

Press Release

April 28, 2016
Osaki CoolGen Corporation
The Chugoku Electric Power Co., Inc.
Electric Power Development Co., Ltd. (J-POWER)

Regarding the commencement of the demonstration project for IGCC with CO₂ capture

Osaki CoolGen Corporation (Headquarters: Osakikamijima-cho, Toyota-gun, Hiroshima Prefecture, joint investment by The Chugoku Electric Power Co., Inc. and Electric Power Development Co., Ltd. (J-POWER)) is currently proceeding with the “Osaki CoolGen Project.” This project includes the implementation of demonstration testing for the combination of Integrated Coal Gasification Combined Cycle (IGCC) with CO₂ capture, with the aim of realizing innovative low-carbon coal-fired thermal power generation.

On April 1st, Osaki CoolGen Corporation was selected as a company to implement the “Next-generation thermal power generation technology development/Integrated Coal Gasification Fuel Cell Combined Cycle (IGFC) demonstration project/Oxygen-blown IGCC with CO₂ capture demonstration.” This is a project subsidized by the New Energy and Industrial Technology Development Organization (NEDO). From that date, work was started on the “IGCC with CO₂ capture demonstration project (hereinafter called “this project”) (to run from FY2016 to FY2020).

The “Osaki CoolGen Project” is composed of an oxygen-blown IGCC demonstration (Step 1), an oxygen-blown IGCC with CO₂ capture demonstration (Step 2) and an IGFC with CO₂ capture demonstration (Step 3).

This project forms the second step. With the aim of realizing the practical application of the technology in the future, equipment for CO₂ capture will be added to the equipment for the oxygen-blown IGCC demonstration testing. Demonstration testing will then be performed regarding the performance, operability, reliability and economic efficiency of the equipment as a system for coal-fired thermal power generation with CO₂ capture.

There are expectations that the CO₂ discharged in coal-fired thermal power generation can be greatly reduced by combining the results of the oxygen-blown IGCC with CO₂ capture that are established in this project with the results of the development of CO₂ capture and storage (CSS) technology, which is proceeding separately to this project.

From now on, in addition to steadily promoting the project with the target of starting the demonstration testing during fiscal 2019, we will also work to ensure the achievement of the goals of the “Osaki CoolGen Project.”

<Site of the Demonstration Test>

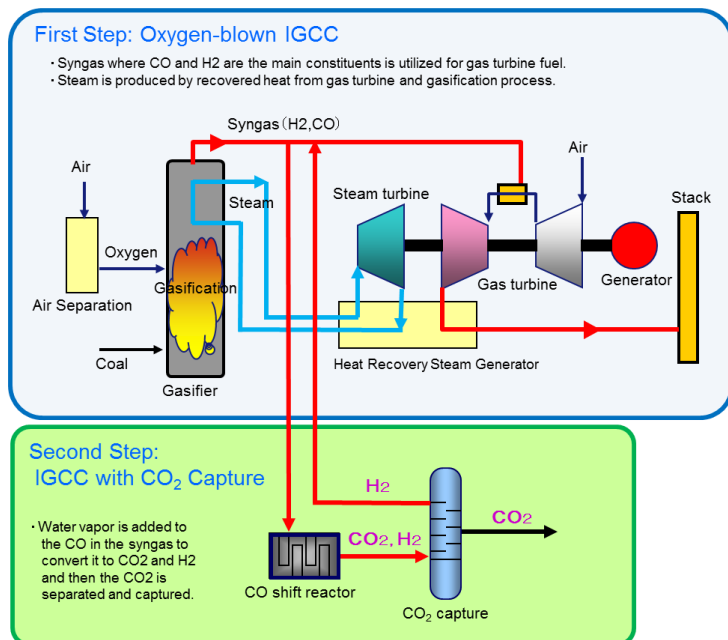


* This demonstration project is being implemented within the grounds of the Osaki Power Station of The Chugoku Electric Power Co., Inc.

<Main schedule for the IGFC demonstration project>

Fiscal Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
First Step Oxygen-blown IGCC	IGCC Design, Manufacturing and Construction					Demonstration Operation				
					△ Demonstration start at Mar.2017					
Second Step IGCC with CO ₂ -capture					CO ₂ -capture Design, Manufacturing and Construction			Demonstration Operation		
Third Step IGFC with CO ₂ -capture						Total system of IGFC with CO ₂ -capture Design, Manufacturing and Construction				Demonstration Operation

<Outline of this demonstration testing system>



(Reference) Image of the CO₂ capture equipment



Physical absorption demonstration testing plant at the Wakamatsu Research Institute of Electric Power Development Co., Ltd. (J-POWER) (Source: Electric Power Development Co., Ltd. (J-POWER))

* This project reflects the results of the testing at the Wakamatsu Research Institute

<Status of construction of the IGCC demonstration plant>

