



ENEOS' hydrogen business strategy **～Paving the path for hydrogen society～**

15th October, 2025
ENEOS Corporation

ENEOS Group Business Overview by Segment

Petroleum products and others

Foundation and materials



- Refining and sales of petroleum products
- ENEOS brand services
- Nationwide deployment of stations

Domestic fuel oil*¹
Sales Share
About 50%



- Development, manufacturing, and sales of lubricant products
- Manufacture and sales of petrochemical products

16 countries overseas
23 locations

Low carbon



- Supply of biofuels

At the Wakayama Plant, from FY2028 onwards
Aiming to produce 400,000 KL of SAF per year

Decarbonization



- For the implementation of next-generation decarbonization technologies **such as hydrogen and synthetic fuels**, the value chain in collaboration with the government and other companies
- Promote early development and implementation**

High Performance Materials



▲ Fuel-efficient tire material

- Manufacture and sale of high-performance materials such as elastomers

Contributing to Reducing Environmental Impact
A product range boasting world-class technology

Oil & Natural Gas E&P

Oil & Natural Gas E&P



▲ Landon Oilfield

- Oil and natural gas development, production and sales

Crude oil and natural gas equity production

100,000 barrels/day

Crude oil equivalent (FY2024 results)

CCS²/CCUS³



▲ Petra Nova CCUS Project

- Promotion of CCS/CCUS business

Early implementation of CCS/CCUS

Promoting initiatives in **Japan and overseas**

Electricity



▲ Goi Thermal Power Plant

- Electricity business with a consistent supply system from power generation to retail

VPP business, city gas business, and overseas business

Power Generation Capacity **2.2 million kW**

(As of the end of March 2025)

Renewable Energy



▲ Uruma Mega Solar

- Development, generation, and sales of renewable energy

Power Capacity
(In Operation + Under Construction) **1.37 million kW**

(As of the end of March 2025)

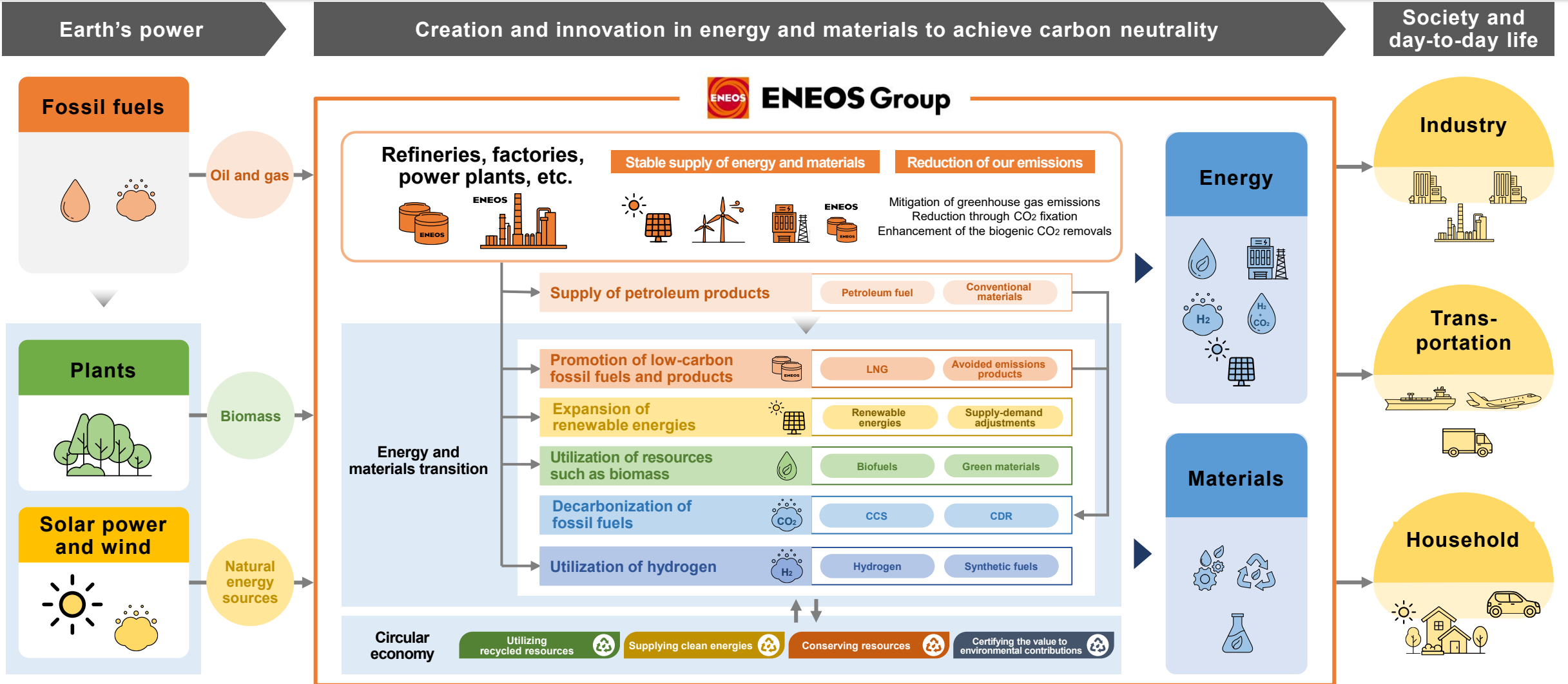
*1 Domestic fuel oil: Gasoline, kerosene, diesel oil, and A fuel oil total

*2 Carbon dioxide Capture and Storage : CO₂の回収・貯留

*3 Carbon dioxide Capture, Utilization and Storage : CO₂の回収・有効利用・貯留

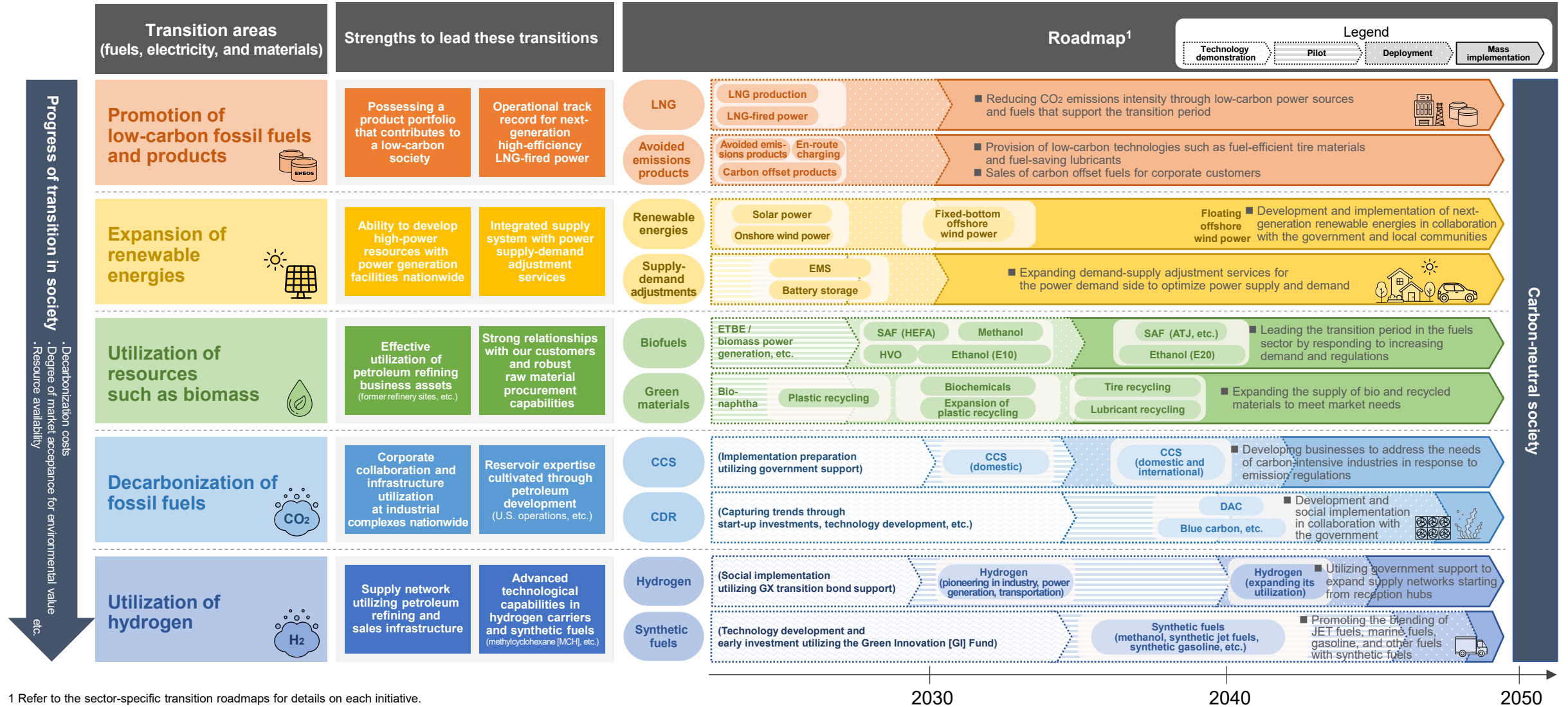
Conceptual Diagram of Carbon Neutrality Plan

- Contributing to community development and a vibrant future by leveraging ENEOS Group's facilities, experience, and expertise to balance energy and materials transition with stable supply



Roadmap for the Reduction of Greenhouse Gas Emissions in Society

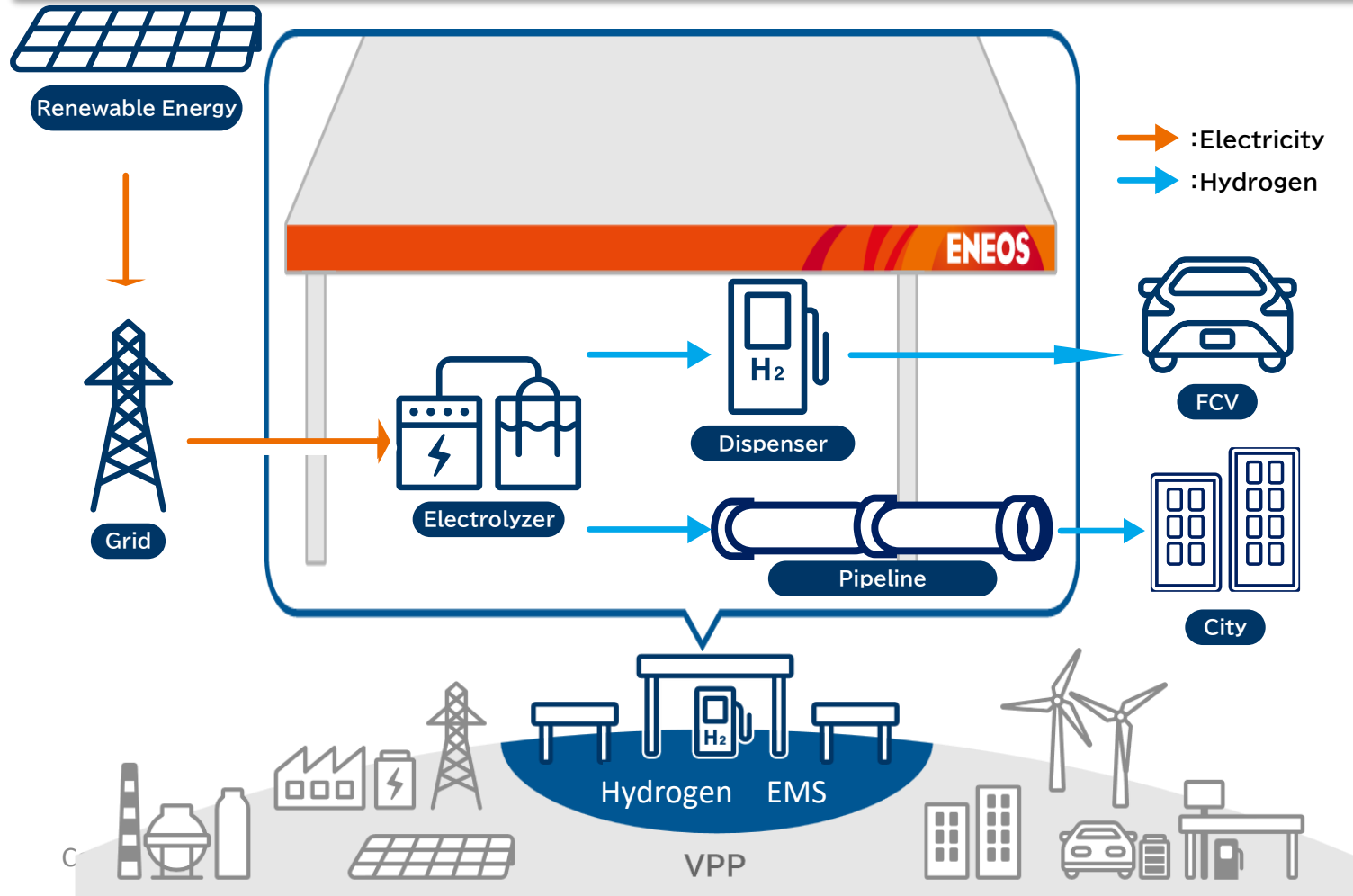
- Ensuring a stable supply of energy and materials by leveraging our strengths amid ongoing societal transitions



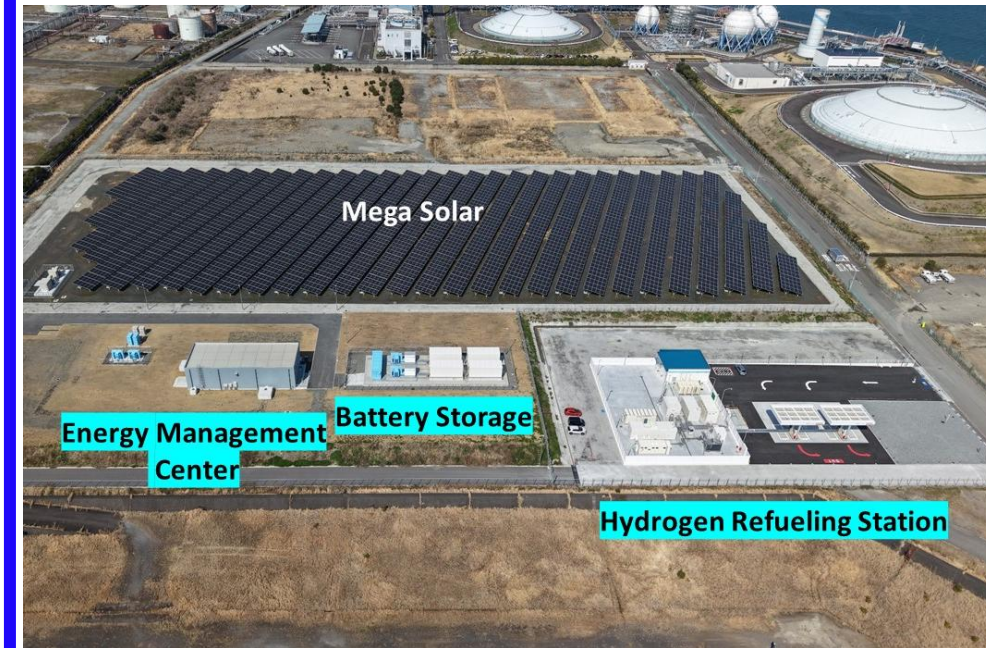
¹ Refer to the sector-specific transition roadmaps for details on each initiative.

New Concept Hydrogen Refueling Station

- ENEOS started first HRS operation from 2014, now we operate 31 out of ~150 HRS in Japan.
- Our Shimizu and WOVEN CITY HRSs supply hydrogen not only for FC buses and tracks, but also for home and industry via pipeline.
- ENEOS Hydrogen EMS optimize hydrogen production, storage, and supply for customer.

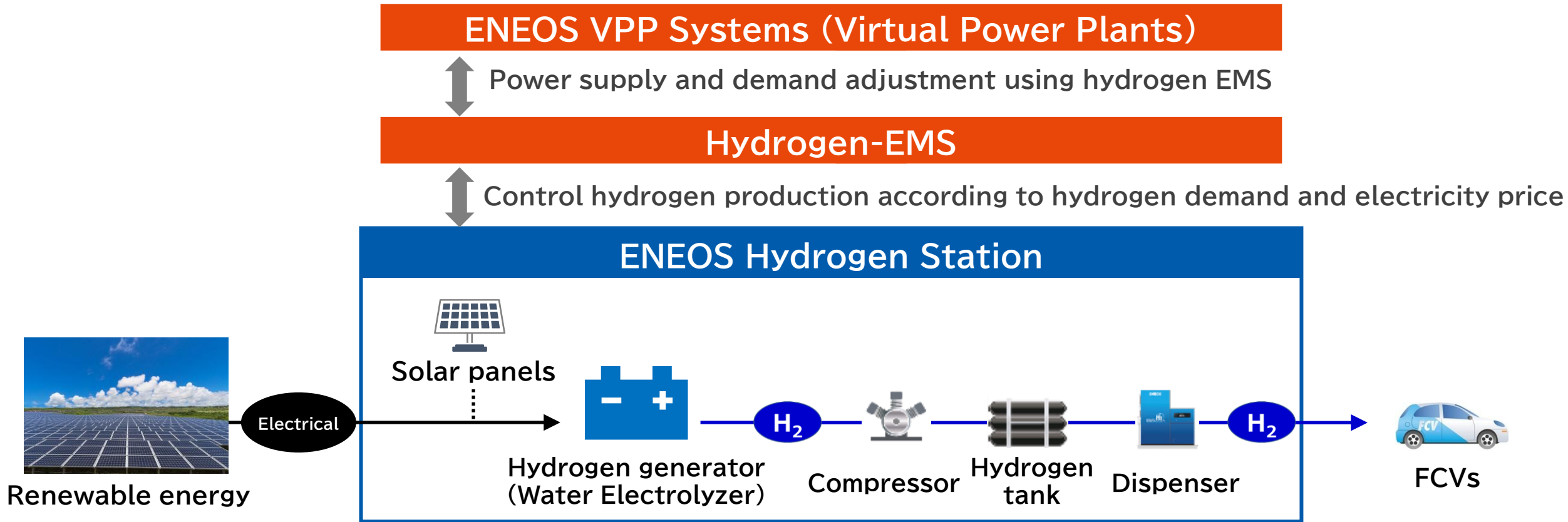


ENEOS Mirai Connect @Shimizu



ENEOS Hydrogen Energy Management System (EMS)

- Water electrolyzer is automatically controlled harmonized with hydrogen demand forecast, etc.
- Key Aspects:
 1. Hydrogen Production Timing
 2. Minimizing deterioration of Water Electrolyzer
 3. Improvement of the hydrogen stations profitability

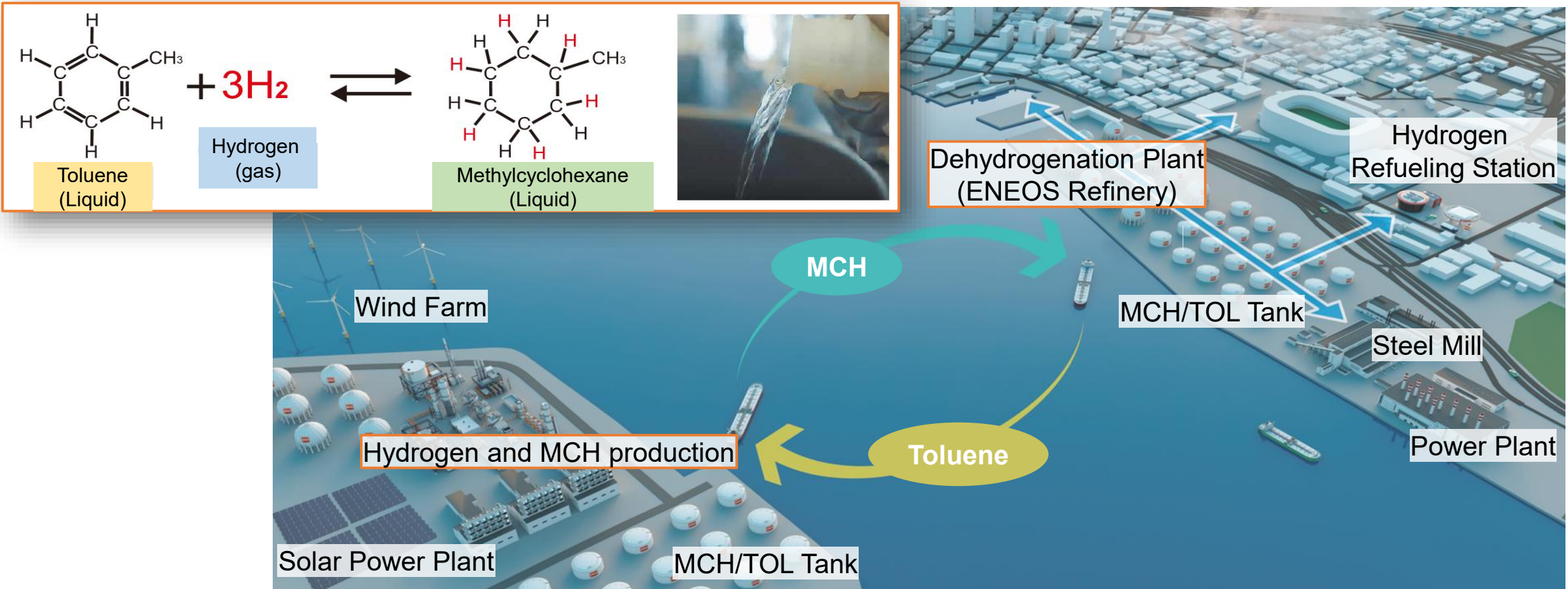


Establishing Global Hydrogen Supply Chain

- Investigating and examining the potential in Australia, Southeast Asia, and other countries
- Planning to utilize domestic assets such as refineries to establish hydrogen supply hubs

Features and Advantages of MCH as Hydrogen Carrier

- Storing hydrogen efficiently and stably at room temperature and pressure
- Supplying hydrogen efficiently by utilizing petroleum refining technologies for dehydrogenation and delivery



Direct MCH®

- Developing proprietary Direct MCH® technology for direct synthesis of MCH in electrolytic cells
- Reducing CAPEX by eliminating hydrogenation equipment and tanks
- Enhancing responsiveness to renewable energy output fluctuations

Image of the hydrogen supply chain using conventional

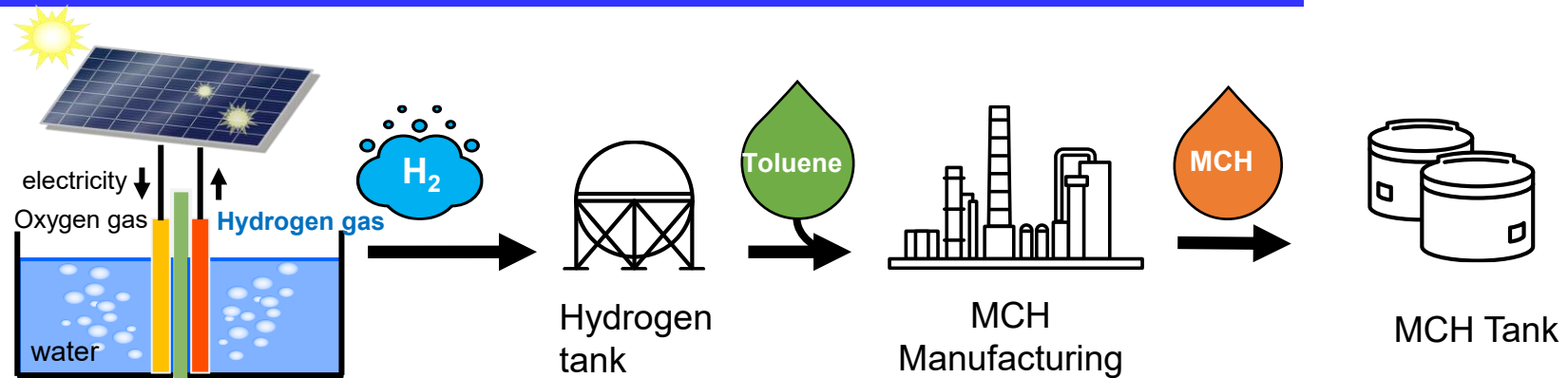
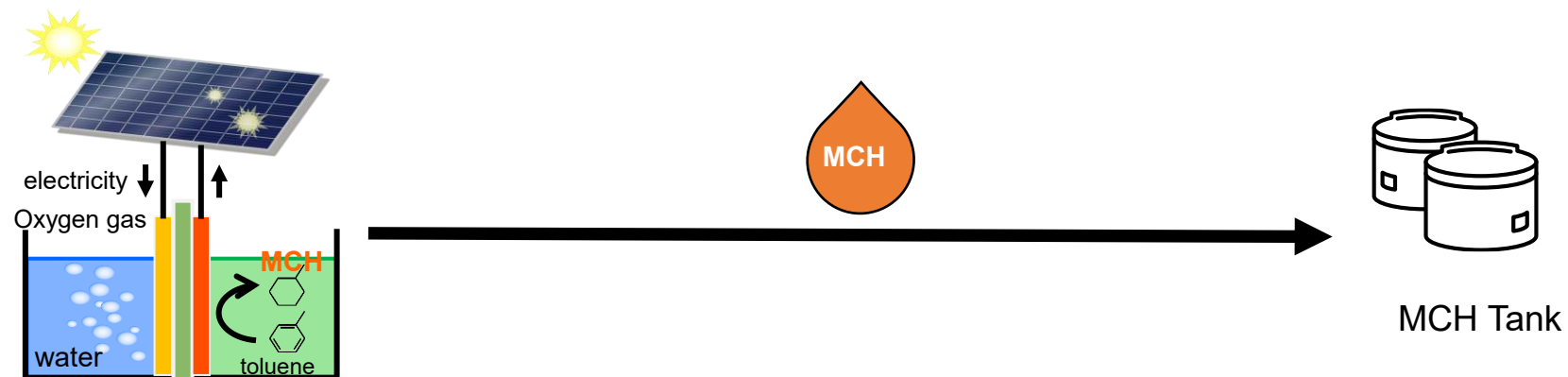
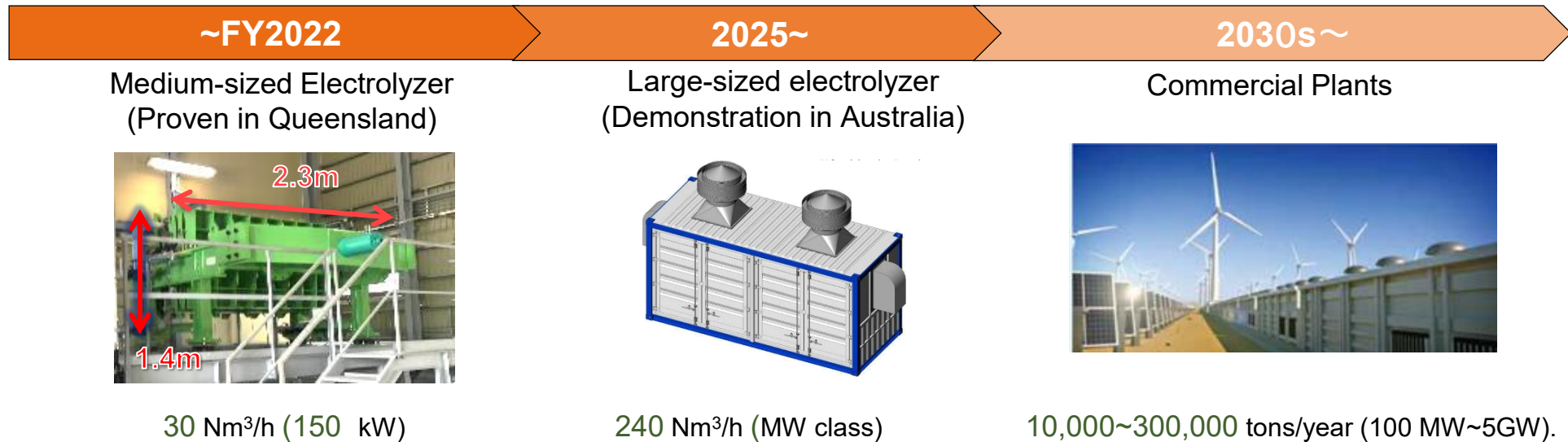


Image of the manufacturing method using the new technology (Direct MCH®)



Direct MCH[®] Development Roadmap

- Completed a MCH manufacturing plant with a 150kW electrolyzer and 250kW solar equipment (January 2023)
- Scaling up demonstration step-by-step through FY2025, and targeting commercialization in FY2030 and beyond



Field photo of a medium-sized demonstration plant (January 2023)



From left, Consul General Ono in Brisbane, ENEOS Vice President Miyata, QLD Deputy Prime Minister Stephen Miles, Mick De Breni, Minister of Hydrogen, NEDO PM Kugimiya;

Key Success Factor for Supply Chain Development

- Leveraging the strengths of existing assets and downstream business strengths to advance the implementation of a hydrogen society
- Contributing to a sustainable and carbon-neutral future through global collaboration



ENEOS's Capability

Connections with end-users for energy supply in Japan

Technology for competitive supply chain development



Global Collaboration

Competitive resources for hydrogen production

Collaboration among key stakeholders

