LNG imports in Japan

15 April 2024

Yumiko YAO

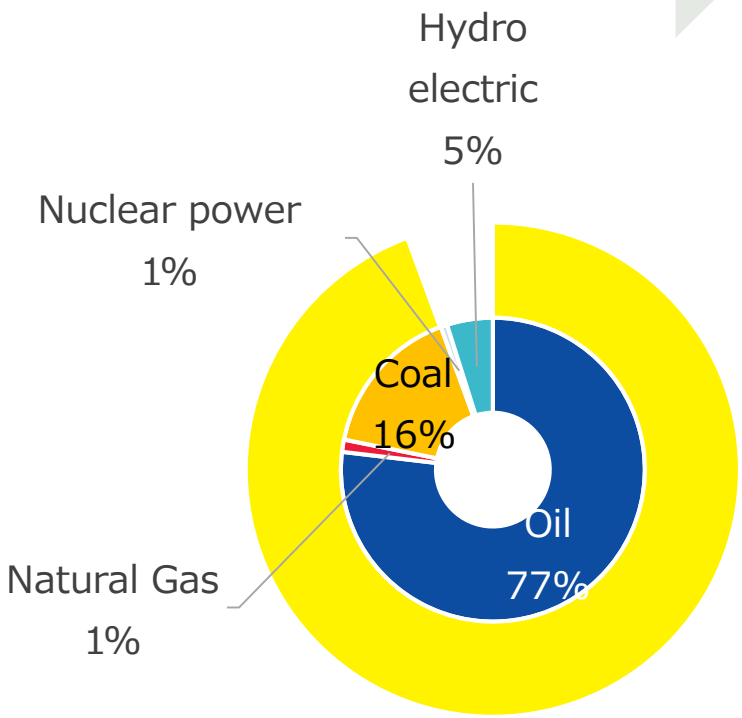
Tokyo Gas, LNG Business Dept.

TOKYO GAS GROUP

Energy Mix and Self-sufficiency ratio in Japan

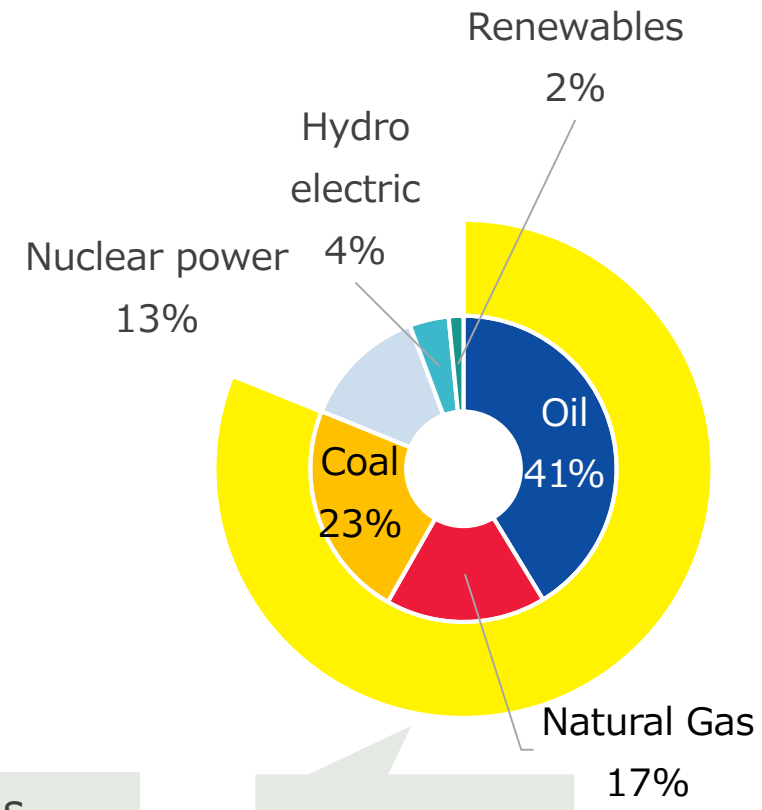
TOKYO GAS GROUP

1973



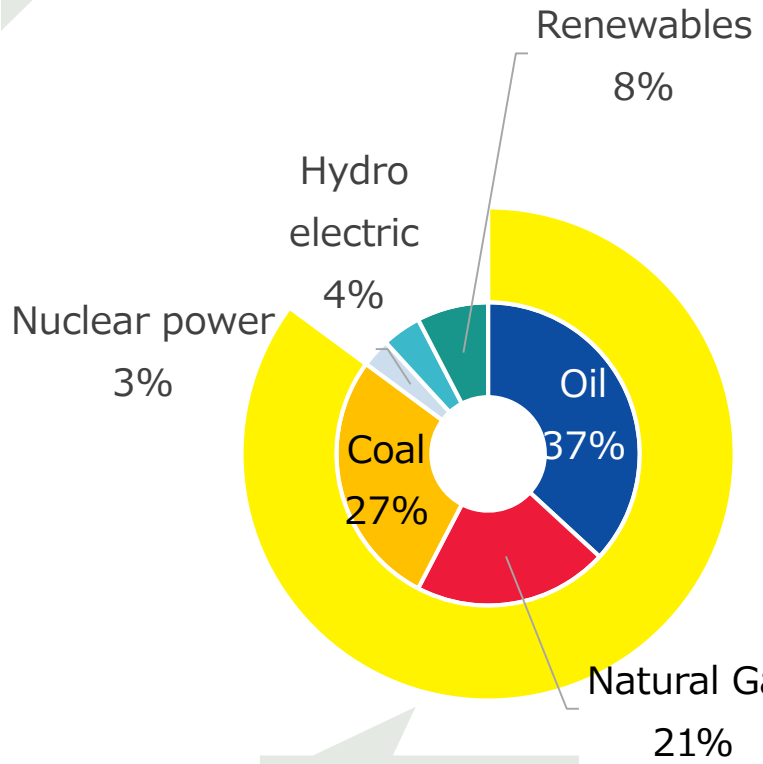
Dependency on fossil fuels
94%

2010



81%

2021

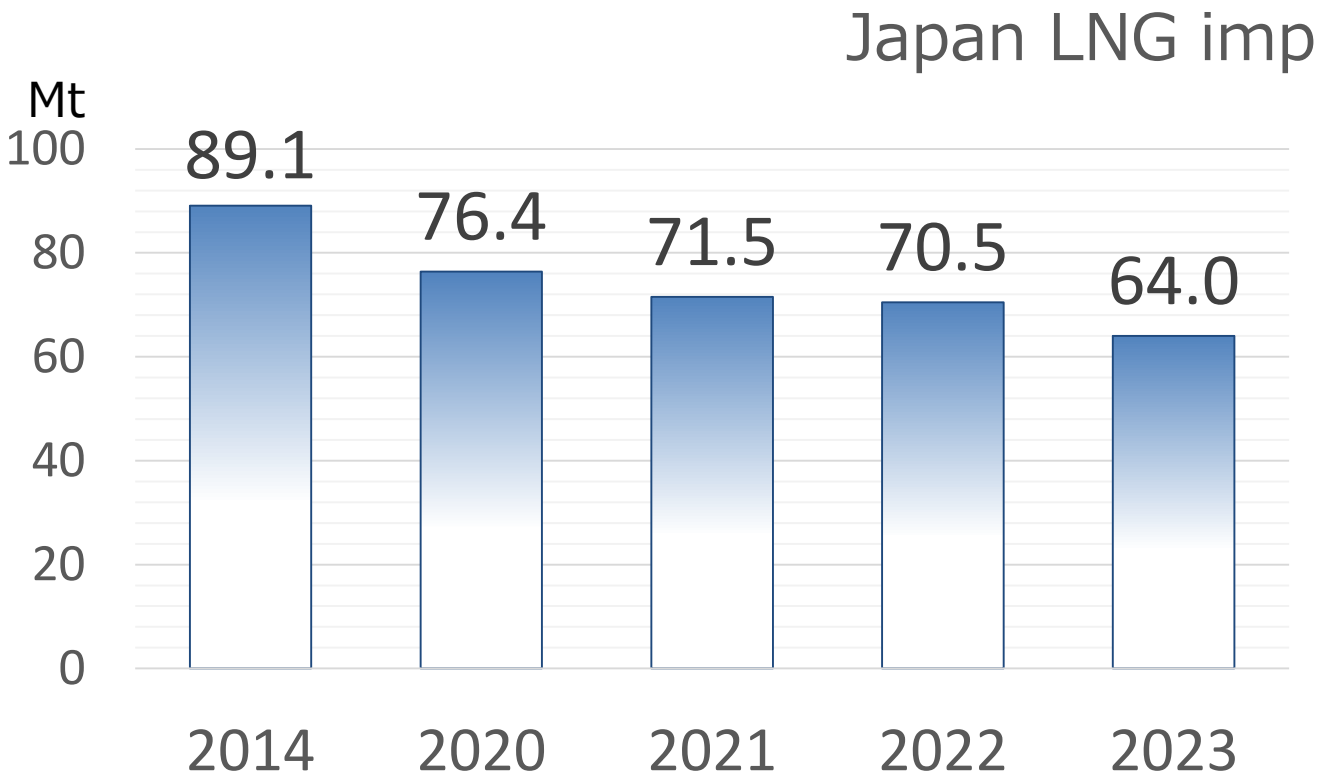


85%

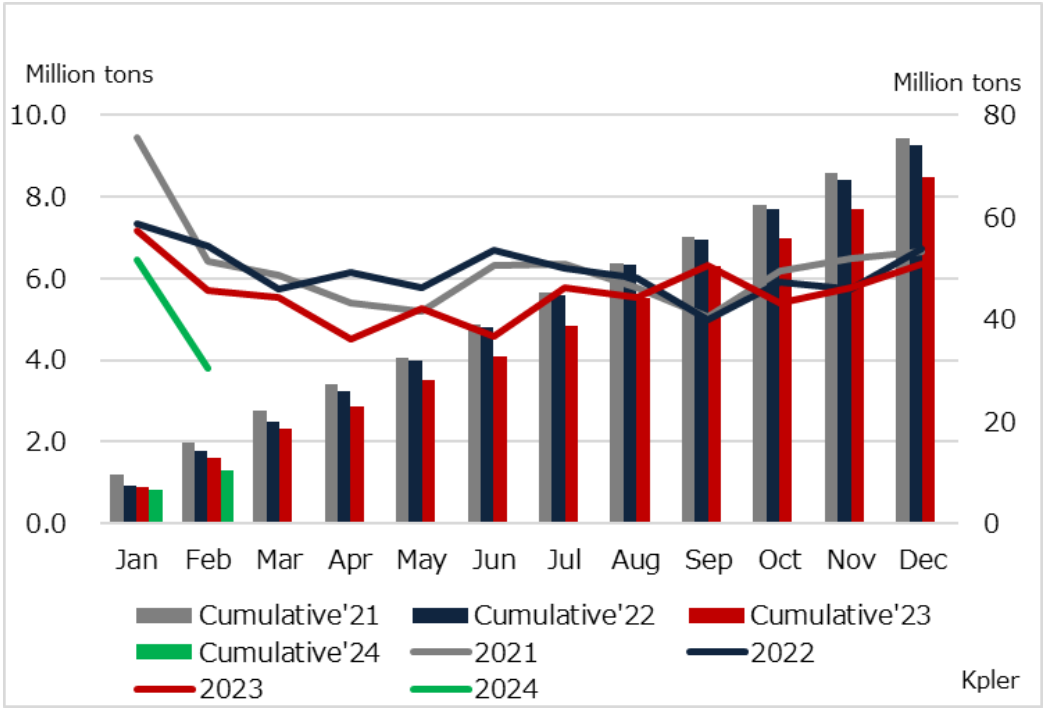
Source : Agency for Natural Resources and Energy

Japan LNG imports

- LNG imports in Japan had increased due to the Great East Japan Earthquake in 2011, but have been declining from a peak of 89 million tons in 2014.
- Japan LNG imports volume was 64.0 million tons in 2023.



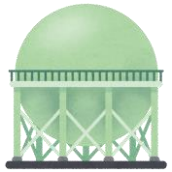
Source : Trade Statistics of Japan

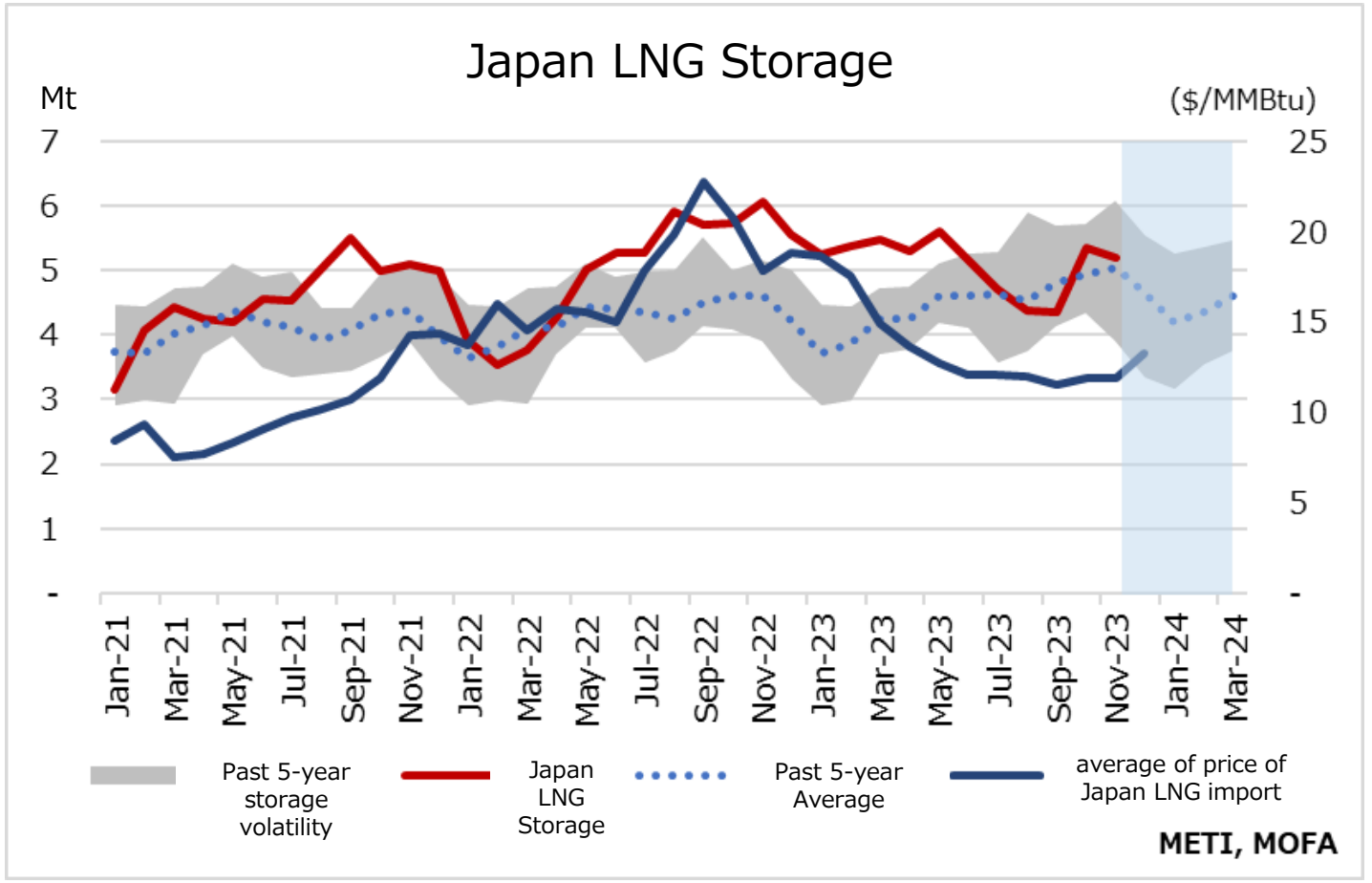


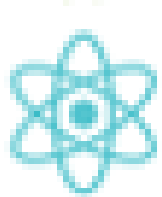
Source : JOGMEC

Factors behind the decrease of LNG demand

- High storage since 2022, relatively mild weather, nuclear reactors restarted, and economic stagnation have lowered LNG imports in 2023.
- Other possible factors include continued growth of non-fossil fuels, progress in energy conservation, electrification, and declining rates of staying rates.







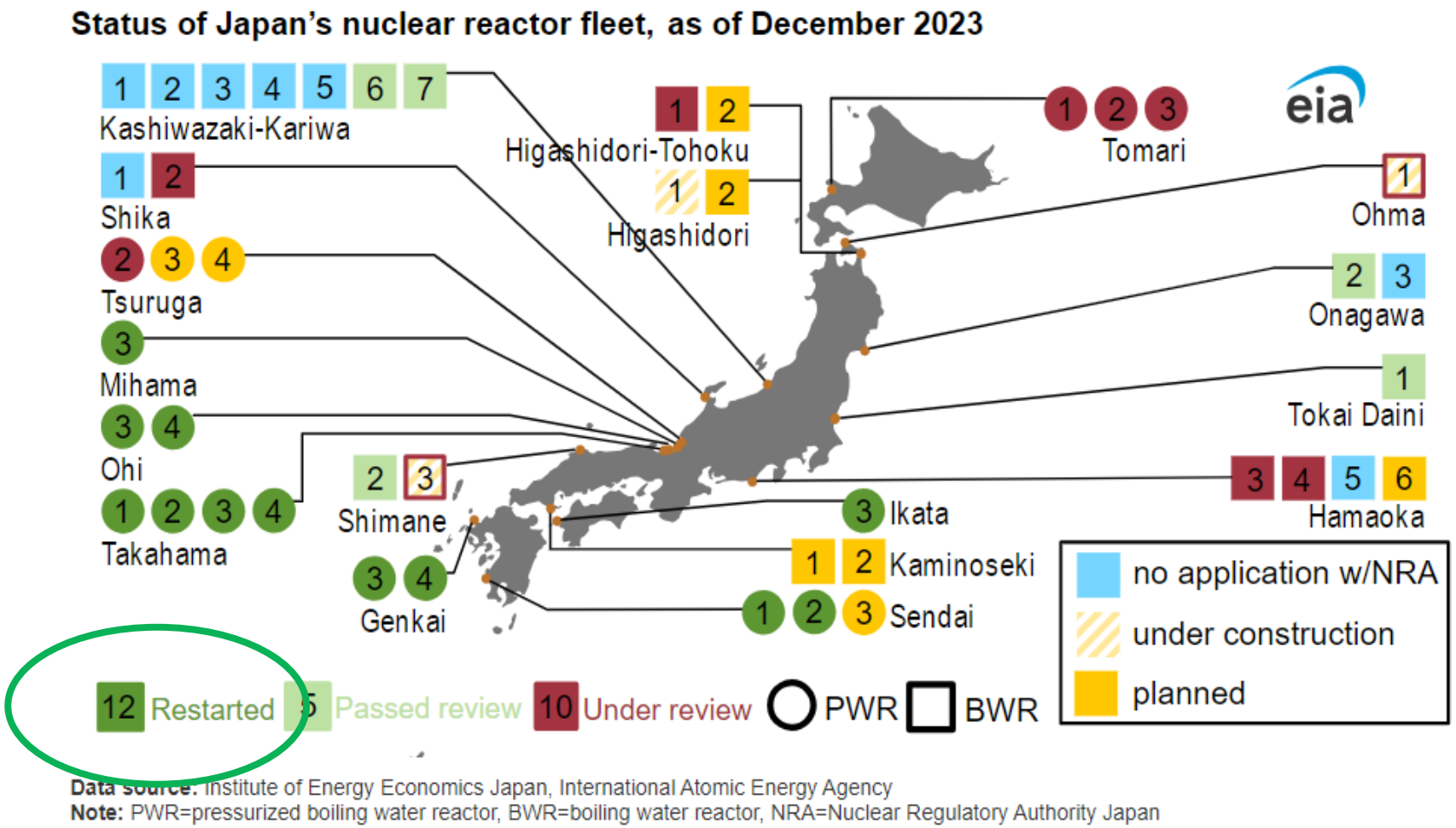
nuclear power output increased

higher renewable power generation

Nuclear situation

TOKYO GAS GROUP

- The number of restarted nuclear power plants has increased to 12.
- There is still a high degree of uncertainty about how nuclear power will be utilized.

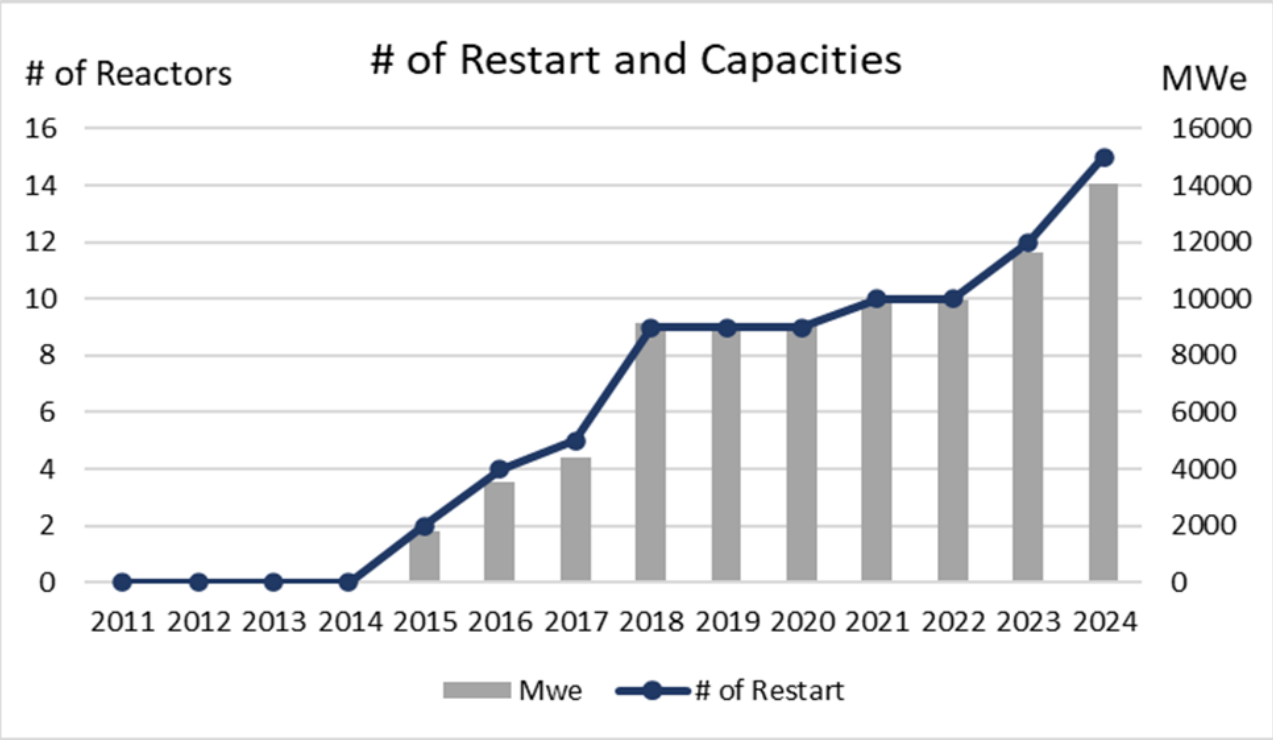


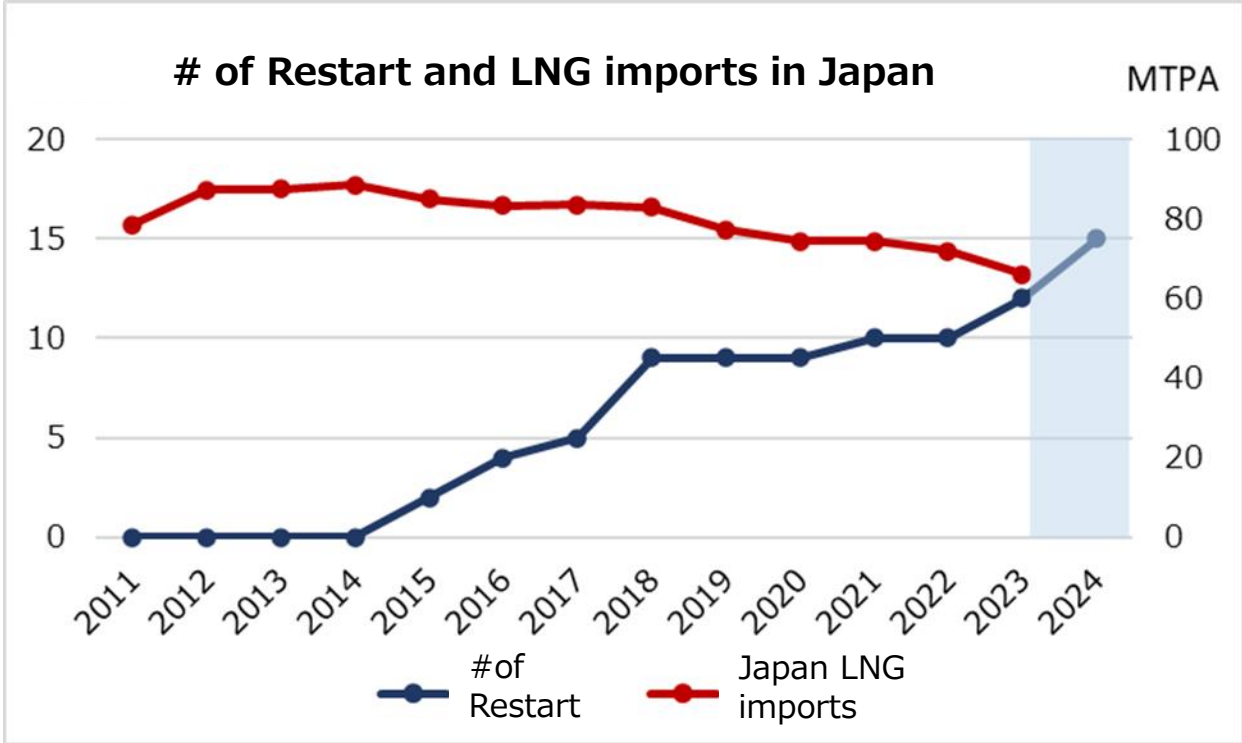
Source : U.S. Energy Information Administration

Nuclear situation

TOKYO GAS GROUP

◆ The relationship between the restart of nuclear power generation and the volume of LNG imports is shown. LNG imports are decreasing as nuclear power resumption increases.

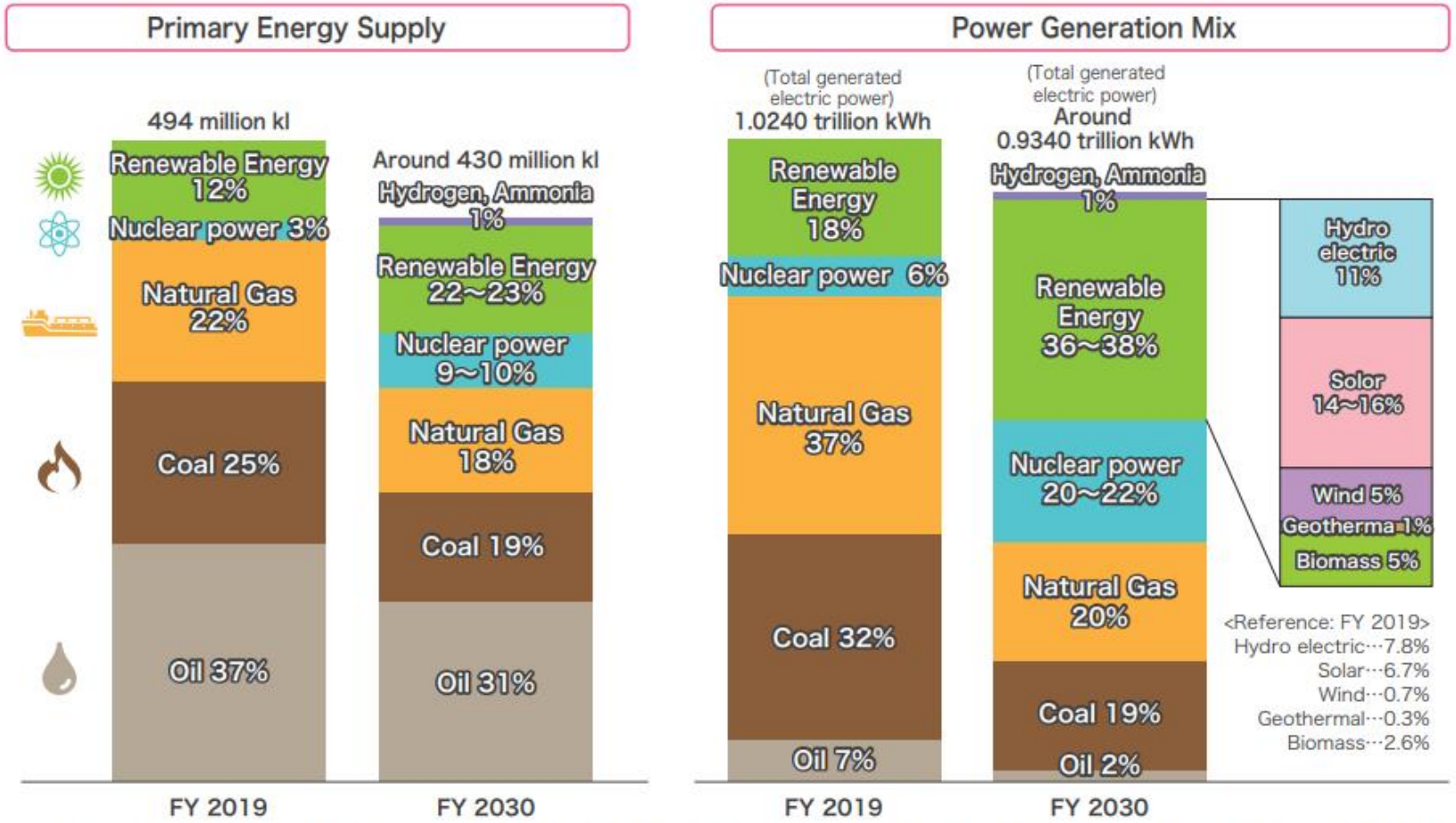




Source : JOGMEC

the 6th Strategic Energy Plan in 2021

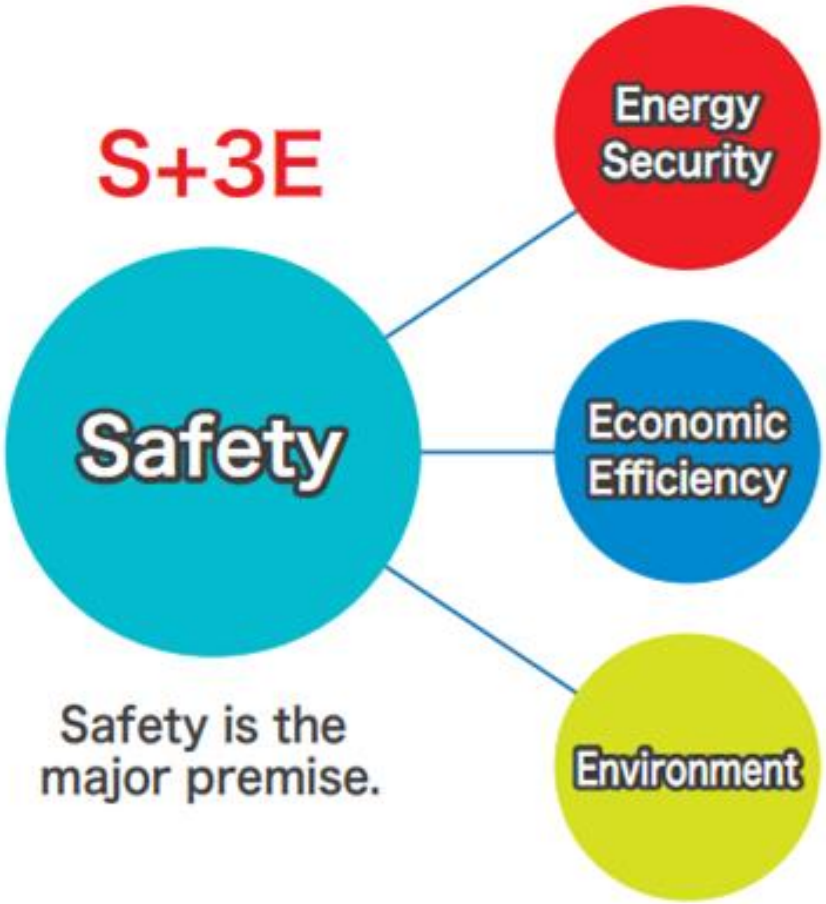
◆ The Government of Japan published the 6th Strategic Energy Plan October 2021.



Source: "Comprehensive energy statistics of Japan"; 2019 confirmed figures published by the Agency for Natural Resources and Energy, outlook for energy supply and demand in FY2030 (related materials)
* The sum of the values shown may not be 100% in some cases for a reason of round values.
* Renewable energy here, including geothermal power, wind power, and solar power, but not hydroelectric power, includes unused energy.

Source : Agency for Natural Resources and Energy

Basic energy policy



Energy Security (Self-sufficiency rate)

Exceed the level from before the Great East Japan Earthquake (around 20%).
Approximately 30% in FY 2030 (12.1% in FY2019)

Economic Efficiency (Electricity cost)

Expected to be 8.6 to 8.8 trillion yen in 2030, which is lower than 9.7 trillion yen in 2013

Environment (Greenhouse gas emissions)

Expected to be down by 46%* in FY2030 compared to FY2013, which is an ambitious reduction target consistent with 2050 carbon neutrality.

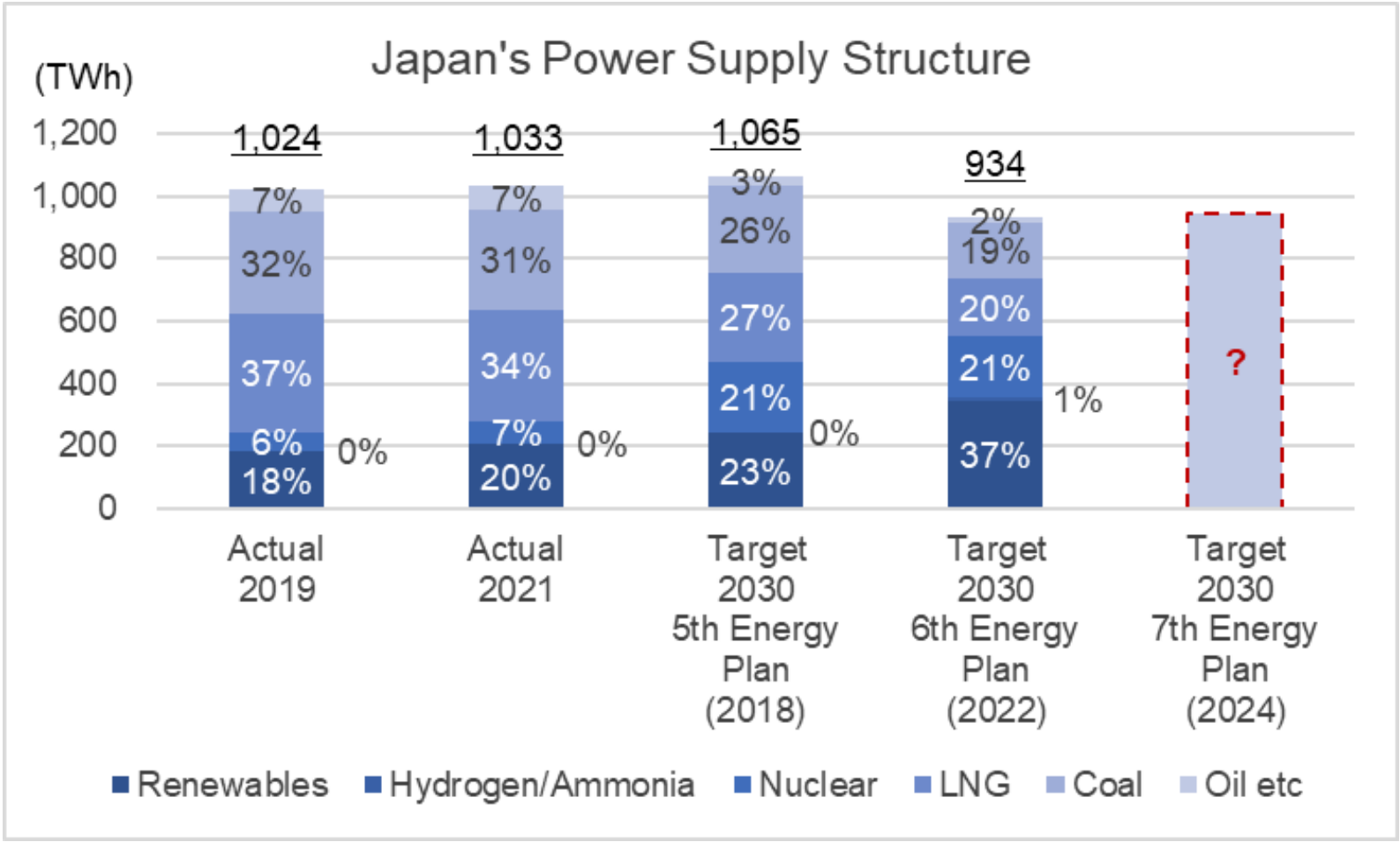
* Reduction target for all greenhouse gases including CO_2 from non-energy sources, etc.

Source : Agency for Natural Resources and Energy

Japan's Energy Strategy under Intensive Discussion

- New Plan scheduled in 2024

- Focal points:
  - ✓ Nuclear
  - ✓ LNG
  - ✓ Hydrogen / Ammonia

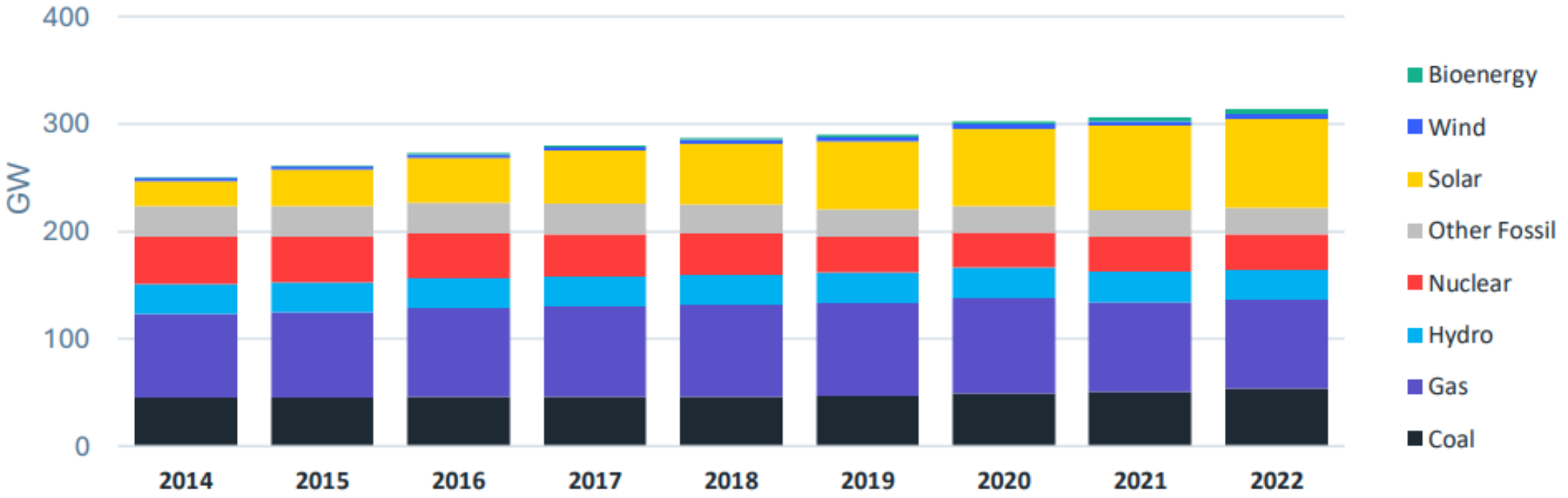


Source : JOGMEC

Japan's Power Generation Capacity by source

TOKYO GAS GROUP

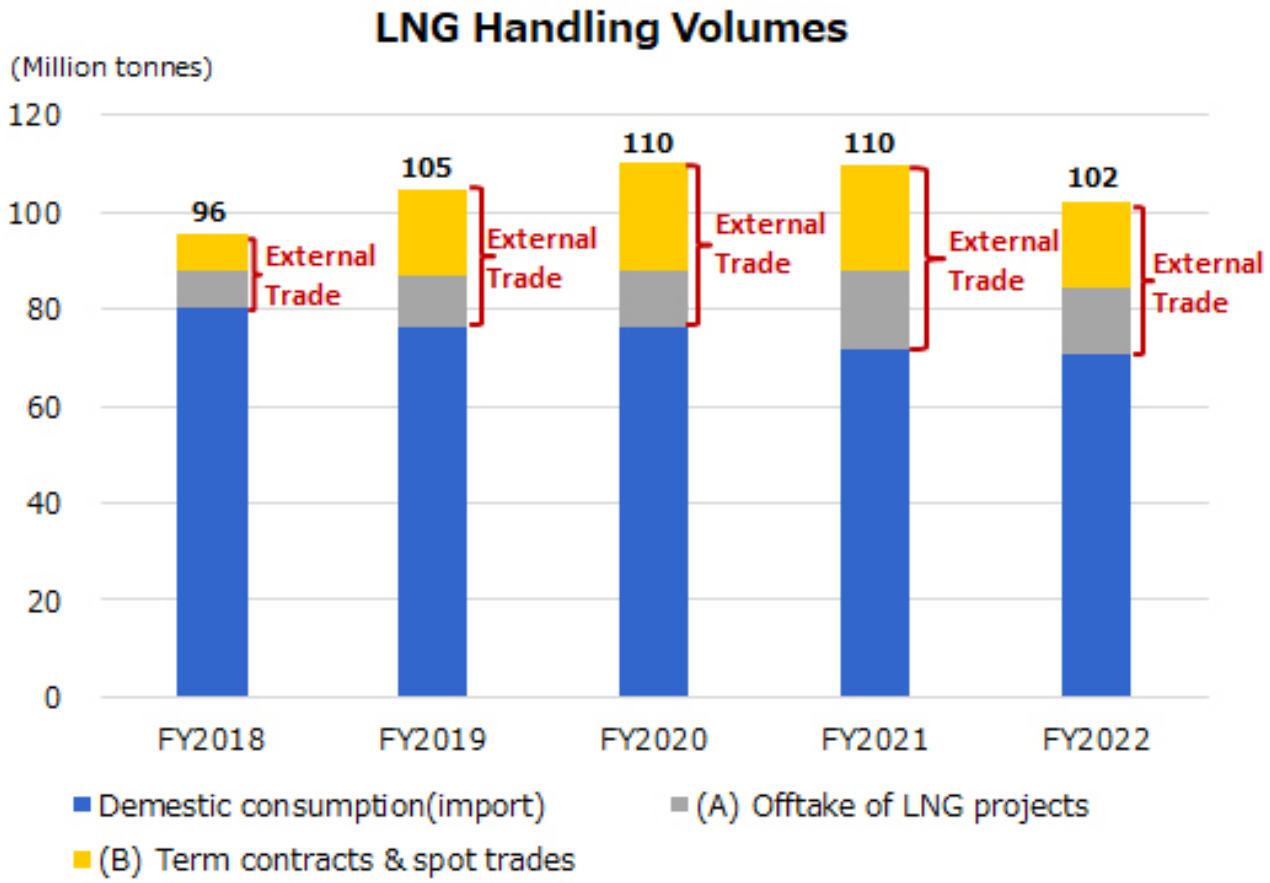
Japan's Power Generation Capacity, 2014 to 2022, Gigawatts (GW)



Source :EMBER

LNG Handling Volume by Japanese Companies

- The government policy of "New Strategy for International Resources" (March 2020) sets a target of 100 million tons of LNG volume handled by Japanese companies by FY2030, including so called “external trade”.
- The result is LNG handling volume by Japanese companies in FY2022 was 102.12 Mt. This is a significant decrease of 7.45 Mt from the previous year, but the companies have continuously achieved 100 Mt since FY 2019.



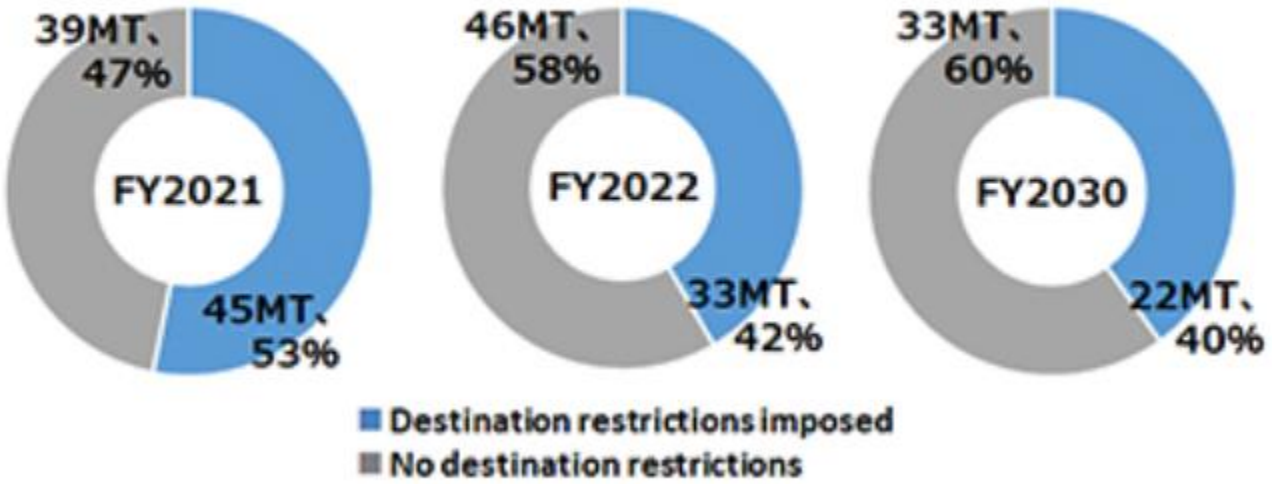
Survey on Destination Clauses in LNG SPAs of Japan

TOKYO GAS GROUP

- The annual contract quantity (ACQ) for which destination restrictions are imposed will decline from 75% (46 Mt) in FY2016 to 46% (29 Mt) in FY2025.

<Trends in destination restrictions>

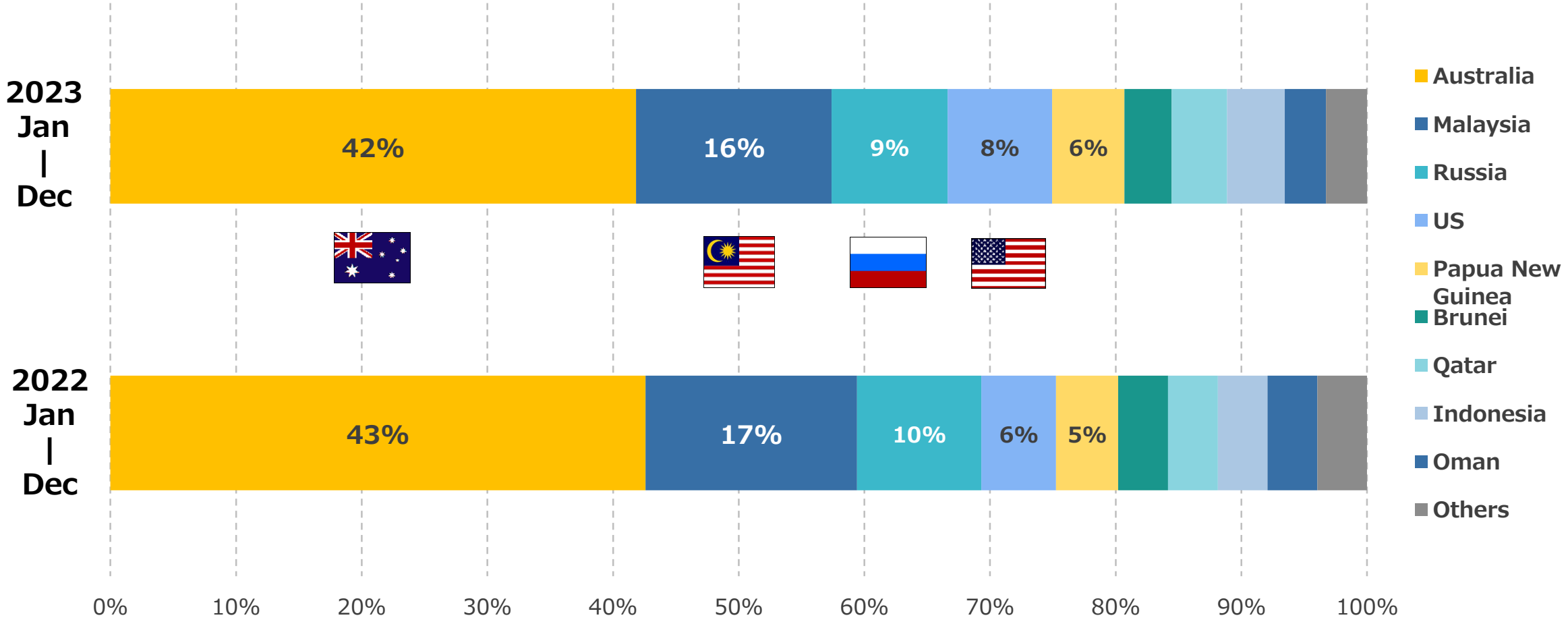
<Comparison of destination restrictions>



Japan LNG Imports by source（2022, 2023）

TOKYO GAS GROUP

- Japan imports LNG from various regions. The largest share was Australia, followed by Malaysia.



Source : Trade Statistics, Ministry of Finance of Japan

Tokyo Gas's LNG Imports (Main Long-term Contracts)

TOKYO GAS GROUP

◆ To ensure supply security, price competitiveness, and flexible quantity, we believe three kinds of diversification are important.

1.Supply sources

■Expanding supply sources (Asia,Australia, Europe, North America, and Africa, for example) to ensure supply security

2.Contract terms

■Introducing a hub-indexed pricing mechanism

■Improving liquidity by increasing destination free clauses

3.Global LNG network

■Working with global partners to connect markets, improve LNG transportation costs, and ensure flexible adjustments to supply and demand

まとめ

- Japan is focusing on the volume of Japanese involvement, including external trade.
- We believe that the demand for flexible LNG that can be resold will continue to increase.
- The Japanese Energy Plan is scheduled to be revised in 2024.
- After the sharp drop in demand recorded in 2023, this forecast expects only a slight decline in natural gas demand in 2024.
- Supply and demand adjustment through flexible contracts and trading will remain significant important

Thank you