April 2, 2018

OSAKI CoolGen Corporation

"OSAKI CoolGen Project" Regarding Start of Construction of CO₂ Capture Unit

We are implementing the "OSAKI CoolGen Project" as a subsidized project of the New Energy and Industrial Technology Development Organization (NEDO). This project performs demonstration tests combining the integrated coal gasification combined cycle (IGCC^{*1}) with CO_2 capture in order to drastically reduce the CO_2 emission from coal-fired power generation.

The "OSAKI CoolGen Project" consists of three steps: "Oxygen-blown IGCC demonstration" (Step 1), "IGCC demonstration with CO_2 capture" (Step 2), and "IGFC^{*2} demonstration with CO_2 capture" (Step 3).

In April of 2016, we began Step 2, that is, "IGCC demonstration with CO₂ capture" (hereinafter, "this project"), and we have been proceeding with preliminary preparation such as design.

Today, we began construction on the main equipment of the CO_2 capture unit.

In this project, we plan to attach the CO_2 capture unit to the IGCC plant which is currently undergoing demonstration tests. Also, we plan to start demonstrations regarding its performance, operability, reliability, and economic feasibility as a system for oxygen-blown IGCC power generation with CO_2 capture from 2019.

The IGCC power generation system with CO_2 capture that we aim to establish in this project will make it possible in the future to significantly reduce the amount of CO_2 emitted through coal-fired power generation, and will be combined with CO_2 transportation/storage technology being developed separately from this project.

Also, Step 1, that is, "Oxygen-blown IGCC demonstration," began demonstration tests on March 28, 2017, and is proceeding as planned to verify the basic performance, coal variety compatibility, plant reliability, plant controllability and economic feasibility by FY2018.

From now on, we will proceed assuredly with construction placing priority on ensuring safety and preserving the environment, as well as steadily proceed with our project in order to achieve the goal of the "OSAKI CoolGen Project."

- *1: Integrated Coal Gasification Combined Cycle
- *2: Integrated Coal Gasification Fuel Cell Combined Cycle

End of Document



[Estimate figure of completed demonstration testing equipment]

*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 demonstration testing]

FY	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1st step Oxygen-blown	Design, manufacturing, construction									
IGČČ						March,20	17 Start o	f demonst	ration	
2 nd step IGCC with CO ₂ capture unit					Desi	gn, man constru		the second se	emon- tration	
3 rd step IGFC with CO ₂ capture unit								manufa		Demon- stration

[Outline of this demonstration testing system]



[3D illustration of the CO₂ capture unit]

