

# **JOGMEC's Support for Realization of Fuel Ammonia Value Chain**

**Japan Organization for Metals and Energy Security**

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# Who is JOGMEC?

## Japan Organization for Metals and Energy Security



**Mission** As agency of Japanese government (METI)

Secure the **stable supply** of Natural Resources for Japan

New Area



Oil & Natural Gas



Metals



Coal



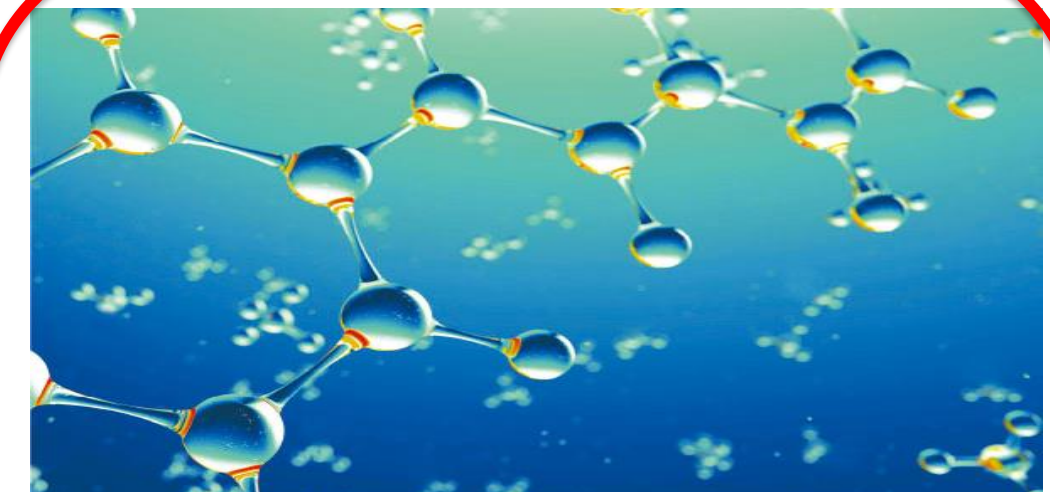
Geothermal



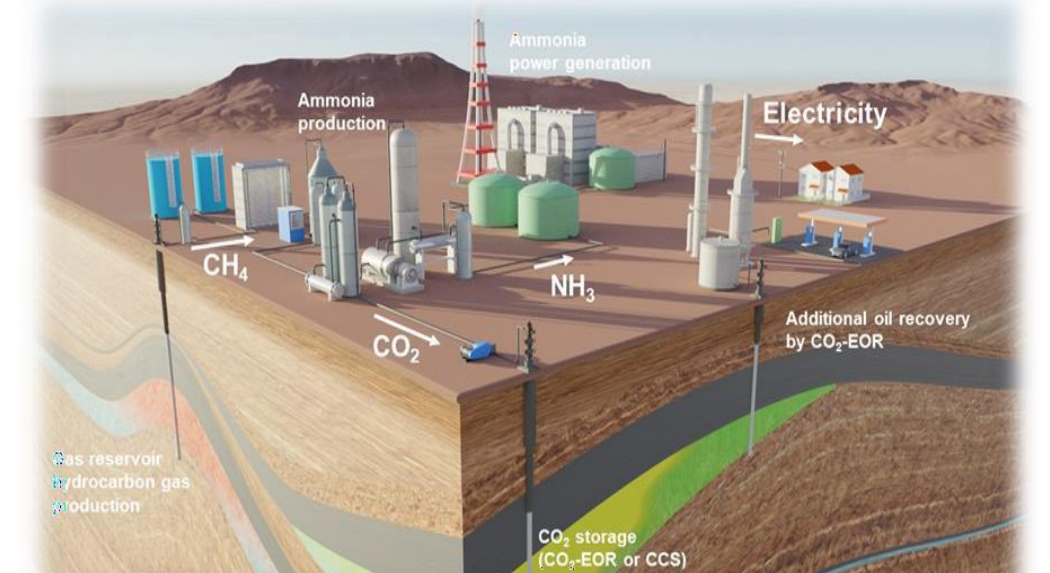
Stockpiling



Mine Pollution Control



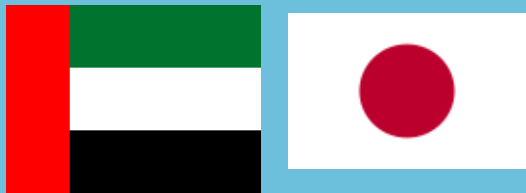
Hydrogen/Ammonia



CCS



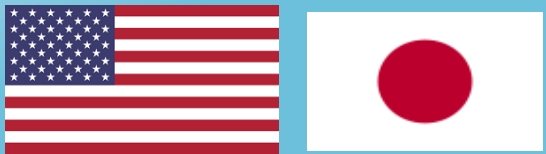
Joint Study to Verify GHG Emissions of Clean Ammonia Production Project



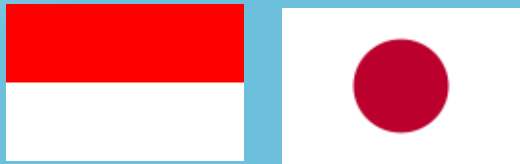
CO<sub>2</sub>-EOR/CCUS Pilot Test  
Blue H<sub>2</sub> production & utilization



Several ammonia value chain projects



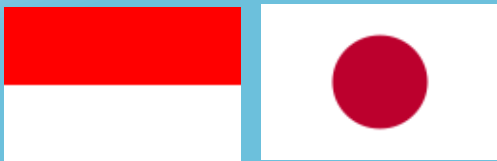
Joint Study of CO<sub>2</sub>-EOR/CCUS in the matured reservoir



Joint Study on the Development of CCS at High CO<sub>2</sub> Gas Fields



CCS Joint Study for Clean Fuel Ammonia Production



Feasibility on Establishing a Clean Fuel Ammonia Supply Chain From Australia to Japan



Feasibility on CCS for Creation of a Supply Chain of Low Carbon Ammonia



CarbonNet  
(FEED for CCS Hub Network)





# Global Coordination and Diplomacy





# Carbon Intensity for Fuel Ammonia

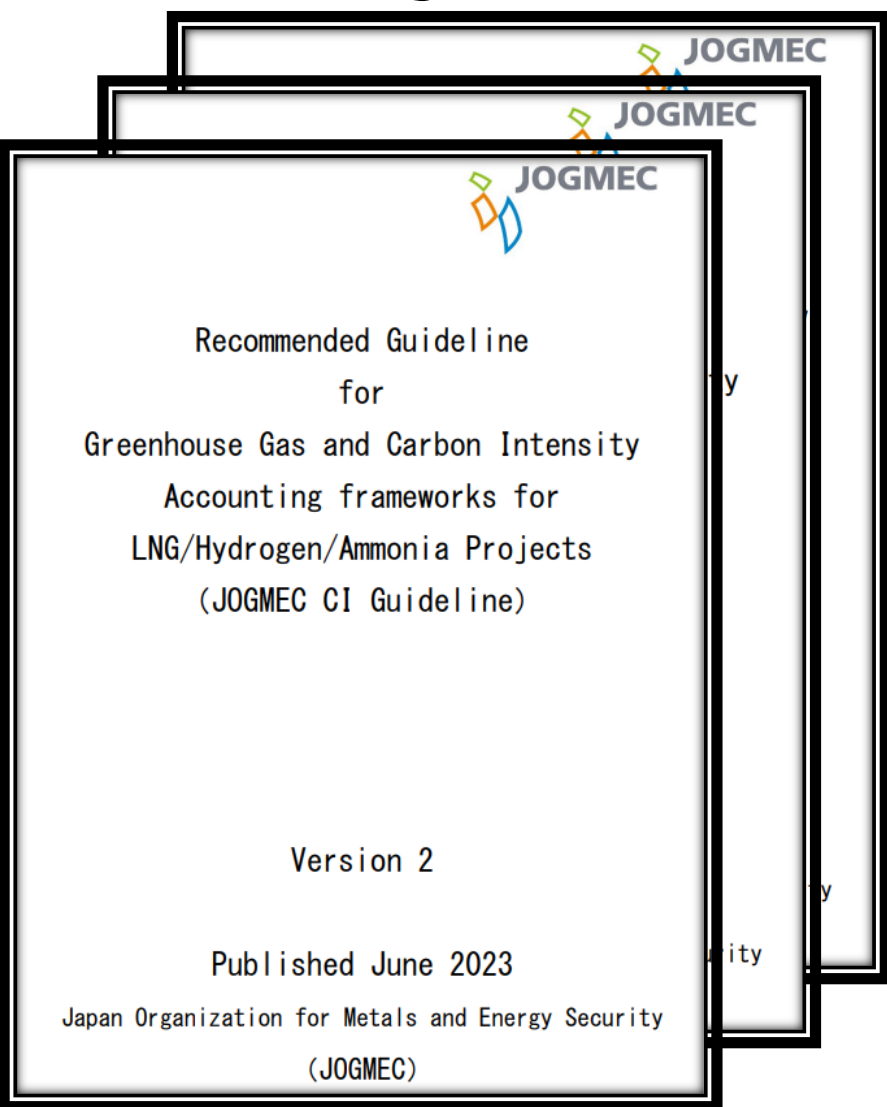
- CCS Guideline, CO2EOR Guideline, CCS Carbon Credit Handbook and Carbon Intensity (CI) guideline are published in 2022 and 2023.
- Carbon Intensity is index to evaluate environment value for fuel ammonia which has numerous pathways to produce Ammonia from various primary energies.

## Published Guidelines

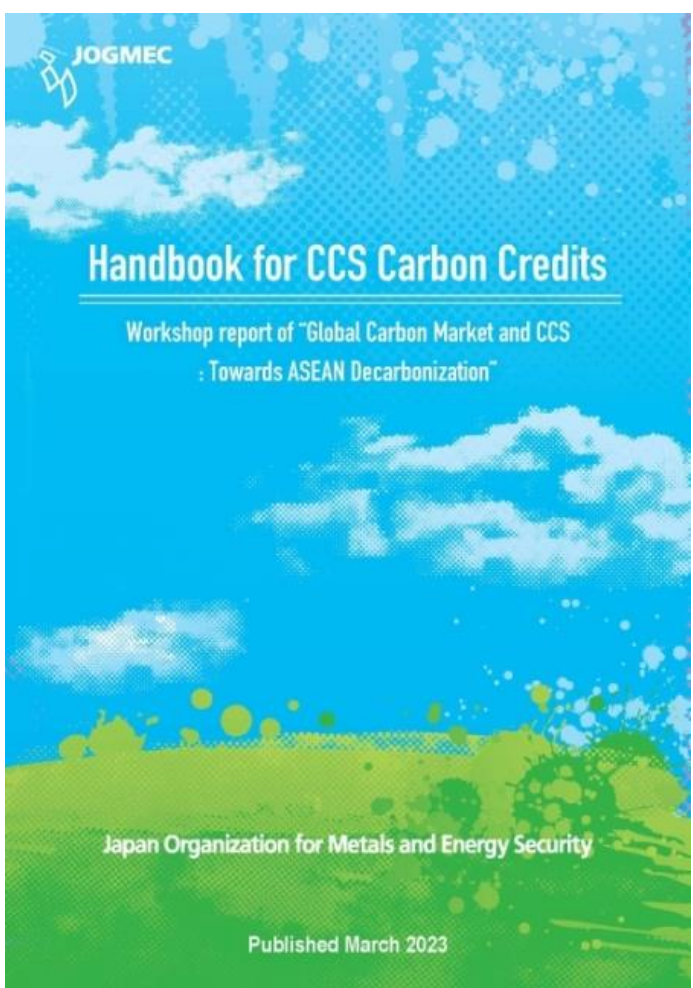
CI Guideline

CCS guideline

CO2-EOR guideline



CCS Carbon  
Credit Handbook



## CI calculation at operation Ammonia Plant

Calculated **GHG emissions per ton of ammonia** to calculate **CI values for ammonia products**

- ✓ **Country:** Indonesia
- ✓ **Plant Type:** Ammonia Production Plant
- ✓ **Approach:** Calculation and Direct Measurement





# Thank you

➤ For more information, visit  
<https://mirai.jogmec.go.jp/en/>



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