

J-POWER Starts Preparation for Environmental Impact Assessment of GENESIS Matsushima Plan

Aiming for Realizing a Carbon-Neutral and Hydrogen Society

Electric Power Development Co., Ltd. (hereafter “J-POWER”) announces that it starts preparation for environmental impact assessment of the plan in which a gasification unit will be added to Matsushima Thermal Power Plant sited at Saikai city, Nagasaki prefecture, Japan.

J-POWER has announced its efforts to realize a carbon-neutral and hydrogen society in 2050 in J-POWER “BLUE MISSION 2050” released in February 26, 2021.

In these efforts, “acceleration” toward realizing carbon-neutral and “upcycle” by which creative value is added to existing assets are prioritized.

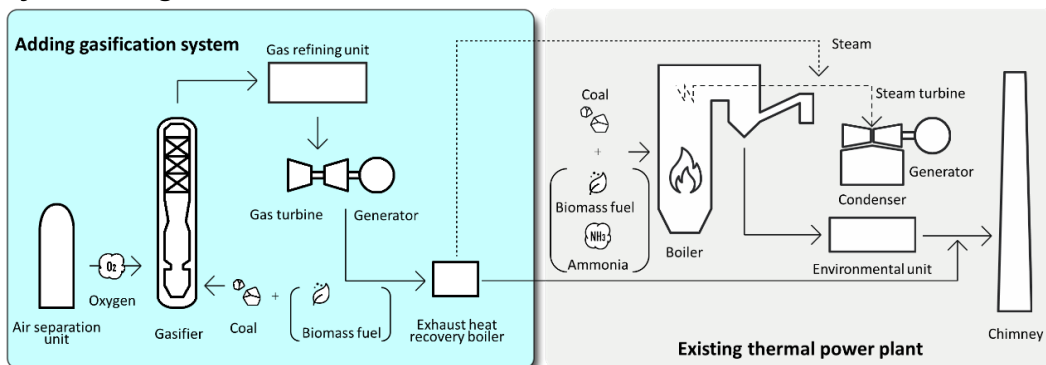
Based on these concepts, J-POWER aims at upcycling existing power plant by adding a gasification unit at Matsushima Thermal Power Plant which will have been continuing operation for 50 years in 2030. This GENESIS* Matsushima Plan is the first commercialization of the results demonstrated in the Osaki CoolGen Project. In this plan, J-POWER will realize stable power supply while quickly reducing environmental load including CO₂ through newly adding a gasification unit to the existing Matsushima Thermal Power Plant Unit No.2 whose capacity is 500MW as a transitional technology toward realizing a hydrogen society. J-POWER aims for further reducing CO₂ by mixed combustion with biomass and ammonia.

This plan is the first step toward the goal of realizing CO₂-free hydrogen power generation and CO₂-free hydrogen production/supply utilizing CCUS. J-POWER Group will take on the challenge of realizing a carbon-neutral society while continuing stable power supply.

Overview of GENESIS Matsushima Plan

Location	Saikai city, Nagasaki prefecture, Japan
Capacity	500MW-class
Start of construction	2024 (scheduled)
Start of operation	Fiscal 2026 (scheduled)
Generation type	Combined cycle of gas turbine and steam turbine

System image



*GENESIS is an abbreviation for **G**asification **ENE**rgy & **S**ustainable **I**ntegrated **S**ystem. As the word “genesis” means birth and origin, GENESIS implies creating new value that will lead to the realization of a carbon-neutral and hydrogen society by using the gasification technology cultivated by J-POWER. Trademark registration pending as J-POWER GENESIS.