

Update on Oil and Gas Security in Japan

The 7th APEC Oil and Gas Security Network Forum

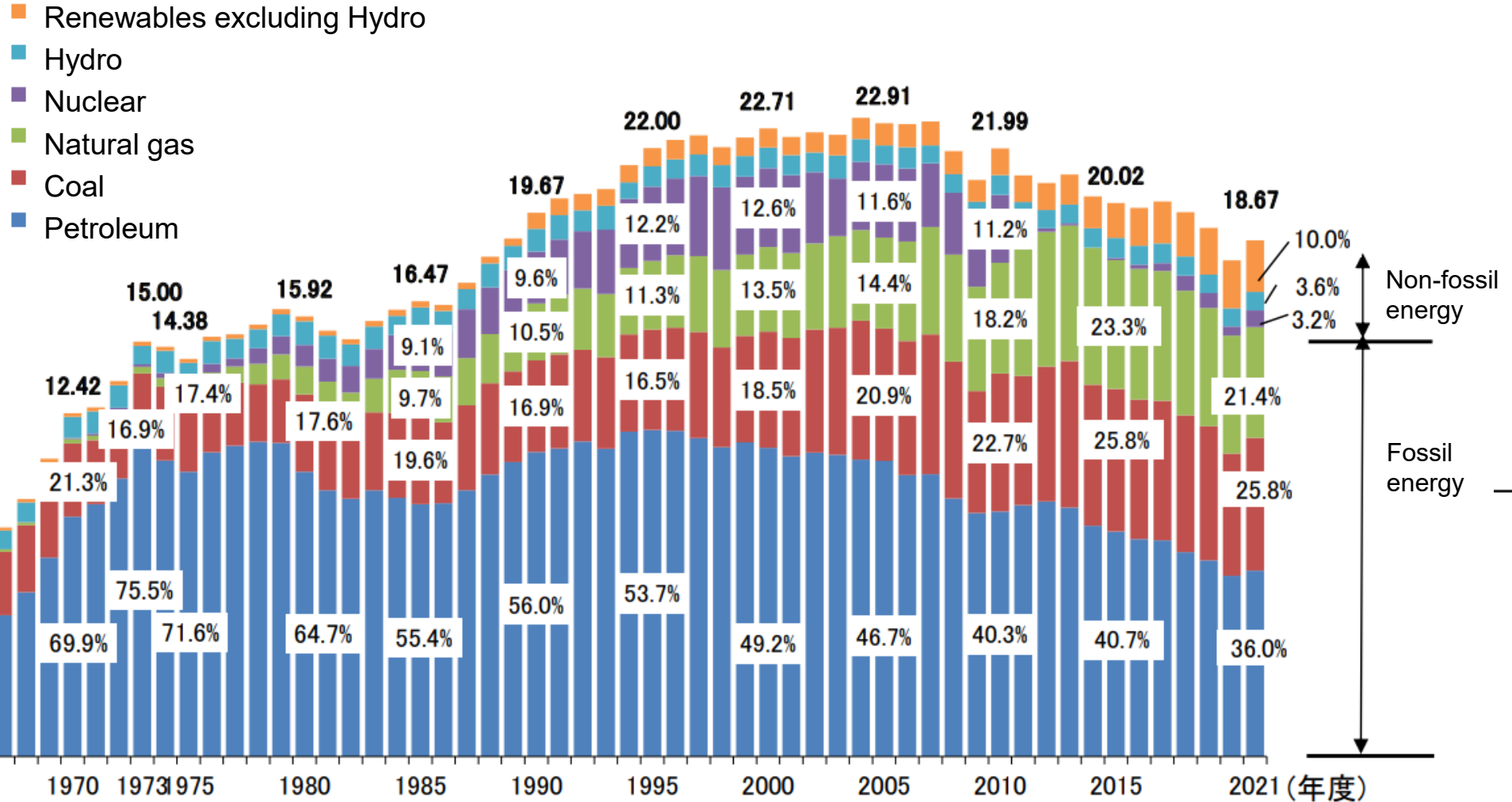
20 March 2024

Agency for Natural Resources and Energy
Ministry of Economy, Trade and Industry, Japan

Japan's Energy Supply Structure

Change in domestic supply of primary energy

(EJ)



(Note 1) Calculation method changed in FY1990 and following years in General Energy Statistics of Japan.

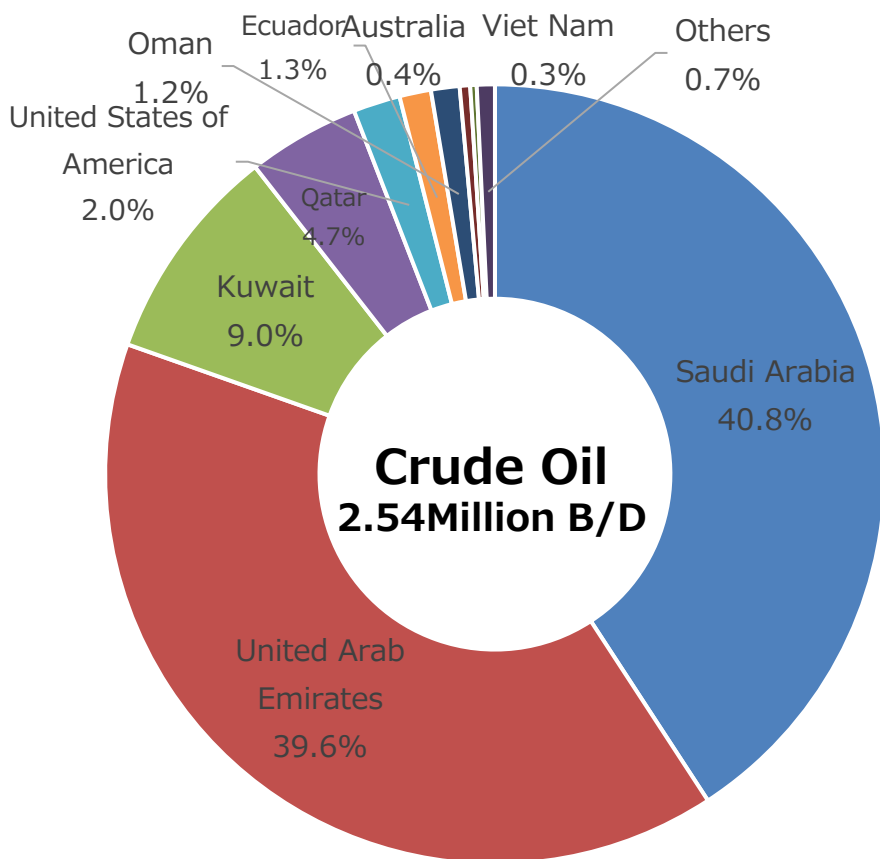
(Note 2) New energy, geothermal, etc. include solar power, wind, biomass, geothermal, etc. (the same hereinafter).

Reference: Created on the basis of Agency for Natural Resources and Energy "General Energy Statistics of Japan."

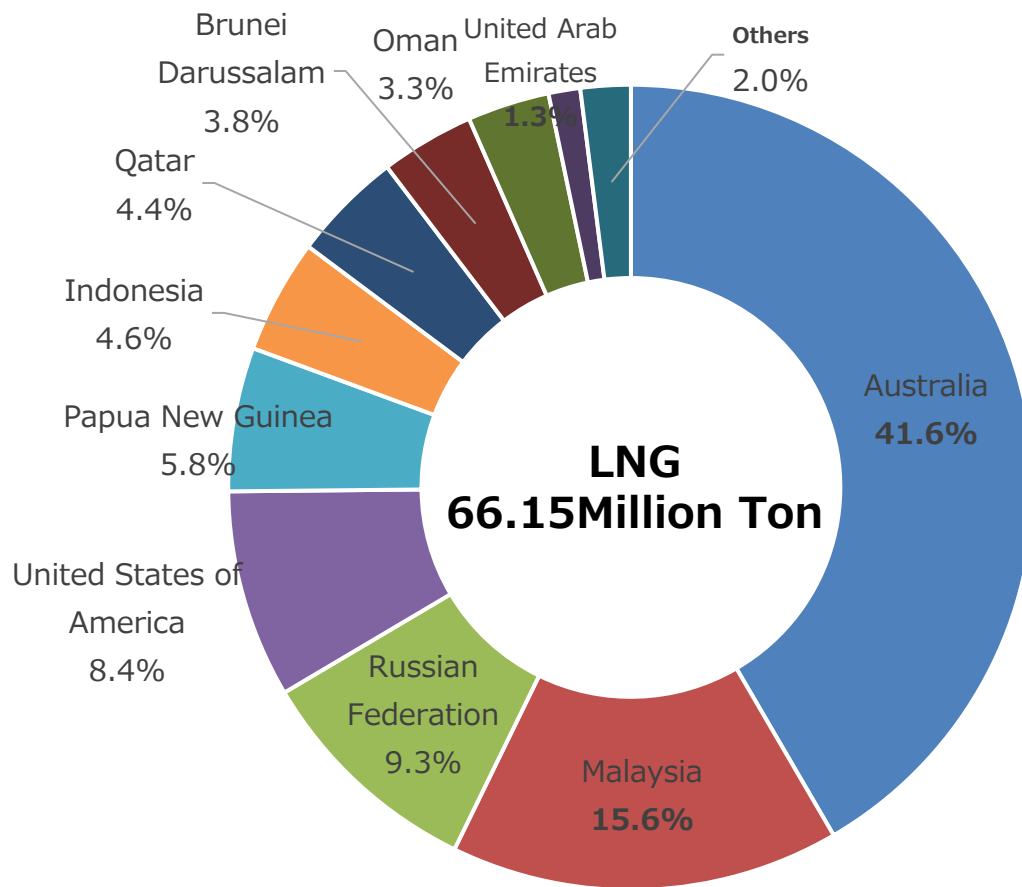
Low Self Sufficiency Rate

	Self-sufficiency rate of primary energy (2022)
Japan	13% (Oil:0% Gas:2% Coal:0%)
USA	107% (Oil:102% Gas:111% Coal:120%)
Canada	189% (Oil:292% Gas:142% Coal:359%)
UK	67% (Oil:73% Gas:54% Coal:9%)
France	49% (Oil:1% Gas:0% Coal:0%)
Germany	35% (Oil:3% Gas:5% Coal:51%)
Italy	22% (Oil:10% Gas:5% Coal:0%)

Fossil fuel import destinations in Japan (2023)



Middle East 95.4%



Middle East 9.0%

Japan's Oil Stockpiling System at a Glance

1) Government oil stockpiling:

The Government of Japan owns oil stocks and JOGMEC manages the stocks in accordance with the Oil Stockpiling Act.

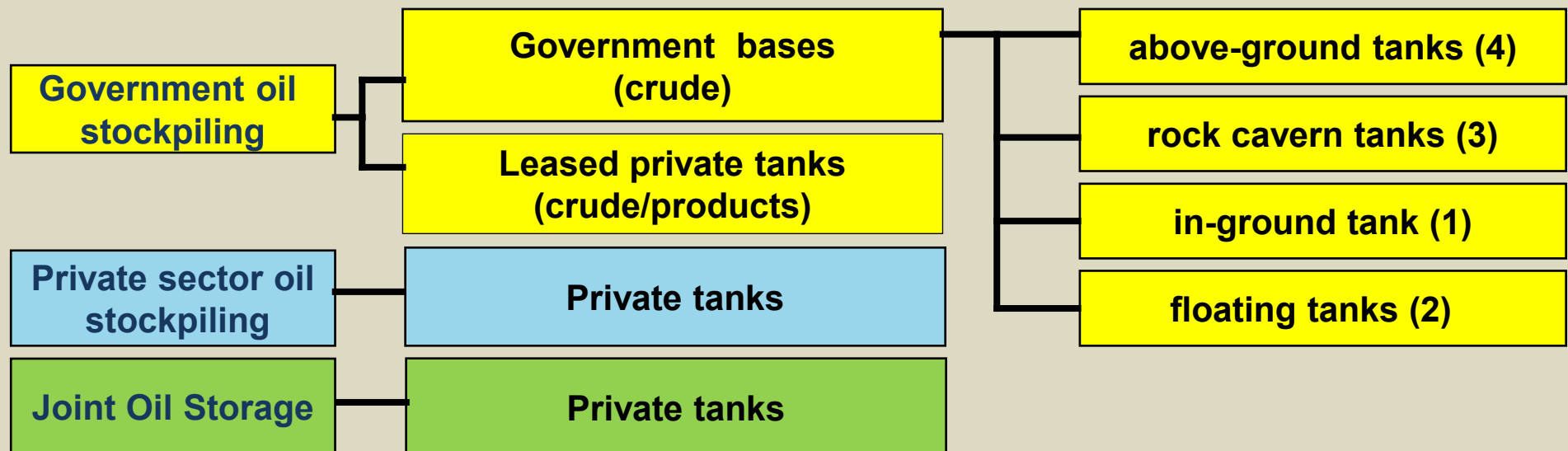
2) Private sector oil stockpiling:

Private companies such as oil refiners, distributors, and importers are obligated to maintain a certain amount of oil stocks in their tanks in accordance with the Act.

3) Joint Oil Storage projects with Oil producers:

The projects have been carried out with Saudi Arabia, UAE and Kuwait.

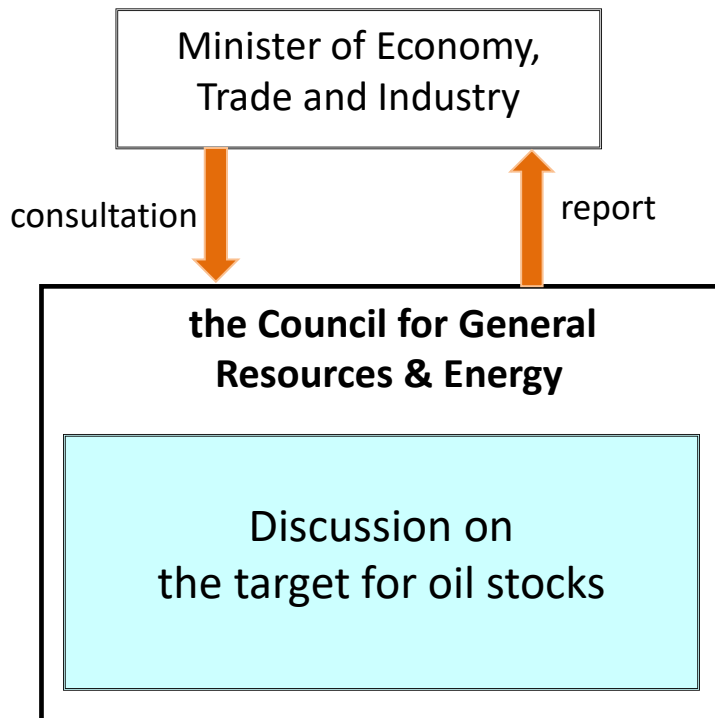
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Current Oil Stockpiling Targets

- Oil Stockpiling Act requires the Minister of METI to set a 5-year target for oil stocks based on the council's report every year.
- Since FY2015, the target account has been changed from quantity-base to day-base. This change allows us to have more flexibility on our stockpiling, to some extent, while keeping it at a certain level.

Process for setting the target



The Target of FY2022 – FY2026

- **Each oil reserve shall not be less than the following amounts**
 - **Government stocks**
about a 90-day equivalent of import volume, including one-half of Joint Oil Storage
 - **Private stocks**
70-day equivalent of domestic demand

Current Status of Stockpiling in Japan

As of December 2023, the amount of stocks is as follows:

Total : **201 days of net imports** (approx. 450 million barrels) >> IEA obligation (90 days)

1) Government oil stockpiling:

116 days of net imports (approx. 260 million barrels)

2) Private sector oil stockpiling:

79 days of net imports (approx. 170 million barrels)

3) Joint Oil Stocks with Oil producers:

7 days of net imports (approx. 16 million barrels)

LNG Producer-Consumer Conference 2023

- At the IEA Extraordinary Ministerial Meeting held in February 2022, Japan proposed to hold a forum for dialogue between IEA members and natural gas and LNG producers and consumers, and this was jointly held for the first time with the IEA.
- A joint statement was signed by the governments of Japan, the U.S., Korea, Australia, and the EC in support of the CLEAN (Coalition for LNG Emission Abatement toward Net-zero: Methane Emission Reduction Initiative) initiative, which would be implemented in cooperation with JERA, KOGAS, and JOGMEC.
- "The LNG Strategy for the World" was released as the Chairman's Summary.

1. Outline

- Date and time: from 4:00 PM to 7:00 PM, July 18, 2023
- Venue: Grand Prince Hotel Shin Takanawa & Online
- Program
 - Session 1: Opening from Prime Minister Kishida
 - "CLEAN" announcement
 - 1) Brief speech by JOGMEC, JERA, KOGAS
 - 2) Speeches and signing ceremony of joint statement by governments of Australia, Japan, US, Korea, EC
 - Ministerial session

3. Outcomes

- Initiate discussions on enhancing IEA's role for natural gas and LNG sector.
- Announcement about addressing methane emissions.
 - (1) new public-private concrete framework by JERA-KOGAS-JOGMEC.
 - (2) joint declaration among the governments of Japan, Korea, the U.S., Australia, and the EC.
- Announcement of a new initiative by NEXI (Nippon Export and Investment Insurance) to improve LNG liquidity.

2. Major participants

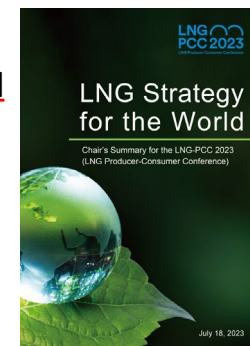
17 Participants including Japan and the IEA (6 are in person, 2 are via online).

- Mr. Yasutoshi Nishimura, Minister of Economy, Trade and Industry
- H.E. Saad Sherida Al-Kaabi, Minister of State for Energy Affairs, State of Qatar (Video message)
- H.E. Rahm Emanuel, Ambassador to Japan United States of America
- Ms. Ditte Juul Jørgensen, Director-General, Directorate-General for Energy, European Commission

<LNG Strategy for the World>

The LNG Strategy for the World summarized
voluntary commitments such as policy
announcements to

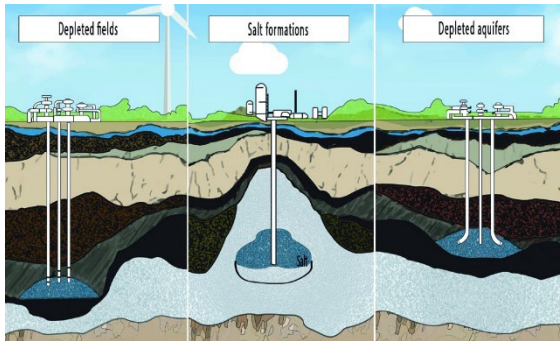
- (1) strengthen the security of the LNG and natural gas markets and
- (2) make a cleaner LNG value chain.



Various ways for securing gas “reserve”

① Physical reserves

Underground gas storage



Natural gas is stored physically underground at suitable geological formations

Commonly used in EU and the US utilizing depleted gas reservoirs

This could secure gas at large scale and for long time, however storage sites are not always available globally

② Policy measures

Buffer LNG capacity



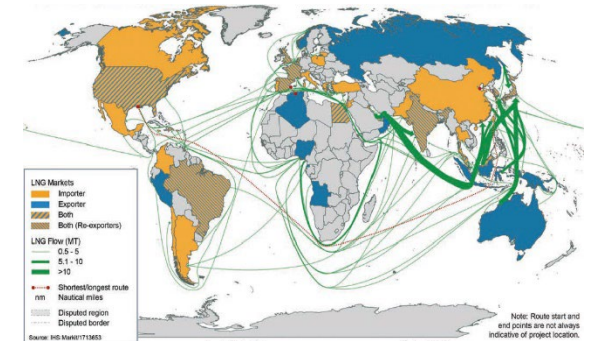
Additional LNG procurement and storage capacity can work as a buffer against market imbalance

Used by LNG importers, excess volumes may be traded

Most recent examples include Singapore’s “Standby LNG Facility” and Japan’s “Strategic Buffer LNG”

③ Flexible commercial options

Contracting flexibility



Flexible contracting schemes can be used to increase purchase volume or relocate/swap LNG cargoes

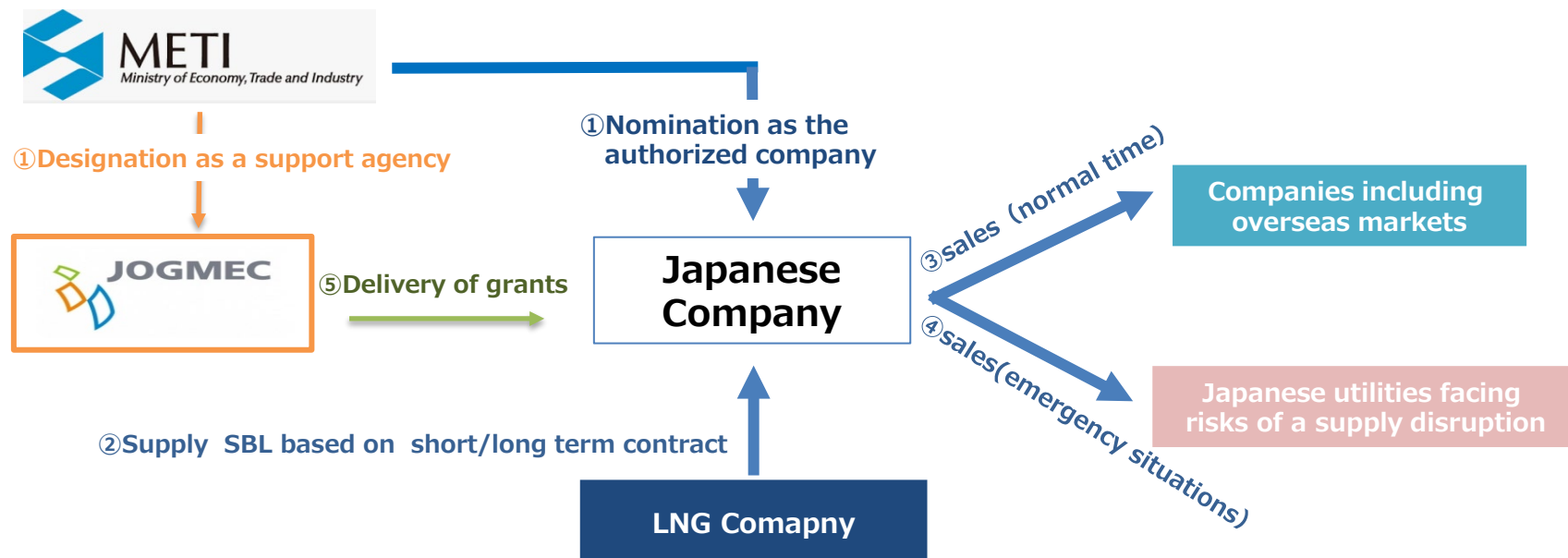
Technical challenges of gas or LNG storage can be bypassed

Public partnership and cooperation can enhance reliability of additional supply in times of need

② Policy measures: Strategic Buffer LNG (Japan's case)

- Under Japan's Economic Security Promotion Act, Japan launches a new LNG security framework, **Strategic Buffer LNG (SBL)**.

- ① METI **nominates a Japanese company as an authorized company handles SBL operation**. METI also designates JOGMEC (*Japanese quasi governmental organization) as a support agency.
- ② The nominated Japanese company **secures the SBL** by short/long term contracts.
- ③ During normal times, the company sells the SBL to utilities/companies including overseas markets.
- ④ **Under the emergency situation**, the company **sells the SBL to utilities** in Japan facing risks of a supply disruption.
- ⑤ JOGMEC **compensate for losses of the company**, if each sales result in a loss.



Thank you!