

# **Japan's Hydrogen Strategy**

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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:

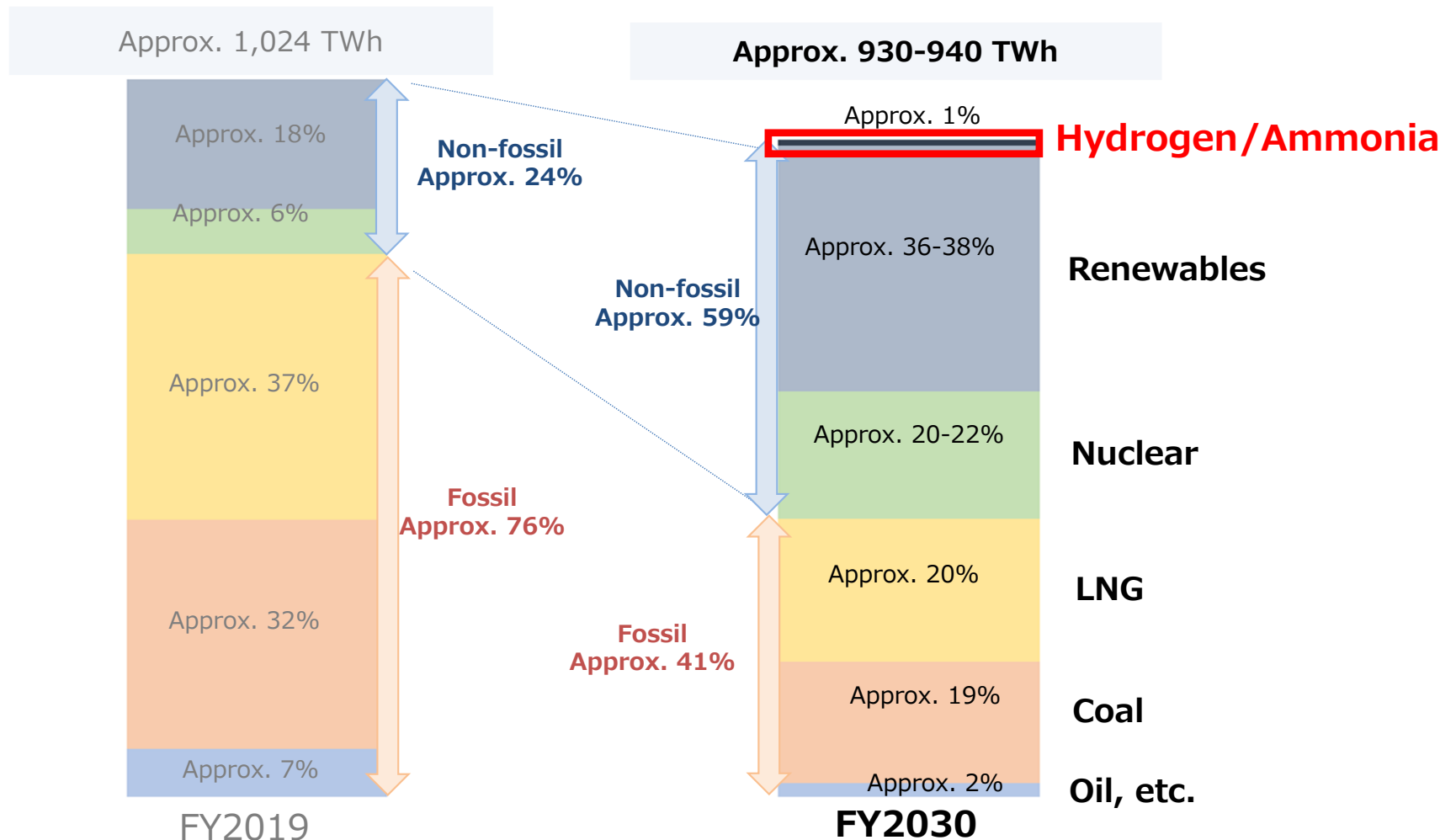
Current (Approx. 2Mt) → 2030 (Approx. 3Mt) → 2050 (Approx. 20Mt)

### ❑ Hydrogen cost:

Current (JPY100/Nm<sup>3</sup>) → 2030 (JPY30/Nm<sup>3</sup>) → 2050 (Less than JPY20/Nm<sup>3</sup>)

# 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
<b>Existing Source</b> (Byproduct, etc.)	Major supply source	Transition to Clean Hydrogen (Utilization of CCUS, etc.)	
<b>Import</b> (Blue, Green, etc.)	Demonstration phase	Establishment of global hydrogen supply chain on commercial basis	Expansion of scale through diversification
<b>New Domestic Supply Source</b> (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
<b>Transportation</b>	FCV, FC Bus + Introduction of FC Trucks	+ FC Ships etc.	+ Aircraft etc.
<b>Power Generation</b>	Stationary fuel-cells, Small gas turbines etc.	Commercialization of large size power generation	+ Using as the flexibility of power system
<b>Industrial Sector</b>	R&D, Demonstration phase (steel and chemical production process etc.)		H2 reductant steelmaking, green chemical etc.
<b>Heat Demand</b> (industrial/commercial /residential)	Demonstration phase / Commercialization in limited areas		Expansion of scale (through cost reduction and infrastructure development)

# Bold New Support Measures for Commercialization

- Minister Hagiyuda 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 will be held in late of 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**

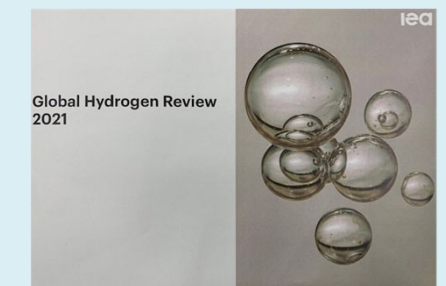
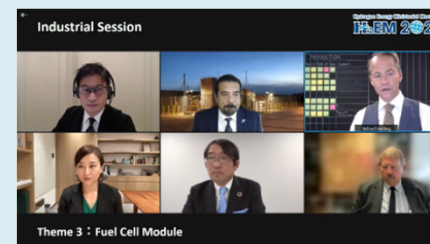
- Harmonization of Regulation, Codes and Standards
- Joint Research and Development
- Study and Evaluation of Hydrogen's Potential
- Education & Outreach

**2021**

**30** representatives from countries, region and organizations  
**3200** registrations



**SHARED POLICY DIRECTIONS  
 IEA GLOBAL HYDROGEN REVIEW**



**Thank you for your kind attention!**