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JBIC's Support for Hydrogen Value Chain Creation

Energy Transformation Strategy Office

A large, stylized blue compass rose is positioned in the bottom left corner of the slide. It features a central circular hub with eight points, and concentric circles representing latitude and longitude. The letters 'nw' and 'E' are visible on the compass face.

October 2025

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JBIC at a Glance



Profile	
Name	Japan Bank for International Cooperation (JBIC)
Founded	April 1, 2012*
Governor	HAYASHI Nobumitsu
Capital	USD16.0 billion (as of June 20, 2025) (Wholly owned by Government of Japan)
Outstanding Facilities (Loans and Equity Participations)	USD105.2 billion**
Outstanding Facilities (Guarantees)	USD8.9 billion**
Operations	Export Loan, Import Loan, Overseas Investment Loan, Untied Loan, Equity Participation, Guarantee etc.

*Former JEXIM was founded on December 28, 1950

**As of March 31, 2025 (USD1=JPY149.52)

Our Missions	
	Development and Securement of Resources Maintaining and Improving the International Competitiveness of Japan
	Preserving the Global Environment Preventing Disruptions to International Financial Order

Management



Managing Director,
Chairman of the Board of Directors
MAEDA Tadashi

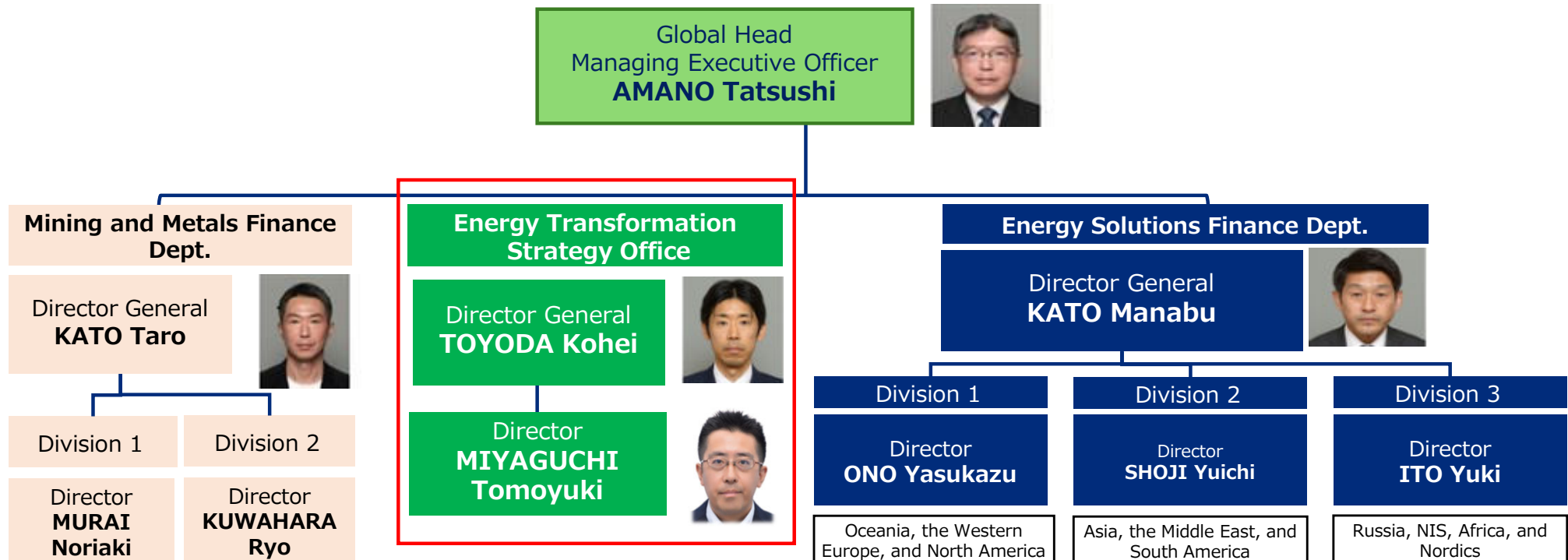


Governor
HAYASHI Nobumitsu

Overseas Network

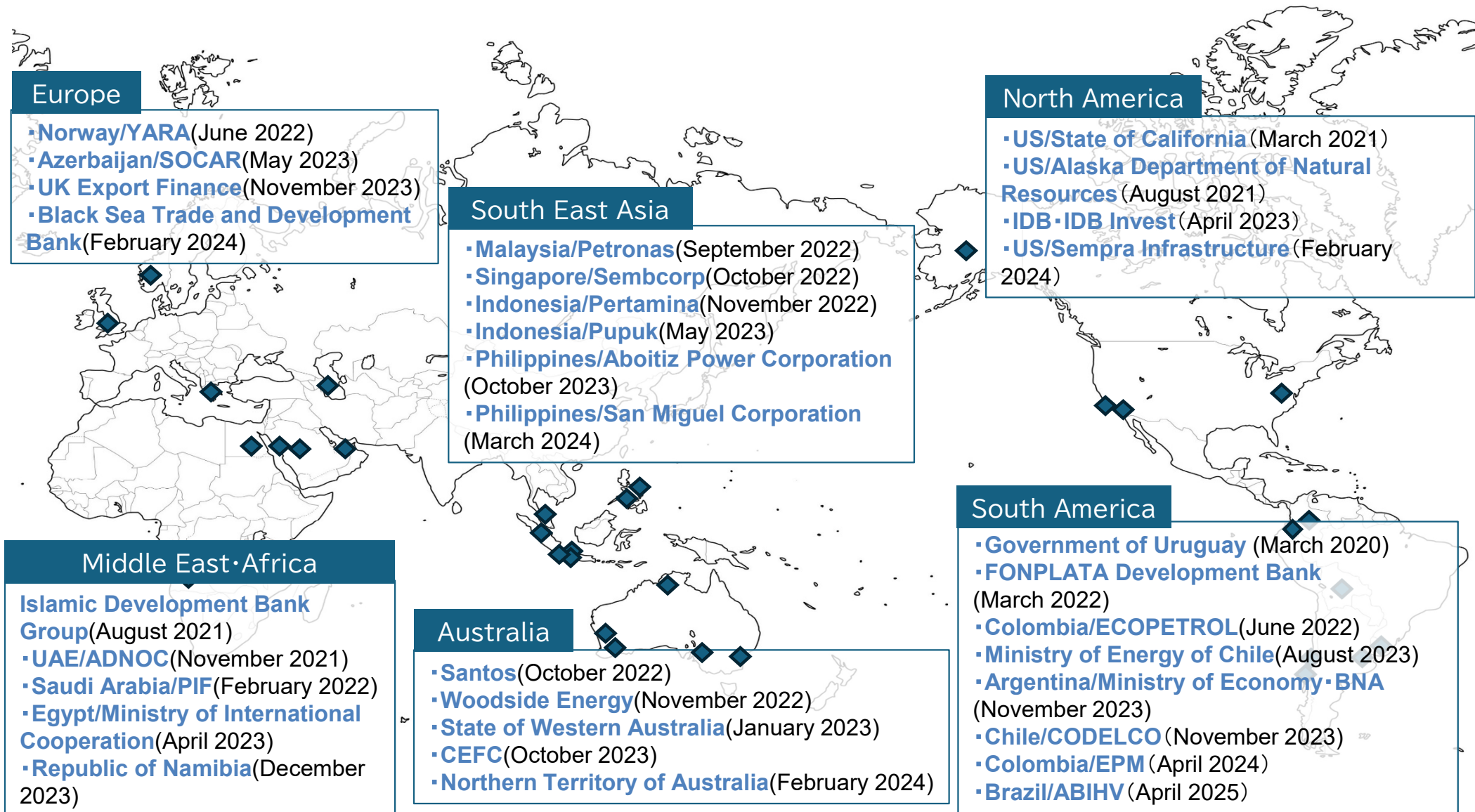


Organization Chart of Energy and Natural Resources Finance Group



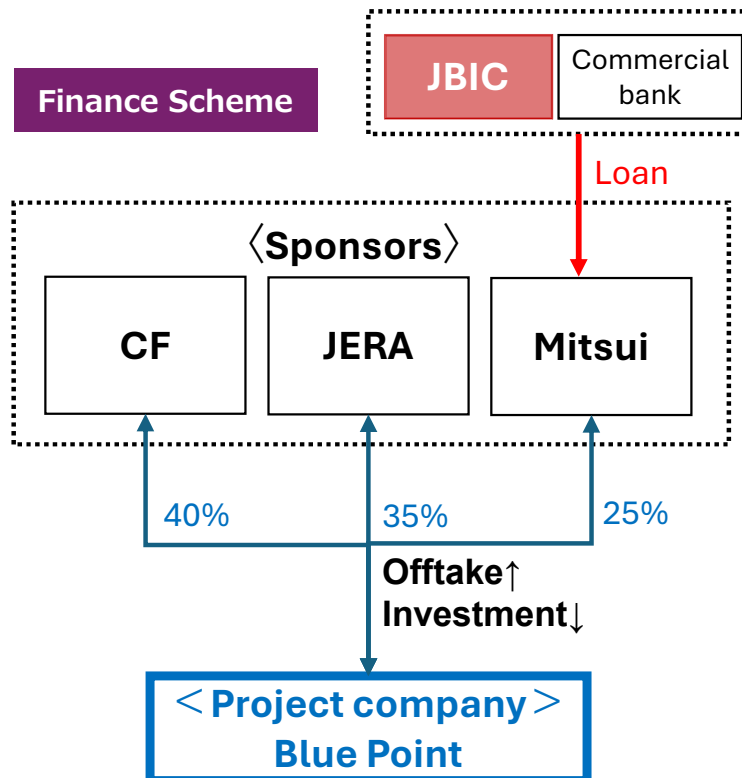
1. Projects related to global value chain creation of hydrogen, ammonia and other new energy source.
(e.g., production and import of hydrogen/ammonia)
2. Intelligence gathering, research, and information dispatch for the project above.

1. Development and securement of natural resources such as oil, natural gas, and biomass fuel, etc.
(e.g., production and import of LNG. CCS/CCUS.)
2. Infrastructure and transportation vessel related to the above.
(e.g., construction of receiving terminal and transportation vessel for LNG.)
3. Strategically important projects related to government and governmental. (e.g., untied loan to government and governmental related entities.)



4 Loan for Low Carbon Ammonia Project in Louisiana, the US JBIC

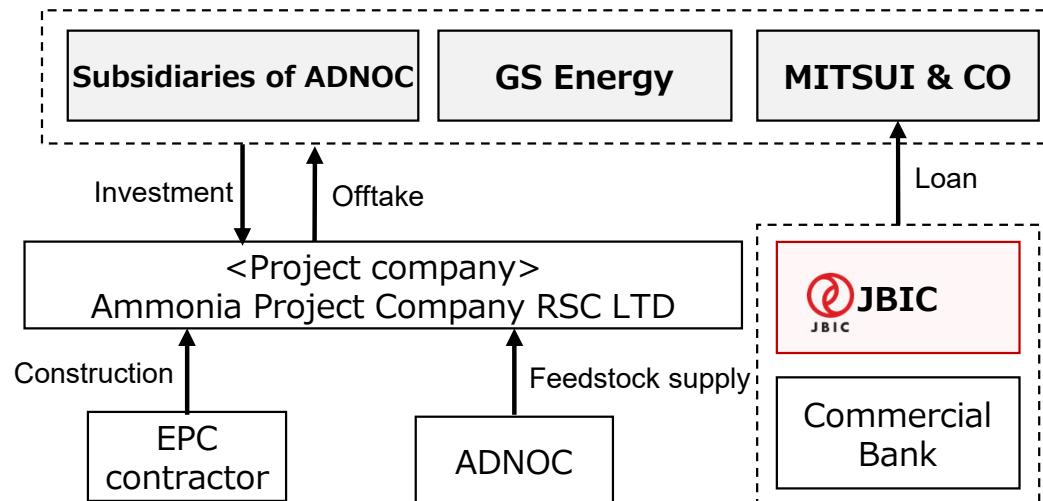
- ◆ The Project involves construction of **low-carbon ammonia facility with an annual production capacity of approximately 1.4 million tons** in Louisiana, the US. The project company “Blue Point” is jointly funded by **CF Industries, JERA, and Mitsui & Co.**
- ◆ Production is planned to begin in 2029. With CCS utilized, the project aims to **reduce CO2 emissions during the production process by greater than 95%.**
- ◆ Ammonia offtake will be handled by the three sponsors according to their ownership percentages. Mitsui plans to supply ammonia to customers in chemical and power sectors, contributing to the decarbonization of these industries.
- ◆ **JBIC signed a loan agreement** amounting to up to approximately **USD 626 million** with Mitsui in June 2025.



CF Industries existing ammonia and nitrogen facility

- ◆ This project will commence commercial operation of **one million tons of ammonia in 2027** at Ruwais Industrial Park in Abu Dhabi through the Ammonia Project Company RSC LTD sponsored by **MITSUI & CO, subsidiaries of ADNOC** and **Korea/GS Energy**.
- ◆ JBIC signed a loan agreement amounting to up to **USD12 million** with MITSUI & CO in June 2024.
- ◆ Until demand for ammonia as a fuel source is established, MITSUI & CO and other sponsors will utilize their existing ammonia sales networks to sell ammonia for fertilizer use in Japan, Europe, etc. The sponsors plan to **sell clean ammonia as a fuel source to Japan, Korea**, and other countries **when the demand for ammonia as a fuel source increases**.

Finance Scheme



Source: ADNOC

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Public initiatives (Government, JBIC)



✓ **Create demand** through policy measures (incentives and regulations) to **secure long-term off-take**



✓ **Ensure bankability** with appropriate risk allocation and mitigation measures, thereby **reducing financing costs** and **lowering the cost of hydrogen**



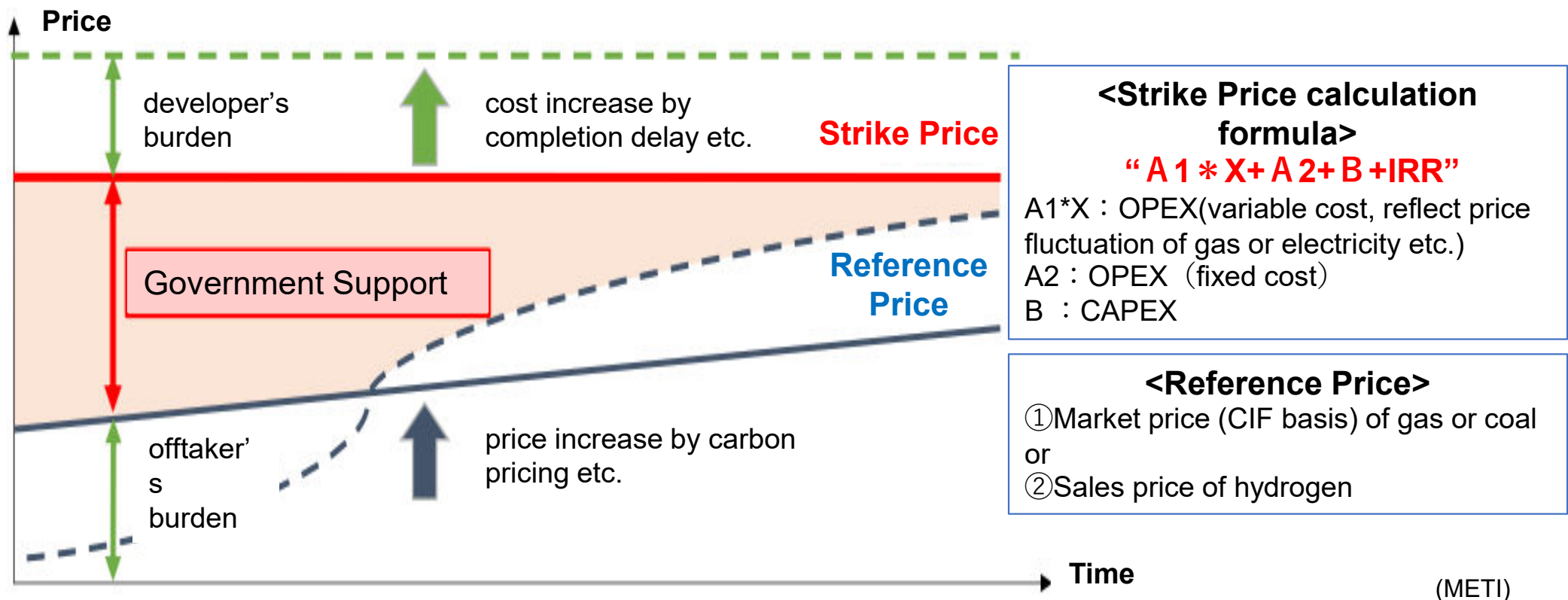
✓ By reducing the amount of support/subsidy per unit, **further demand can be generated** with the same government budget



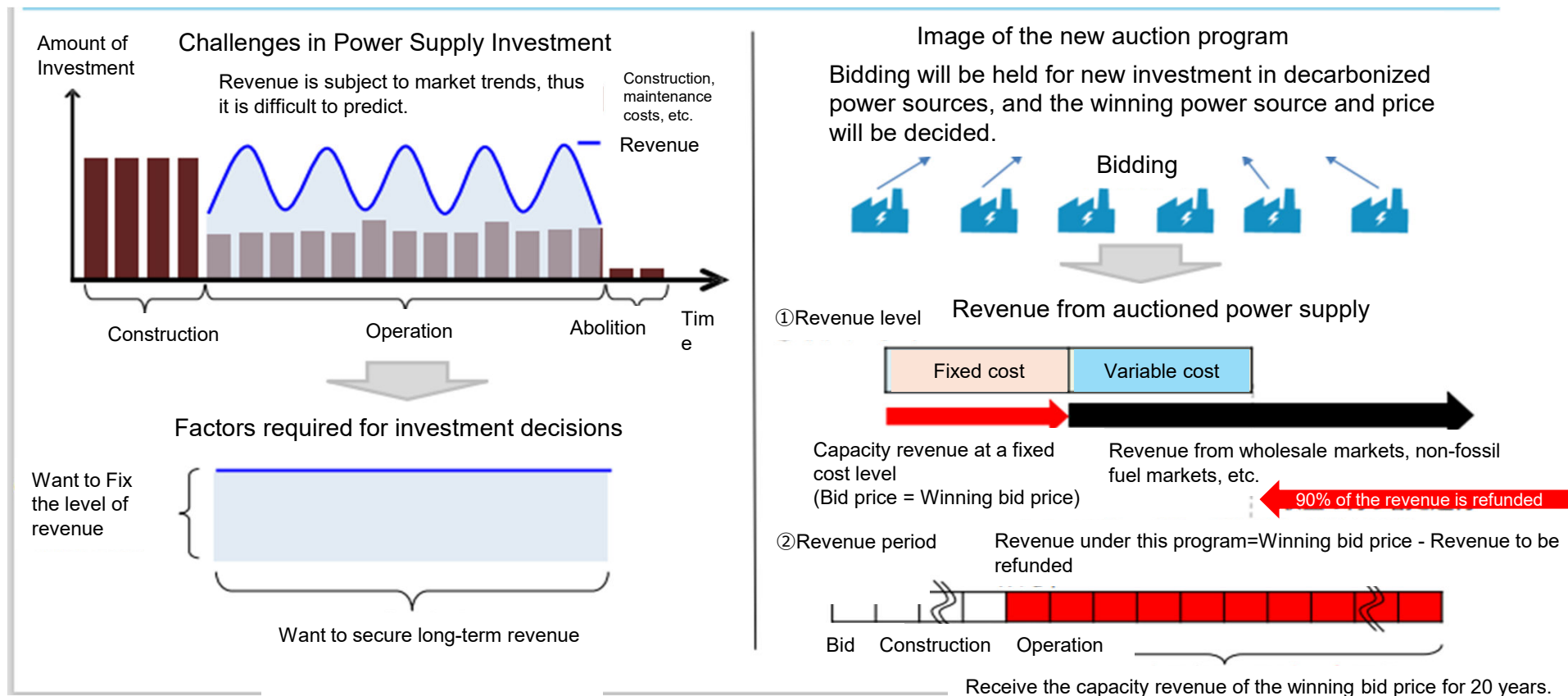
✓ Achieving **economies of scale** while further **reducing financing costs** through **accumulated track records**, enables **further cost reductions**

7 The support focusing on the price gap (CfD)

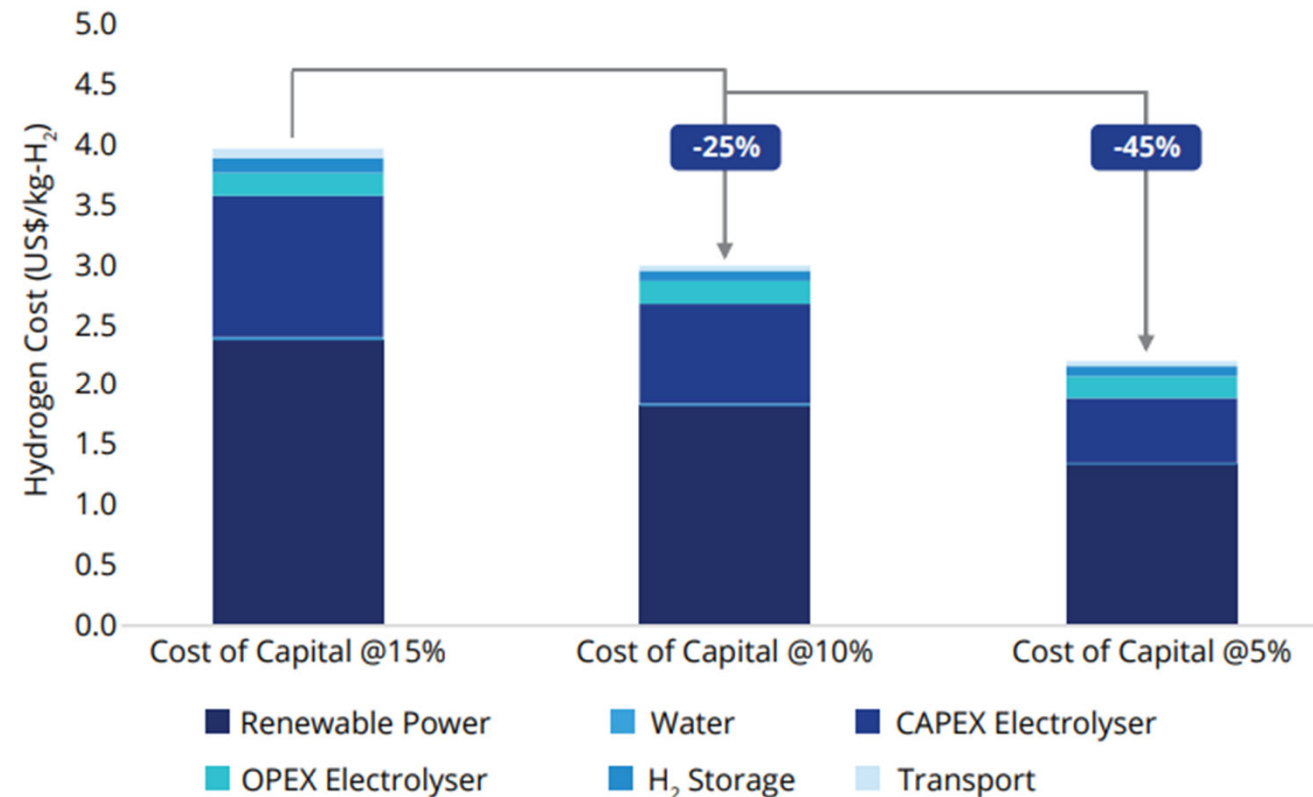
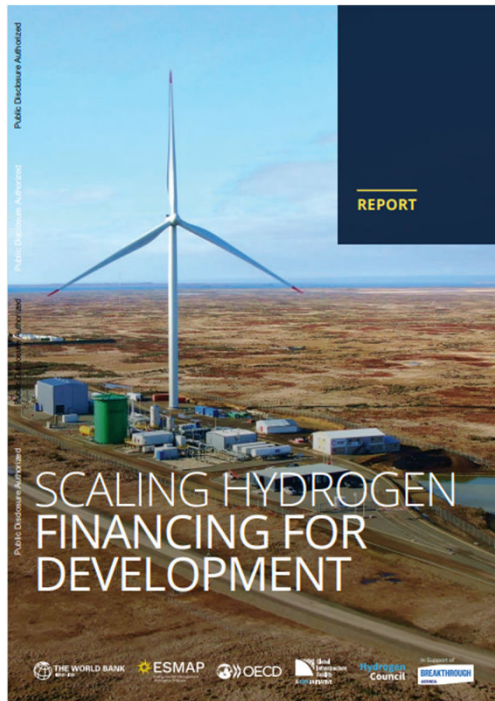
- Japanese government compensates the **price gap** between **hydrogen (including its derivatives) (Strike Price)** and **existing fuel (Reference Price)** for **15 years** (Total budget is **3 trillion yen** (≒\$21billion)).
- Projects are required to supply hydrogen by around 2030 and the hydrogen must be clean.
- **Application window was closed in March 2025.** The projects are being evaluated in terms of **cost competitiveness, energy policy(S+3E) and GX policy, and feasibility.**



- In order to promote new investment in decarbonization power sources, a bidding system targeting new investment in decarbonized power sources (called the “Long-term Decarbonized Power Source Auction” (LDPA)) was launched in FY2023 (the first bidding was held in January 2024).
- Bidding is conducted for a mixture of power sources, and the winning power sources are able to receive capacity revenue at a fixed cost for 20 years, which in principle, providing long-term predictability of revenue for the recovery of large initial investments.
- The scope of LDPA expanded to include the price difference between hydrogen and ammonia and existing fuels which would become second-moves support.



9 The Cost of Hydrogen Cost and the Cost of Capital

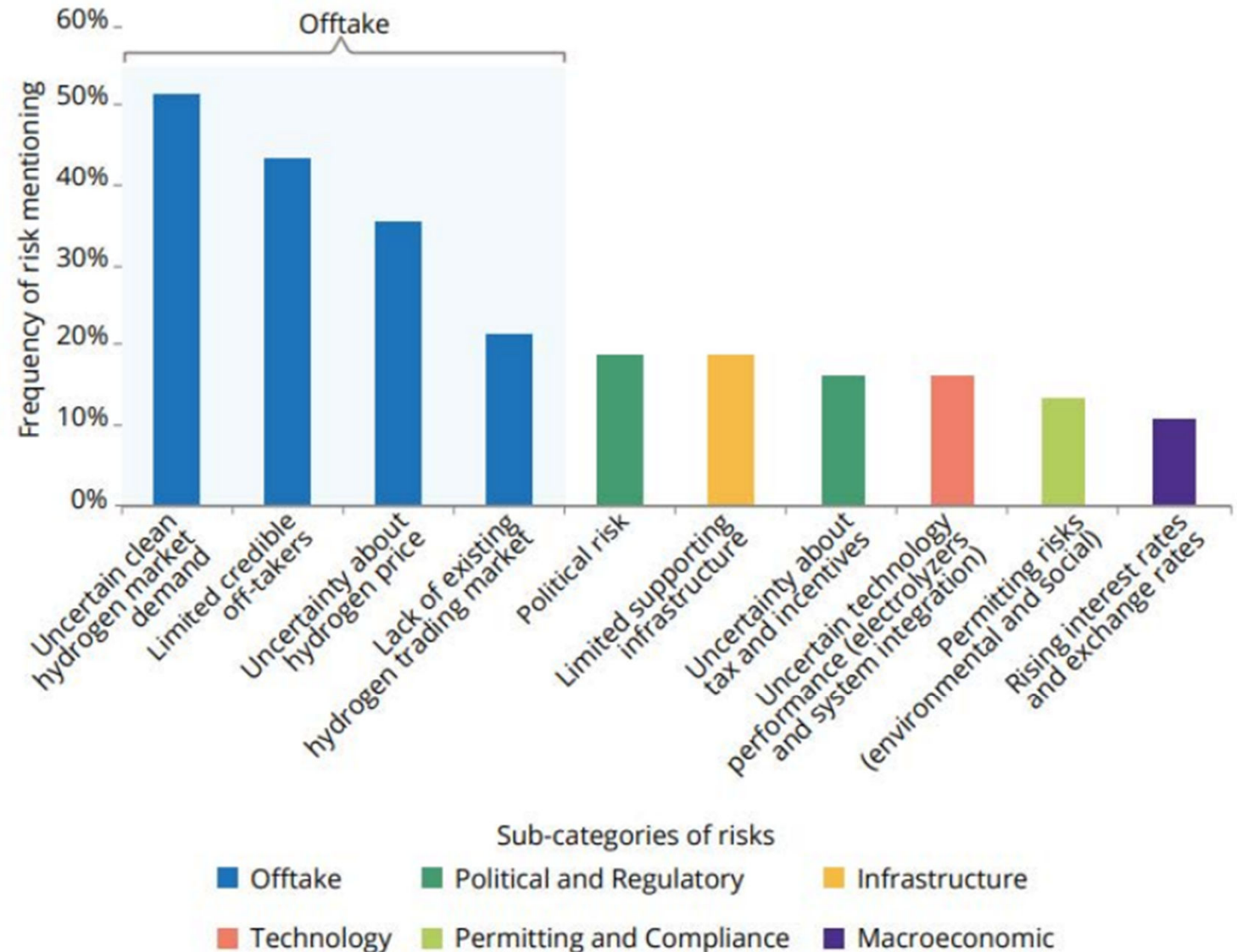


REGION/COUNTRY	DEBT	EQUITY	DEBT PREMIUM	EQUITY PREMIUM
Europe	4	12-14.5	-0.5 to 0	-4 to -6
United States	4-4.5	8	0	0
China	4.5-5	16.5-18.5	0.5 to 1	0.5 to 3

(SCALING HYDROGEN FINANCING FOR DEVELOPMENT World Bank et al.)

Green Finance and Investment

 Leveraging De-Risking Instruments and International Co-ordination to Catalyse Investment in Clean Hydrogen



- JBIC started the Special Operations in October 2016 to enable itself to **take further risks** for overseas infrastructure investment.
- Since April 2019, JBIC **has expanded the target of eligible projects** in line with Japanese Government's initiative to promote "quality infrastructure investment." JBIC shall support Japanese companies' overseas infrastructure projects in
 - ① **introducing advanced technology (technology risk-taking) or**
 - ② **project-formation of new business (project-formation risk-taking).**

Eligible projects (※) for the Special Operations

Public infrastructure projects which provide finance to **the government, governmental entities or local authorities**

Projects developed by private companies where the **off-taker would be the government, governmental entities or local authorities**

(※) Only eligible to overseas infrastructure projects with risks that JBIC is unable to assume under the Ordinary Operations.

Projects developed by private companies where **demand fluctuations** could impact the repayment of the finance

Projects developed by private companies where **uncertainty of the technology (technology risk) or uncertainty of the project-formation (project-formation risk)** could impact the repayment of the finance

New Expansion

(Reference) Example Projects under the Special Operations

June 2020, JBIC invested in First Element Fuel Inc. a startup with the largest market share of hydrogen stations operating in California.

June 2020, JBIC committed its investment to an Irish subsidiary of Exergy Power Systems, Inc., a startup manufacturing a high-output and fast-responding next-generation battery storage system



hydrogen stations in California.

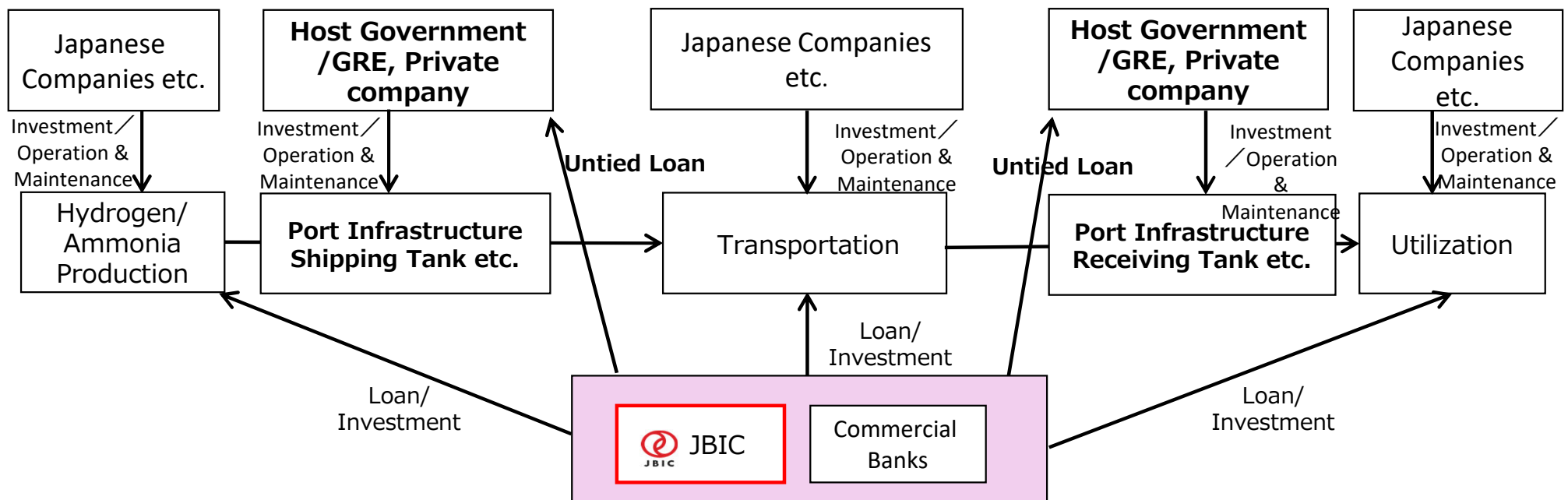


next-generation battery storage system

Financing for the hydrogen related Infrastructure Development

◆ Providing Untied Loan to host government/GRE or Private company in order to support critical infrastructure development (e.g. port infrastructure, shipping tank, receiving tank, etc.) to create Hydrogen/Ammonia value chain.

Structure Example



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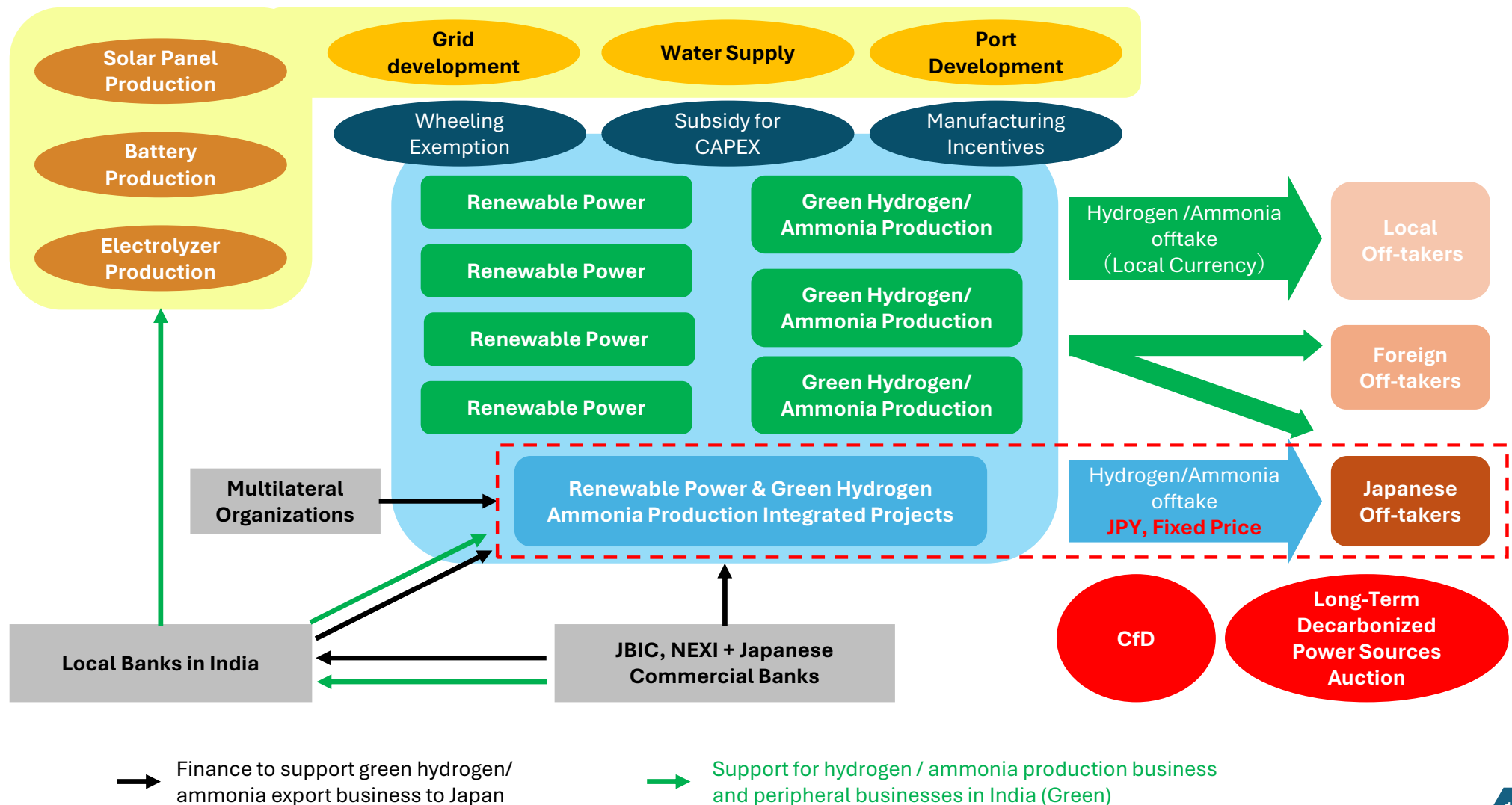
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Challenges



- Reduce hydrogen costs by providing yen-denominated loan with relatively low interest rates by leveraging yen-denominated long-term off-take through GOJ's support.
- Further reduce the cost of hydrogen by supporting domestic hydrogen projects in India, enabling technological innovation, economies of scale and learning curve effects.



- Technology risk with limited track record (i.e. large-scale electrolysis (including impact of fluctuations in renewable electricity generation))
- Cross-chain risk (Project on Project risk)
- Off-take contract
- Subsidy/support programs cancellation risk (Political risk)
- Others(?)

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