release on May 31, 2006).

The development of this technology has been identified as an innovative zero-emission type coal-fired power generation technology which simultaneously satisfies criteria for so-called "Coal based high-efficiency power generation technology" and the development of "CO_2 capture and storage (CCS) technology" which are included in the government's *Cool Earth-Energy Innovative Technology Plan*.

* Oxygen-blown coal gasification technology:
This is a technology for gasifying coal using oxygen to produce coal gas where carbon monoxide (CO) and hydrogen (H_2) are the main constituents. This technology has promising potential not only in CO_2 reduction through improved thermal efficiency but also in the application of CO_2 capture. Therefore, once it reaches the practical application stage, this technology can be expected to make a significant contribution toward zero-emission coal-fired power generation.

1.Site of the Demonstration Test

Osaki Power Station, The Chugoku Electric Power Co., Ltd.

Tentative construction site: No.1-2 unit, Osaki Kamijima-cho, Toyota-gun, Hiroshima

The No.1-1 unit (250,000kW) for the No. 1 system at Osaki Power Station has been in operation since 2000. However, the planned construction of No.1-2 unit using pressurized fluidized bed combustion (PFBC), the same as the No.1-1 unit, was canceled due to the difficulty in ensuring its economic efficiency as a new development power supply. The municipal authority of Osaki Kamijima-cho was accordingly notified today of the cancellation of construction as well as plans to proceed with the demonstration test.

In the future The Chugoku Electric Power Co., Inc. will undertake the necessary procedures concerning the amendment in development plans for the Osaki Power Station No. 1 system.

2.Outline of the Demonstration Test

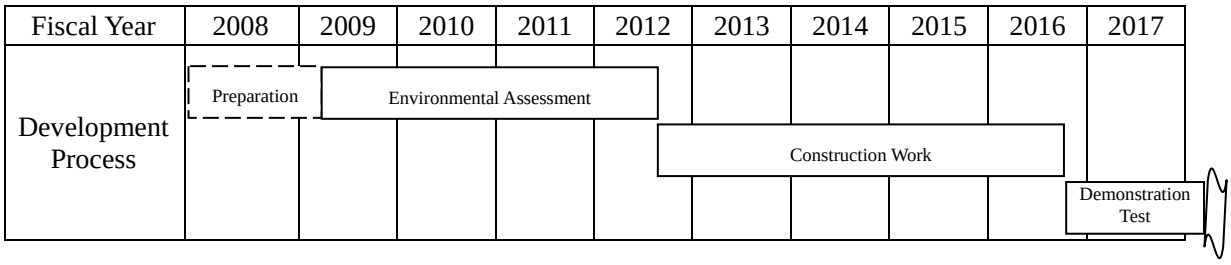
Capacity: 150,000kW class (coal feed: 1,000t/day class)

The demonstration test will confirm the reliability, economic efficiency, and operability of the oxygen-blown coal integrated gasification combined cycle. Following that, an application test on the latest CO_2 capture technology will be conducted in efforts to realize innovative zero-emission high-efficiency coal-fired power generation.

Furthermore, with respect to oxygen-blown coal gasification technology and CO_2 capture technology, J-POWER and New Energy and Industrial Technology Development Organization (NEDO) have been jointly conducting a pilot test on multi-purpose coal gasification technology development (EAGLE, coal feed: 150t/day) at J-POWER-Wakamatsu Research Institute (Kitakyushu, Fukuoka) since 2002. This demonstration test shall be designed to reflect the results achieved to date.

3.Tentative Schedule

After completion of the environmental assessment, construction will commence during fiscal 2012 for commencement of the demonstration test during fiscal 2016.



Attachments

Attachment 1 Outline of the Demonstration Test System (oxygen-blown coal integrated gasification combined cycle)

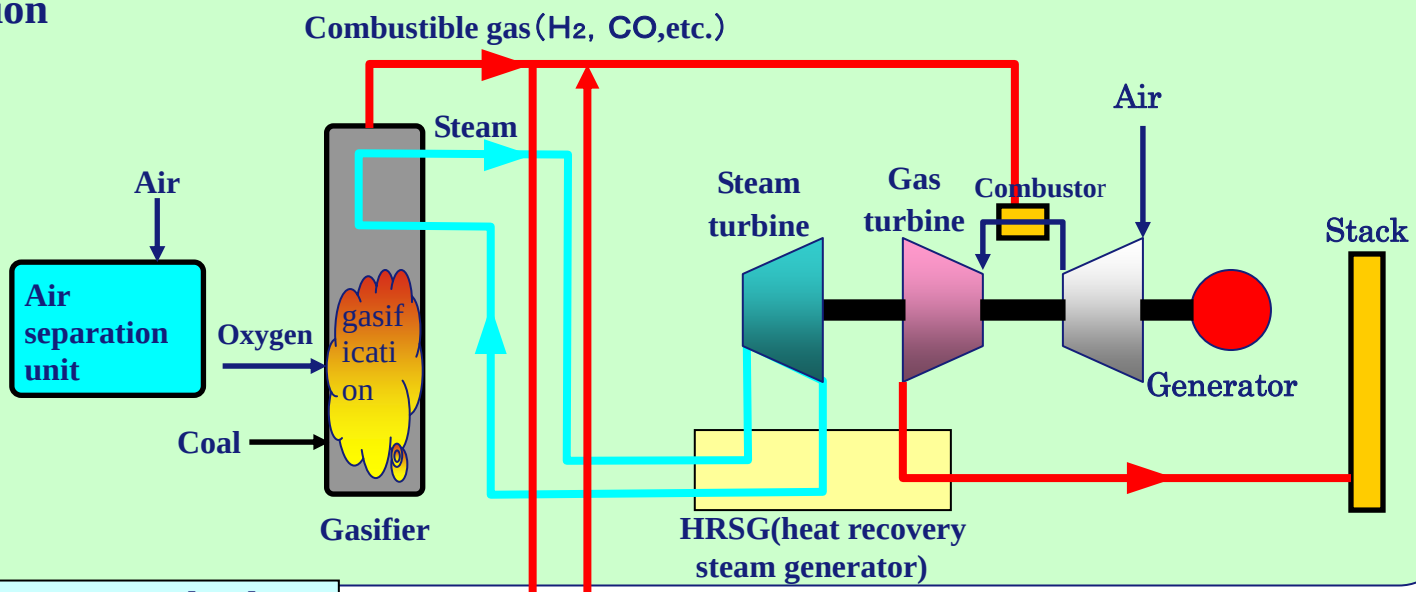
Attachment 2 Site of the Demonstration Test

Attachment 1

Outline of the Demonstration Test System (oxygen-blown coal integrated gasification combined cycle)

Integrated Coal Gasification Combined Cycle (IGCC)

- Coal gas where CO and H2 are the main constituents is utilized for gas turbine fuel.
- Steam is produced by recovered heat from gas turbine and gasification process.



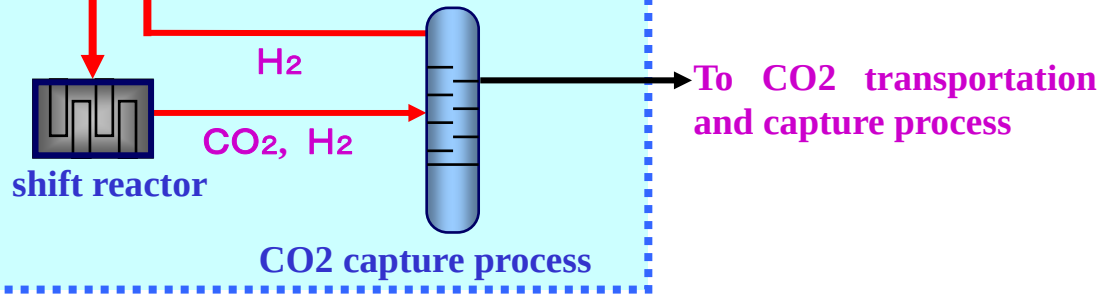
CO2 capture technology

CO2 capture

- CO in the coal gas is converted to CO2 and H2 by shift reaction and the CO2 is captured by CO2 capture process.

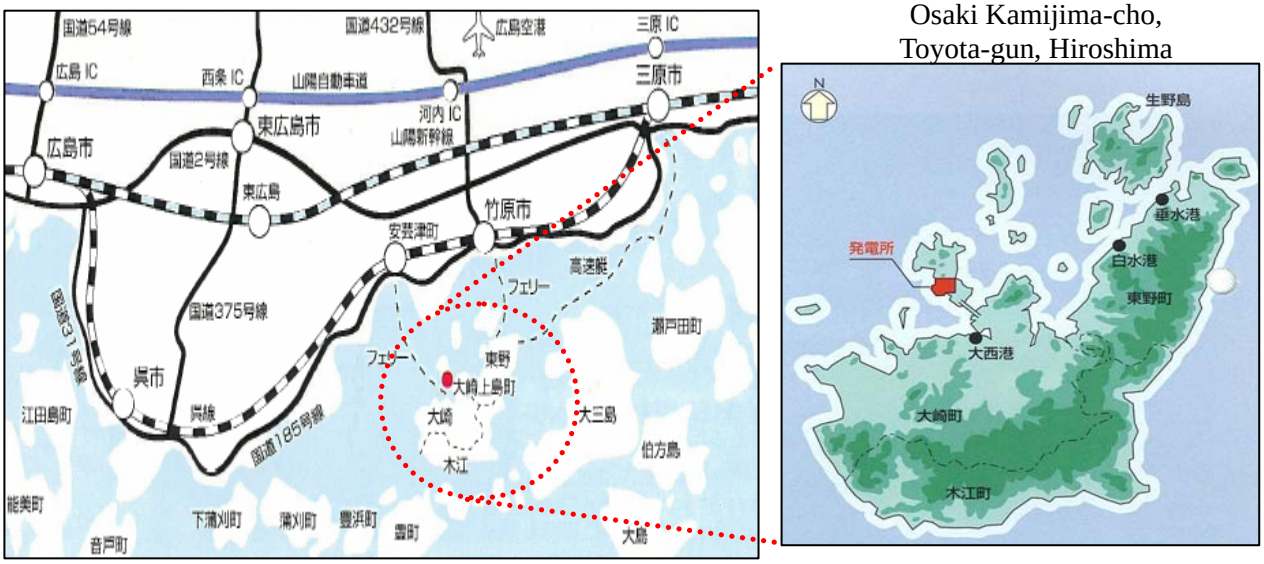
Shift reaction

- The shift reaction is the conversion of CO and added steam to CO2 and H2 with catalyst.



Attachment 2

Site of the Demonstration Test



Osaki Kamijima-cho,
Toyota-gun, Hiroshima