

Japan's hydrogen policy

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Japan's Strategies & Policies towards Hydrogen Economy

- Japan is the first country to formulate National Hydrogen Strategy.
- Prime Minister set 2050 carbon neutral declaration, and Japan positioned hydrogen as one of the priority areas in the Green Growth Strategy in 2020.
- Japan is trying to expand the amount of hydrogen introduction and reduce hydrogen cost through the Green Innovation fund projects and other measures.

Situation and status of strategy formulation

2017
National Hydrogen Strategy

2020
PM's 2050 CN Declaration
Green Growth Strategy

2021
Green Innovation Fund
Revised Strategic Energy Plan

Targets

□ Supply & Demand volume:

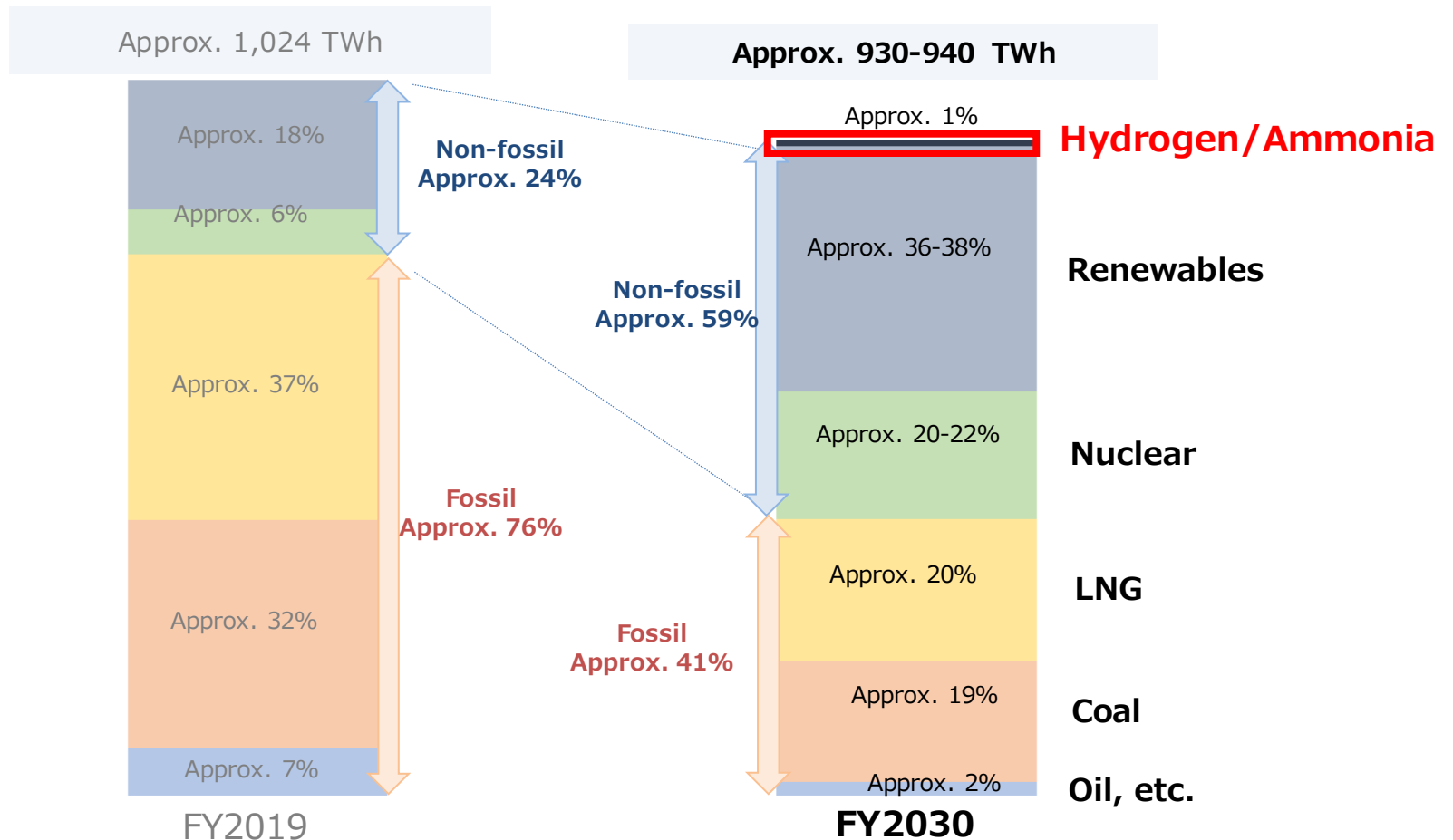
Current (Approx. 2Mt) → 2030 (Approx. 3Mt) → 2050 (Approx. 20Mt)

□ Hydrogen cost:

Current (JPY100/Nm³) → 2030 (JPY30/Nm³) → 2050 (Less than JPY20/Nm³)

Power Generation Mix in 2030

- The Strategic Energy Plan (revised in 2021) shows updated power generation mix target toward FY2030.
- It requires improvement of more energy efficiency and renewable energy deployment. In addition, it allocates 1% for hydrogen and ammonia in 2030 power generation mix.



Hydrogen Supply and Demand (Rough Roadmap)

Supply side

	Short term (-2025)	Mid term (-2030)	Long term (-2050)
Actual·Target Volume / Sources	Approx. 2 mil ton	Up to 3 mil ton	Approx. 20 mil ton
Existing Source (Byproduct, etc.)	Major supply source	Transition to Clean Hydrogen (Utilization of CCUS, etc.)	
Import (Blue, Green, etc.)	Demonstration phase	Establishment of global hydrogen supply chain on commercial basis	Expansion of scale through diversification
New Domestic Supply Source (Electrolysis, etc.)	Demonstration phase	Transition to commercial phase	Expansion of scale (incl. introduction of new technologies)

Demand side

	Short term (-2025)	Mid term (-2030)	Long term (-2050)
Actual·Target Volume / Sectors	Approx. 2 mil ton	Up to 3 mil ton	Approx. 20 mil ton
Transportation	FCV, FC Bus + Introduction of FC Trucks	+ FC Ships etc.	+ Aircraft etc.
Power Generation	Stationary fuel-cells, Small gas turbines etc.	Commercialization of large size power generation	+ Using as the flexibility of power system
Industrial Sector	R&D, Demonstration phase (steel and chemical production process etc.)		H2 reductant steelmaking, green chemical etc.
Heat Demand (industrial/commercial /residential)	Demonstration phase / Commercialization in limited areas		Expansion of scale (through cost reduction and infrastructure development)

Bold New Support Measures for Commercialization

- METI established a new subcommittee for hydrogen policy in March.
- The subcommittee examines ways to expand the introduction and **commercialization of hydrogen and ammonia**, focusing on the **price difference with existing fuels** and the state of infrastructure development.
- **PM Kishida** stated in his April speech that he would take **"bold support measures"** regarding hydrogen policy.



"I recognize that the transition to hydrogen-based society will be the key to decarbonization."

"I would like to take bold support measures in line with the goal of achieving carbon neutrality in collaboration with the public and private sectors regarding the scale of investment to promptly expand the introduction of hydrogen from both aspects of hydrogen supply and demand."

Hydrogen Energy Ministerial Meeting (HEM)

- Japan launched the Hydrogen Ministerial Meeting (HEM) in 2018.
- HEM is **the most ideal meeting for hydrogen-related ministers and top executives** to express and discuss directions to build hydrogen society and future initiatives.
- **HEM 2022 is scheduled on 26th September 2022.**



2020

23 representatives from countries, region and organizations
2800 registrations/**+10,000** views
GLOBAL ACTION AGENDA PROGRESS REPORT

2019

35 countries, region and organizations
600 attendees
GLOBAL ACTION AGENDA

2018

21 countries, region and organizations
300 attendees
TOKYO STATEMENT

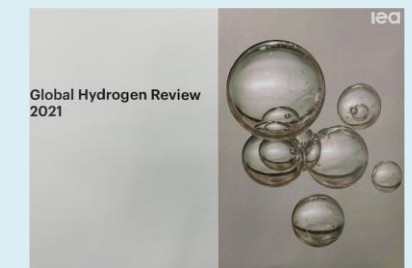
- Harmonization of Regulation, Codes and Standards
- Joint Research and Development
- Study and Evaluation of Hydrogen's Potential
- Education & Outreach

2021

30 representatives from countries, region and organizations
3200 registrations



SHARED POLICY DIRECTIONS
IEA GLOBAL HYDROGEN REVIEW



Thank you for your kind attention!