



CCUS and Low Carbon Fuels

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Creating Global Ammonia Supply Chain from Abu Dhabi

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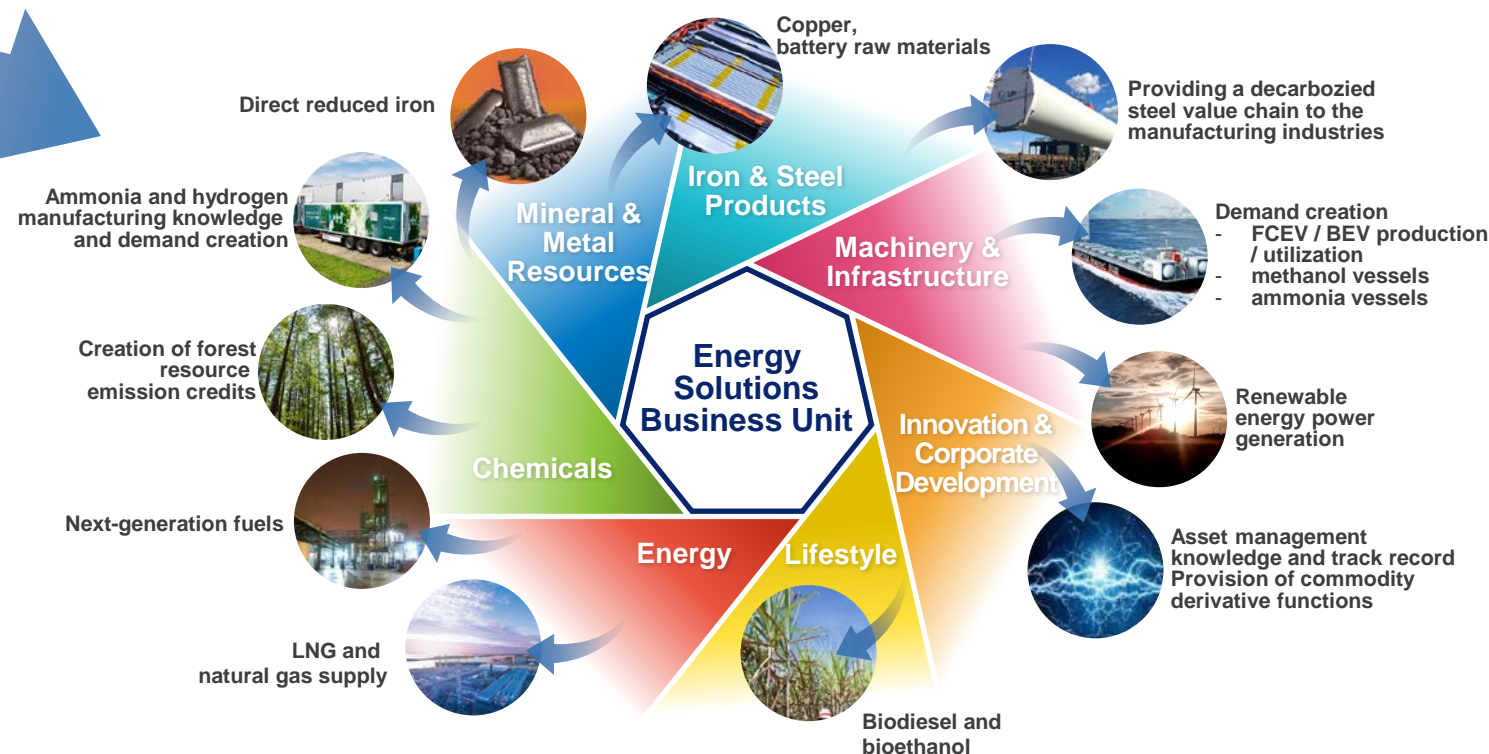
Mitsui & Co., Ltd. – Global Energy Transition Initiatives

- Provide real solutions from the perspectives of both energy security and climate action.
- Deliver cross-sector decarbonization solutions leveraging in-house and external expertise.

3 Key Strategic Initiatives



Global Energy Transition x Industrial Business Solutions



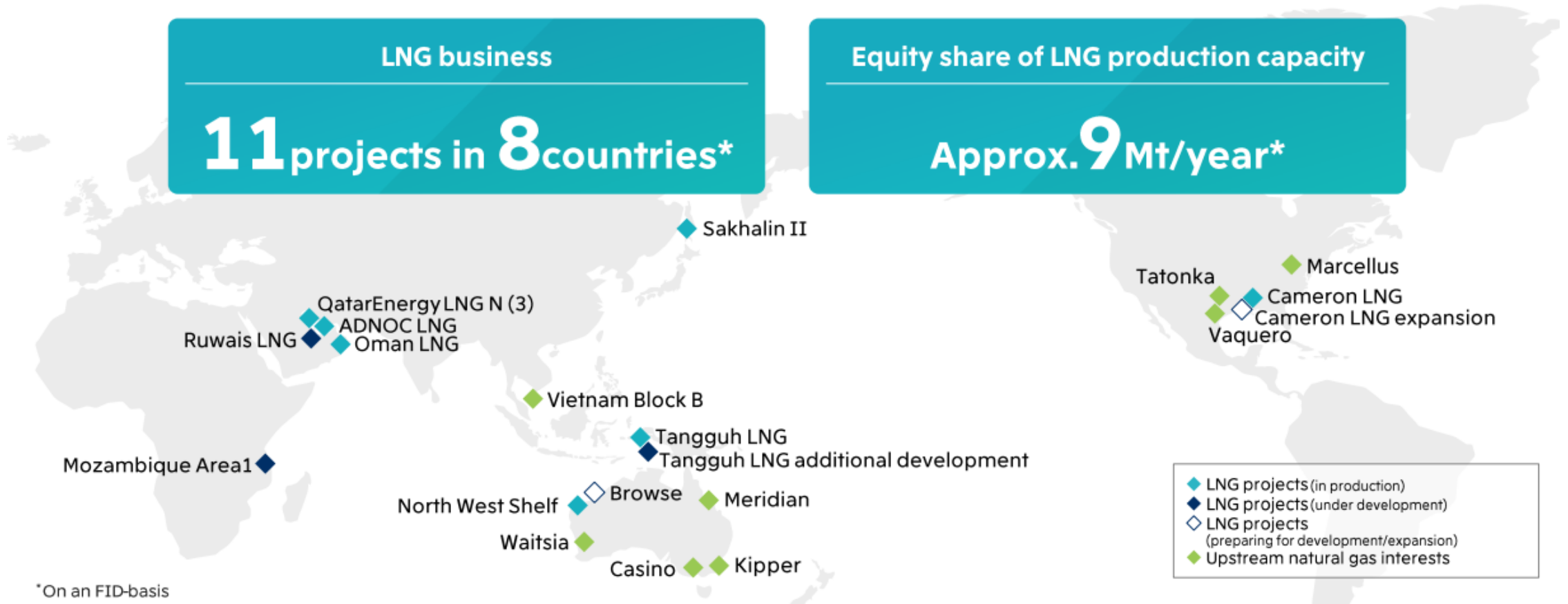
Global Natural Gas and LNG Portfolio

LNG business

11 projects in **8** countries*

Equity share of LNG production capacity

Approx. 9 Mt/year*



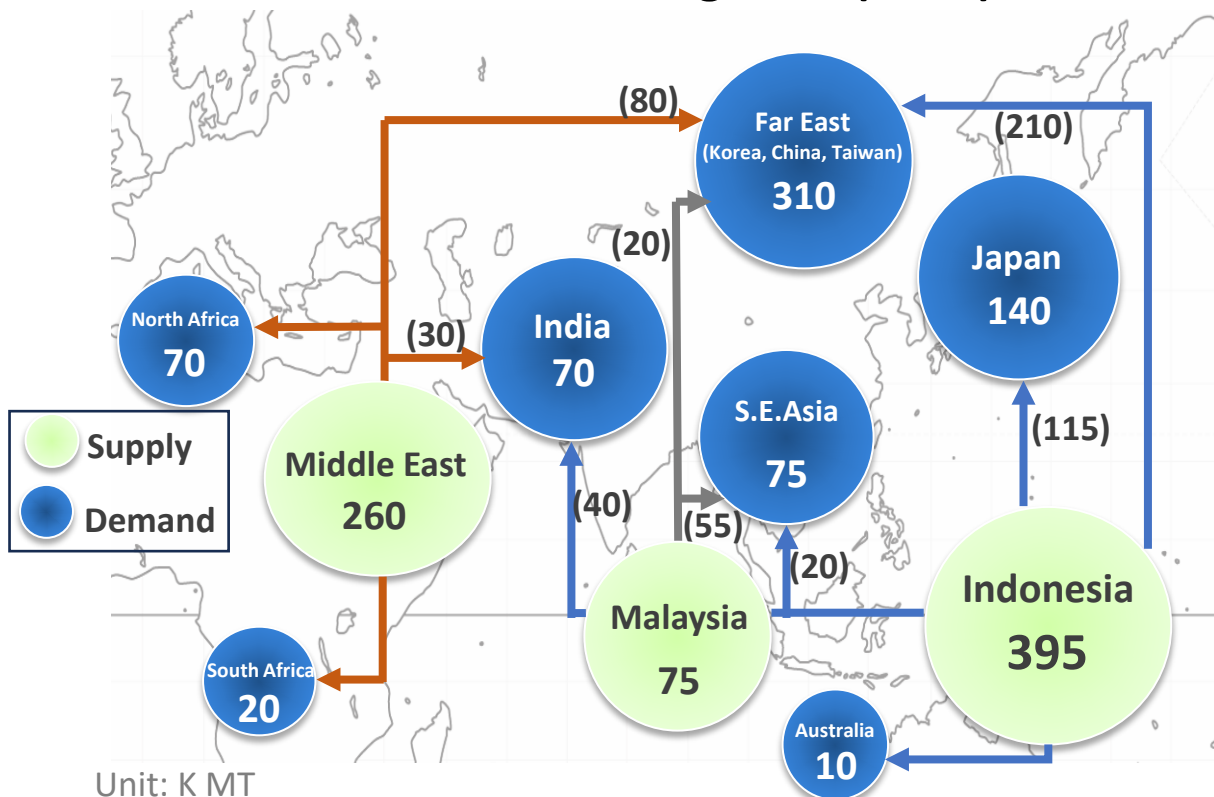
- ◆ LNG projects (in production)
- ◆ LNG projects (under development)
- ◆ LNG projects (preparing for development/expansion)
- ◆ Upstream natural gas interests

*On an FID-basis

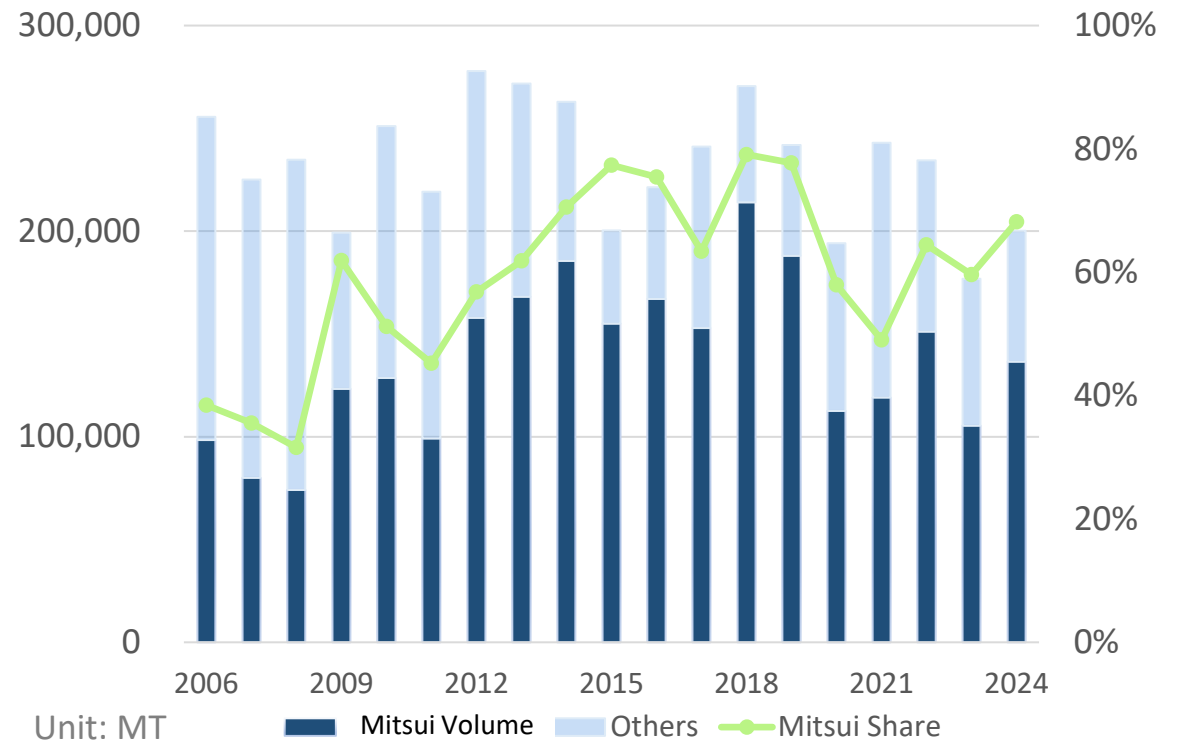
Mitsui's Edge in Ammonia Business

- Over 40 years of trading experience with owned assets
- Approximately 60% share of Japan's ammonia import market
- Trading volume of 600-800K MT/year in Asian market (>20% market share)

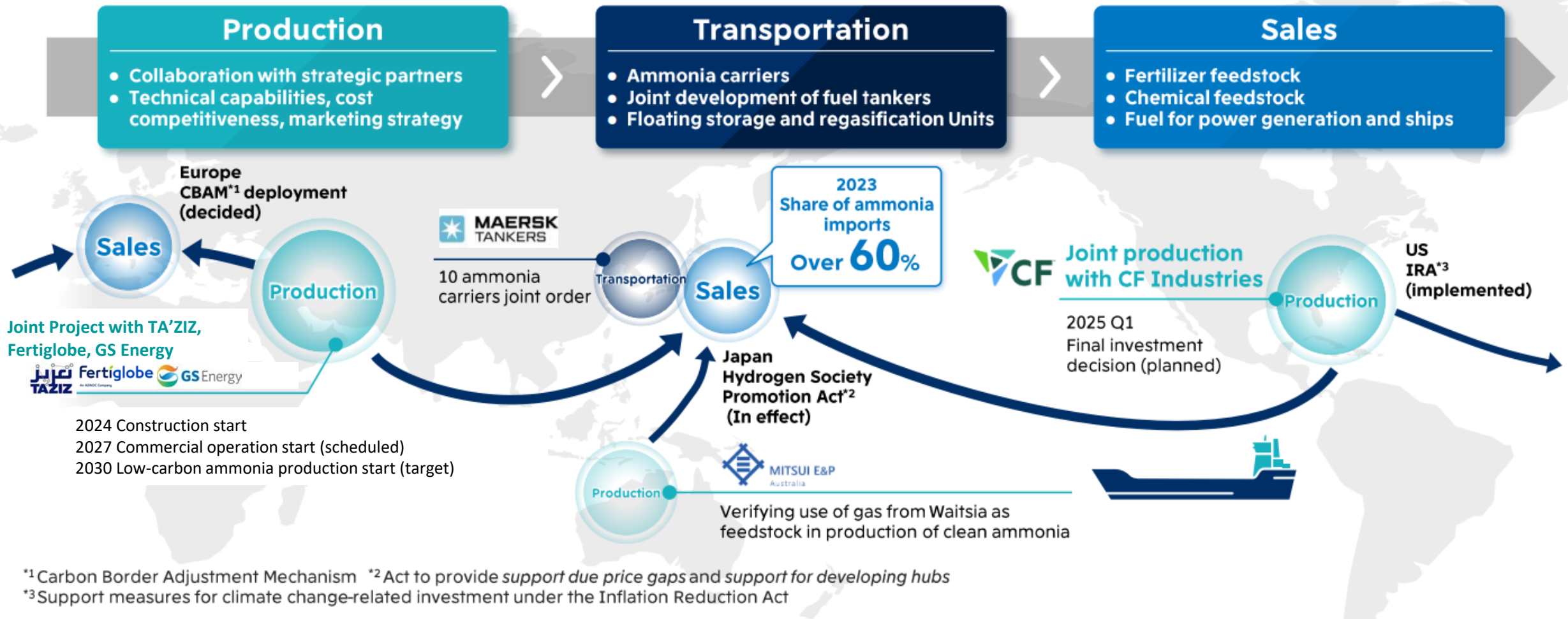
Ammonia Trading Flow (2024)



Volume/Share in Ammonia Imports to Japan



Low-Carbon Ammonia - Building a Value Chain -



UAE/ADNOC Hydrogen Strategy



- The UAE launched its National Hydrogen Strategy in April 2023 with the aim to position the UAE as a leading producer and supplier of low-carbon hydrogen by 2031.
- By 2031, the UAE aims to produce 1.4 million tons of hydrogen per year.



- ADNOC aims to be a leader in low-carbon hydrogen
- Net Zero by 2045 ambition
- Safely sequester 10 million tonnes of CO₂ per annum by 2030
- \$23bn investment towards decarbonization and low-carbon solutions
- Steering Member of the Hydrogen Council



Ecosystem - **H2 plant** development



Global **low-carbon ammonia** project & trading



Renewables and green hydrogen

Mitsui's Partnership with UAE/ADNOC

Create

Grow

Extend

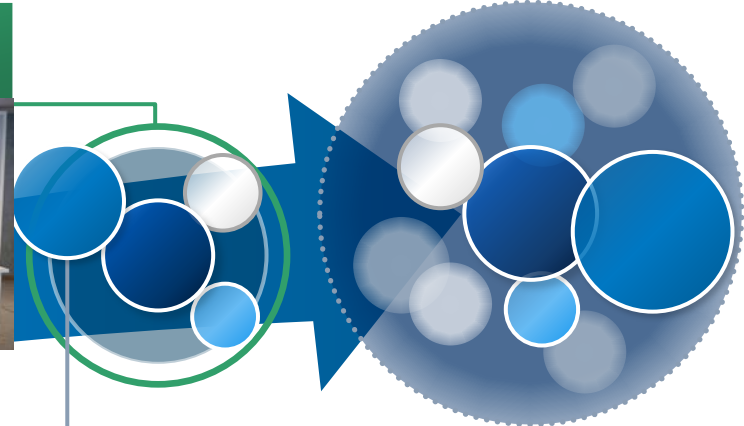


Investment in Das LNG project (1973)







Investment in Ruwais LNG (2024)

Investment in TA'ZIZ low-carbon ammonia project (2022)



Overview – Low-Carbon Ammonia Project in UAE

Partners	   
Location	Ruwais/TA'ZIZ Industrial Chemicals Zone
Production	1 million tons per annum
Feedstock	<ul style="list-style-type: none"> ➤ Starting with hydrogen as by-product from ethylene cracker ➤ Transitioning to low-carbon hydrogen produced from ATR with CCS
Schedule	2024: Start construction 2027: Commercial operation start 2030: Low-carbon ammonia production start (target)



Location

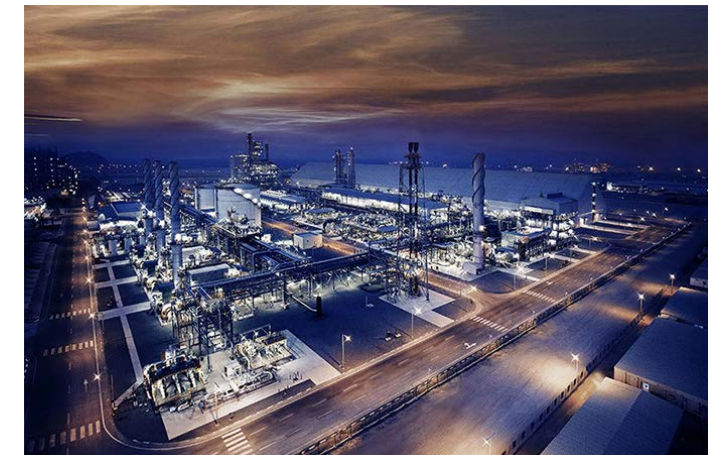
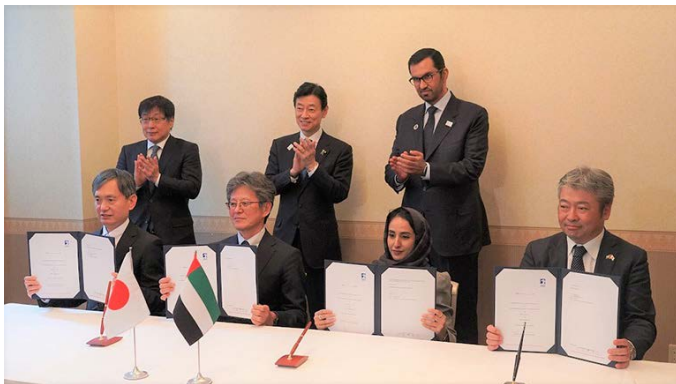


Image of production facility

Pathway to Low-Carbon Ammonia

- **Certificate/Carbon Intensity** : Collaborate with government and relevant agencies to define project configuration complying with the requirement/standards in each region.
- **CCS** : Mitsui received the world's first certified bulk commercial shipment of low-carbon ammonia, produced by Fertiglobe in the existing facility in Ruwais in May 2024.
- **Low-carbon Hydrogen** : ADNOC has embarked on the design of low-carbon hydrogen facility in Abu Dhabi in 2024.



Joint study for carbon intensity
with ADNOC/JOGMEC



ADNOC embarked on the design of low-carbon hydrogen



Creating a Low-Carbon Ammonia Supply Chain from Abu Dhabi



Advantage of low-carbon ammonia project in Abu Dhabi:

- Supportive political and economic environment
- Access to feedstock supplies
- Strategic location to major global markets

Demand-side initiatives to build ammonia supply chain:



- Defining regional regulatory requirements
- Leveraging government subsidy program (e.g., Japan CfD, South Korea CHPS)
- Evaluating investments in large-scale infrastructure
- Developing new applications, including hard-to-abate sectors
- Securing long-term buyers