

A decarbonized and sustainable Africa with Mitsubishi Heavy Industries Group

2022/08/28

Mitsubishi Heavy Industries Group at a Glance



1884 Foundation
over 130 years history



78,486 Employees
(Consolidated)



256 Group Companies
(Consolidated)



¥3.9TN (\$35BN*) Revenue
(FY2021, consolidated)



Diverse products
On land, at sea, in the sky, in space

Note: The U.S. dollar revenue figure was converted from Japanese yen using the FY2021 average exchange rate, JPY 111.6/USD.



Gas turbines



Compressors



Aero engines



CO₂ capture plants



Metals machinery



Chemical plants



Transportation



Waste-to-energy



Turbochargers



Aerospace



Rocket engines



Defense

MHI Group aims to achieve a 50% reduction of CO₂ emission by 2030 and Net Zero by 2040 across MHI's value chain



**MISSION
NET ZERO**

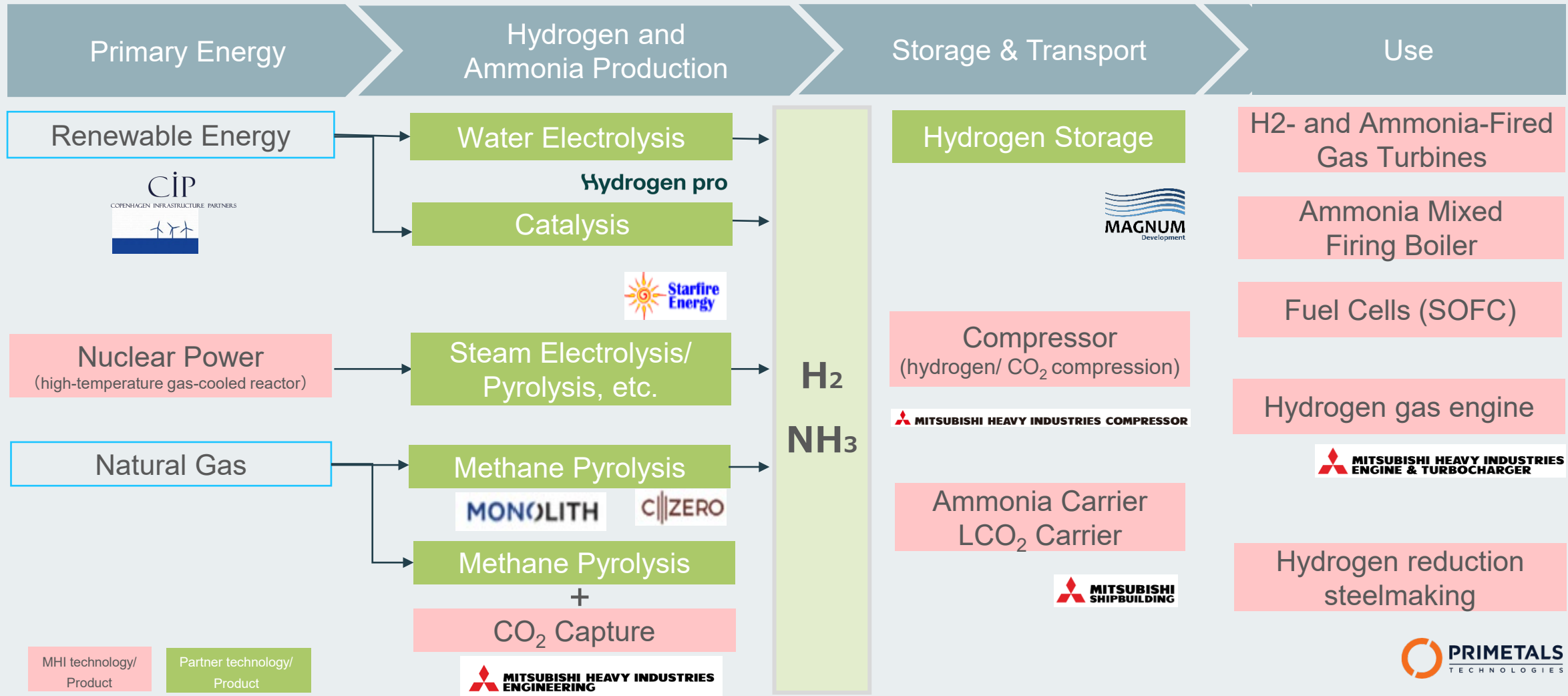
Mitsubishi Heavy Industries Group
will contribute to the realization of
net zero for society as a whole.

MOVE THE WORLD FORWARD  **MITSUBISHI
HEAVY
INDUSTRIES
GROUP**

 **MITSUBISHI
HEAVY INDUSTRIES**

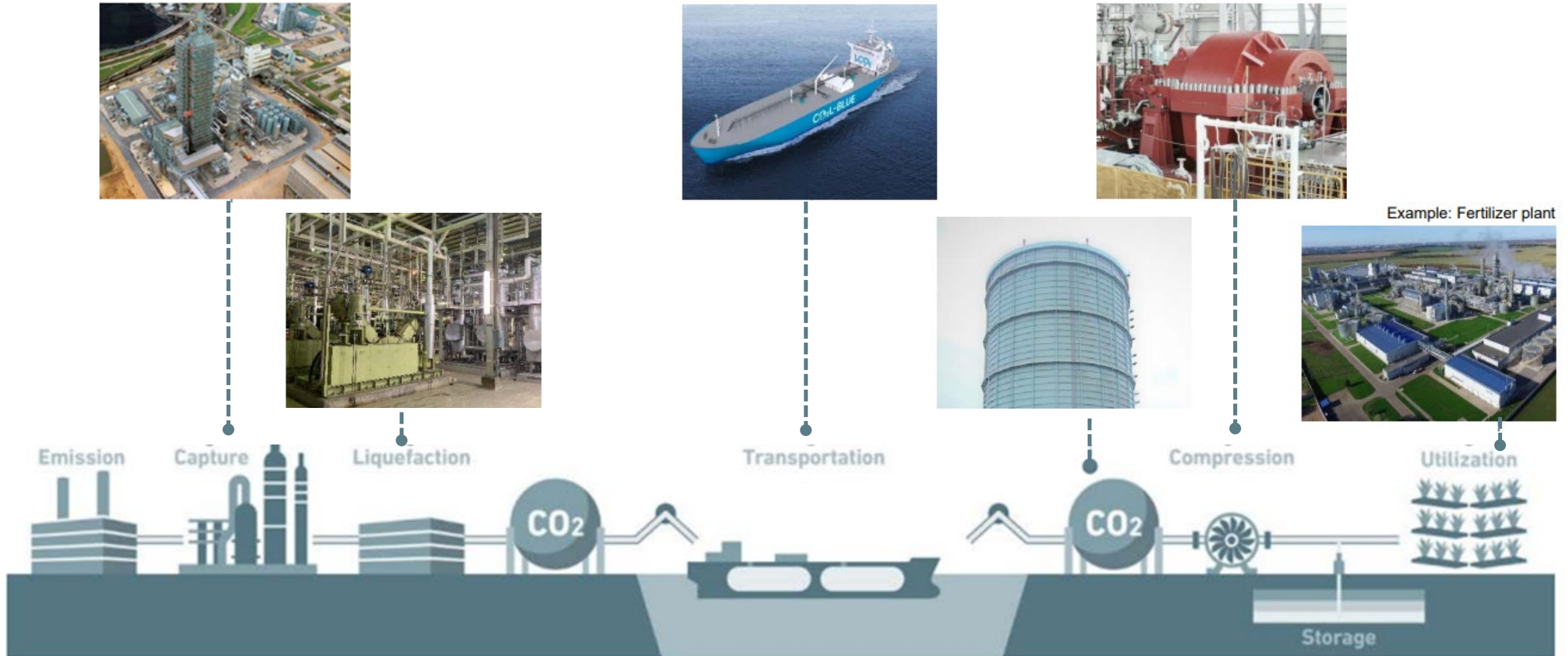
MHI Group approach to a Hydrogen

MHI Group is creating a value chain through our unique technologies and active partnerships with innovative companies

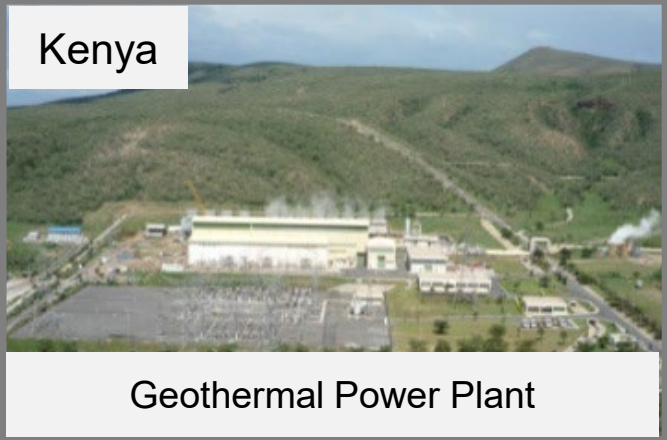


MHI Group approach to CCUS Value Chain

MHI Group is helping to establish a robust value chain by offering a wide variety of CCUS-related technologies



MHI Group has been responding to Africa's growing power demand and stable food supply through highly advanced technologies



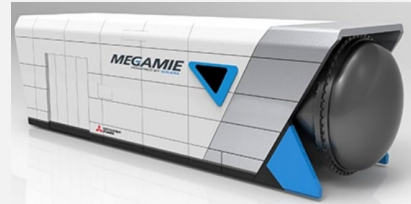
KenGen's 105MW Olkaria II Geothermal Power Plant.
Source: Kenya Electricity Generating Company (KenGen) PLC.



MHI Group is a solution technology provider for sustainable development of Africa

Energy

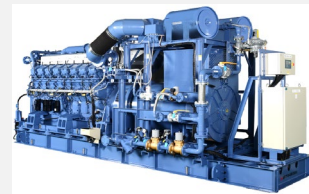
Solid Oxide Fuel Cells



Organic Rankine Cycle



Engine



“EBLOX”
Triple Hybrid
Power Generation System



Industrial and Urban

Logistics & e-commerce
(Forklift Trucks) (Box Making Machine)



Data Center

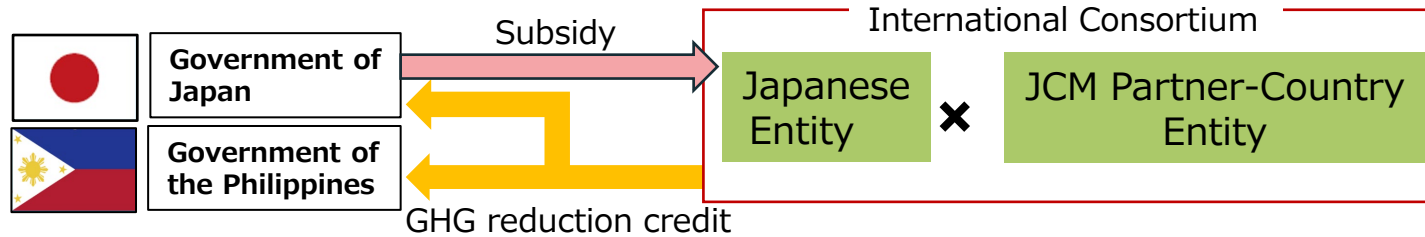


Transportation



Binary Power Plant Project in Philippines by support of JCM

JCM (Joint Credit Mechanism) is a financing support from Government of Japan.



ORC system by Turboden

Project Outline

✓ **29 MW Palayan binary geothermal power plant with the Organic Rankine Cycle (ORC) system** to the existing 120MW flash type geothermal power plant owned and operated by Bac-Man Geothermal Inc.

✓ Effectively **use exhausted hot water** of low enthalpy from the existing flash geothermal power plant without exploring new geothermal well and producing hazardous gasses.

✓ Replaces the grid power produced by fossil fuel with renewable energy.

✓ **Expected GHG Reduction: 72,200 tCO₂/Year**, **Expected COD: April 2023**

System Configurations

Exhausted hot water from the existing plant

