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Supporting Your Global Challenges

# **JBIC activities in the environmental field including possible support for JCM projects**

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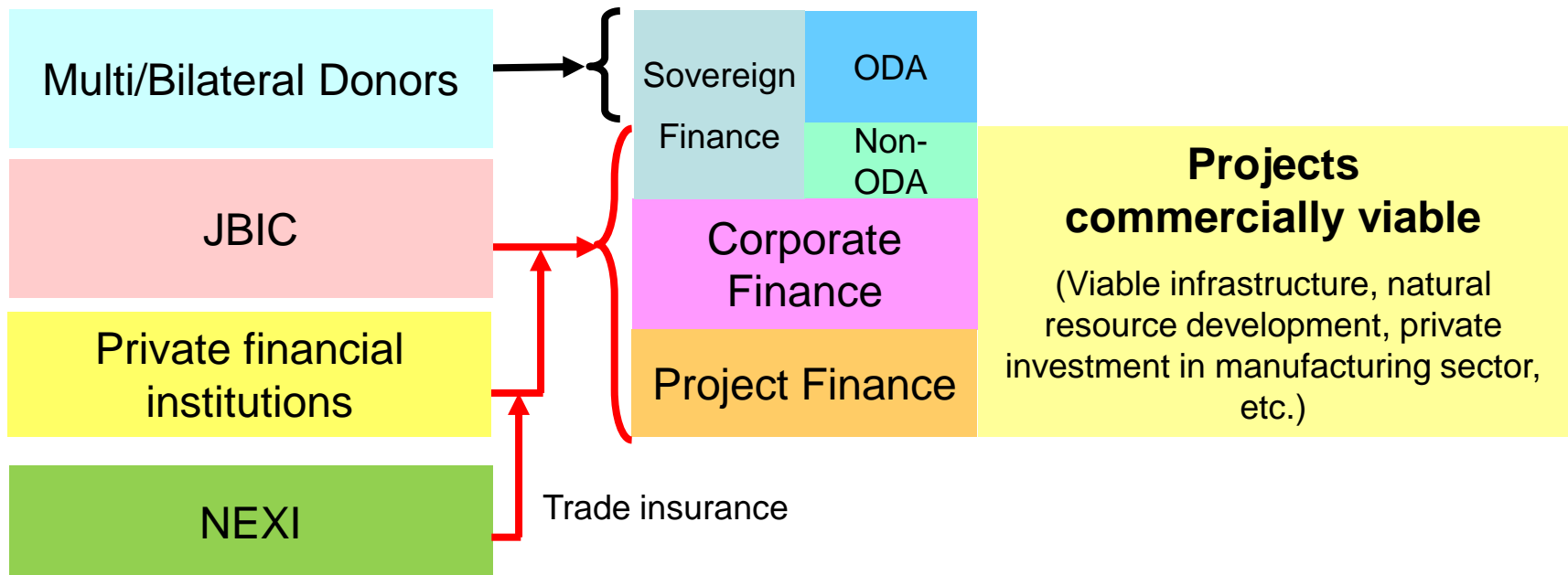
JAPAN BANK FOR INTERNATIONAL COOPERATION (JBIC)

# Outline of JBIC

<b>Name</b>	Japan Bank for International Cooperation (JBIC)
<b>Capital</b>	JPY 1,883.8bil (USD 17.7bil) (100% owned by Japanese Gov.) (as of Mar. 2020)
<b>Outstandings (Loans and Equity Participations)</b>	JPY 13,537bil (USD 127.5bil) (as of Mar. 2020)
<b>Outstanding (Guarantees)</b>	JPY 2,120.9bil (USD 20.0bil) (as of Mar. 2020)
<b>Domestic Offices</b>	Tokyo (Head Quarter) Osaka (Osaka Branch)
<b>Overseas Network</b>	◎ Singapore, Beijing, Bangkok, Hanoi, Jakarta, Manila, New Delhi ◎ London, Paris, Dubai, Moscow, Istanbul ◎ New York, Washington D.C., Buenos Aires, Mexico City, Rio de Janeiro
<b>Rating</b>	S&P: A+ , Moody's: A1、R&I: AA+, JCR: AAA (as of the end of July 2020)

# Role of JBIC finances

JBIC support commercially viable projects in collaboration with private financial institutions.



# JBIC's Mission

JBIC's mission is to contribute to the sound development of Japan and the international economy and society by conducting its operations in the following four fields:

Promoting the overseas development and securement of resources which are important for Japan



Maintaining and improving the international competitiveness of Japanese industries



Promoting the overseas business having the purpose of preserving the global environment, such as preventing global warming



Preventing disruptions to international financial order or taking appropriate measures with respect to damage caused by such disruption

# Example of Environment Projects to be supported by JBIC

Below list is major example of eligible projects. The list will be revised in accordance with Japanese government policy and/or technological development.

Energy Supply (Power generation & heat supply)	Renewable Energy	<ul style="list-style-type: none"> <li>Solar Energy</li> <li>Wind Energy</li> <li>Geothermal Energy</li> <li>Biomass Energy</li> <li>Hydro Energy</li> <li>Other renewables</li> <li>Essential facilities and/or equipment</li> </ul>
	Other Energy Supply	<ul style="list-style-type: none"> <li><u>High-efficiency coal-fired power generation</u></li> <li>Gas fired power generation</li> <li>Combined Heat and Power (Cogeneration)</li> <li>Energy-from-waste</li> <li>Fuel Cells</li> <li>Essential facilities and/or equipment</li> </ul>
Energy Use	Energy efficiency in industry	<ul style="list-style-type: none"> <li>Highly Efficient Equipment and Technology</li> <li>Waste Heat and Gas Recovery</li> </ul>
GREEN Innovation	Smart Energy	<ul style="list-style-type: none"> <li>Smart Grid</li> <li>Rechargeable Battery</li> </ul>
	Green Mobility	<ul style="list-style-type: none"> <li>Modal Shift (<u>including inter-city transportation</u>)</li> <li>Advanced Mobility (EV, electric propulsion ship)</li> </ul>
	Smart City	<ul style="list-style-type: none"> <li>Highly Efficient Community Utility</li> <li>Highly Efficient Office Building Utility(including ESCO)</li> <li>Energy-saving Appliance</li> </ul>
Other		<ul style="list-style-type: none"> <li>Methane Emission Reduction</li> <li>Chlorofluorocarbon Emission Reduction</li> <li><u>Prevention of Air Pollution (denitrification and desulphurization equipment)</u></li> <li><u>Water Supply &amp; Prevention of Water Pollution</u></li> <li><u>Waste Treatment (including recycling)</u></li> </ul>

Subcritical /  
Supercritical pressure  
is not eligible.  
Ultra-supercritical  
pressure is eligible in  
addition to CCS &  
IGCC.

Projects which  
don't reduce  
GHG emission  
are also eligible.

# JBIC's Financial Instruments

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## Export Loans

Export loans provide funds to support exports of machinery and equipment by Japanese companies and overseas transfer of their technologies.

## Import Loans

Import loans provide funds to support imports of natural resources or other materials strategically important to Japan. Apart from resources, JBIC provides a guarantee facility for the import of goods and services essential to the sound development of the Japanese economy, such as aircraft.

## Overseas Investment Loans

Overseas investment loans provide funds to support overseas operations implemented by Japanese companies such as manufacturing and sales or infrastructure projects, as well as to support M&A deals with foreign companies, the acquisition of natural resource interests and natural resource development projects.

## Untied Loans

Untied loans provide funds to support improvements in the overseas business environment to facilitate Japanese trade, investments and other overseas business activities. Untied loans also support projects undertaken by foreign governments and government agencies.

## Equity Participations

Equity participations are investments in overseas projects or funds involving Japanese companies.

## Guarantees

Guarantees are provided by JBIC to supplement and encourage financing from private financial institutions.

## Bridge Loans and Others

Bridge loans provide short-term financing for developing country governments facing balance-of-payments difficulties to enable them to ride out temporary strains in foreign currency management.

## Research and Studies

JBIC conducts research and studies to support its financial operations.

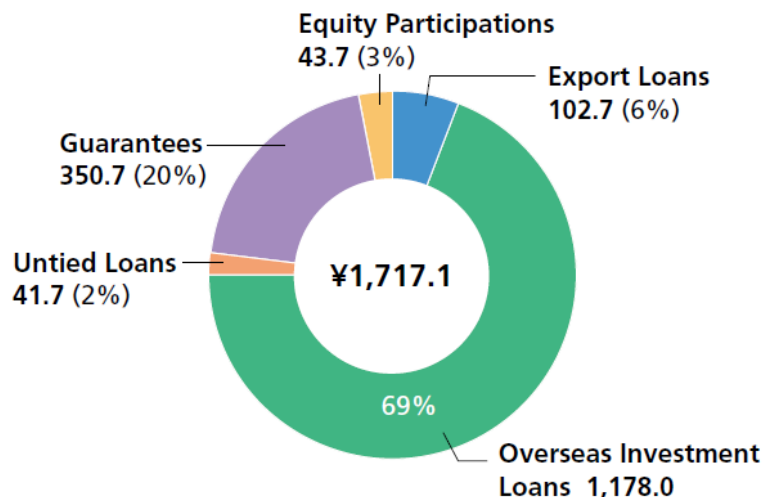
## Securitization, etc.

JBIC provides support for the securitization of loan claims of private financial institutions and receivables of private companies.

# JBIC's Financing Portfolio in FY2018

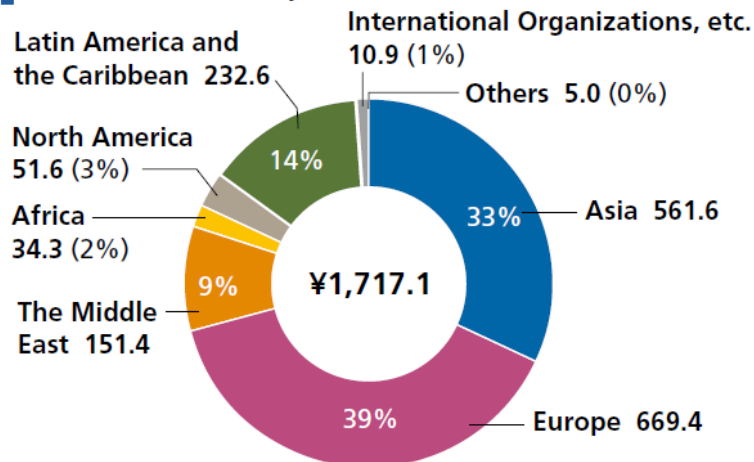
## Commitments by Purpose of Financing

(FY2018; unit: billions of yen)



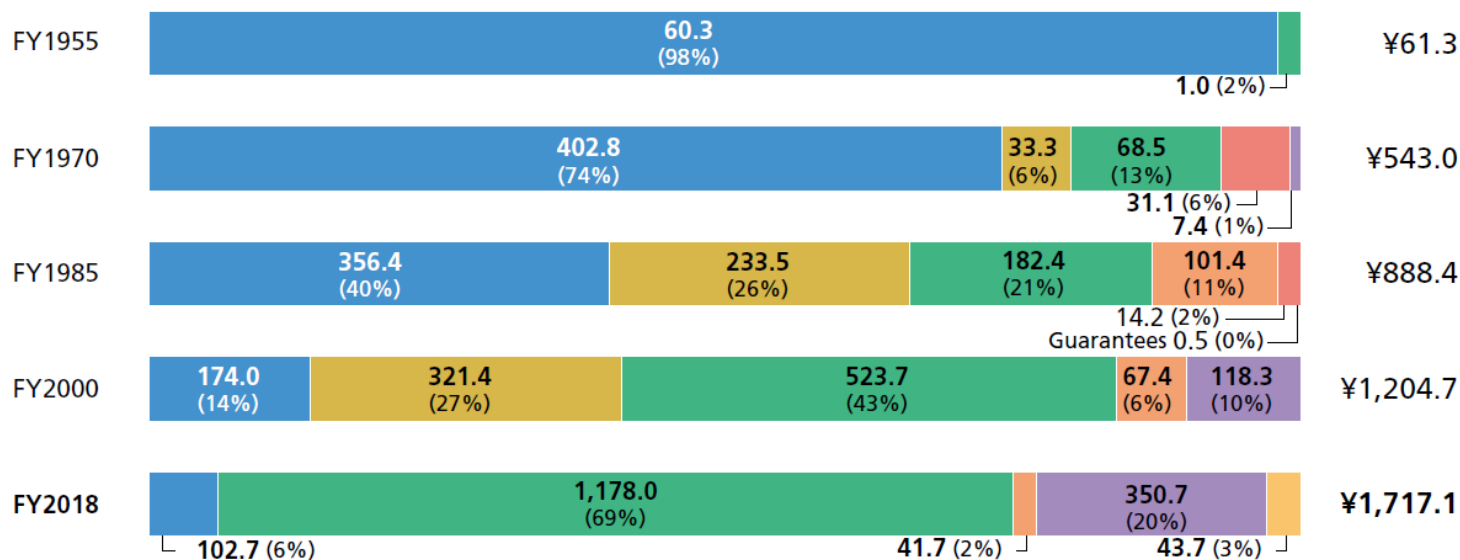
## Commitments by Region

(FY2018; unit: billions of yen)



## Changing Composition of Loans, Equity Participations, and Guarantees (Commitments)

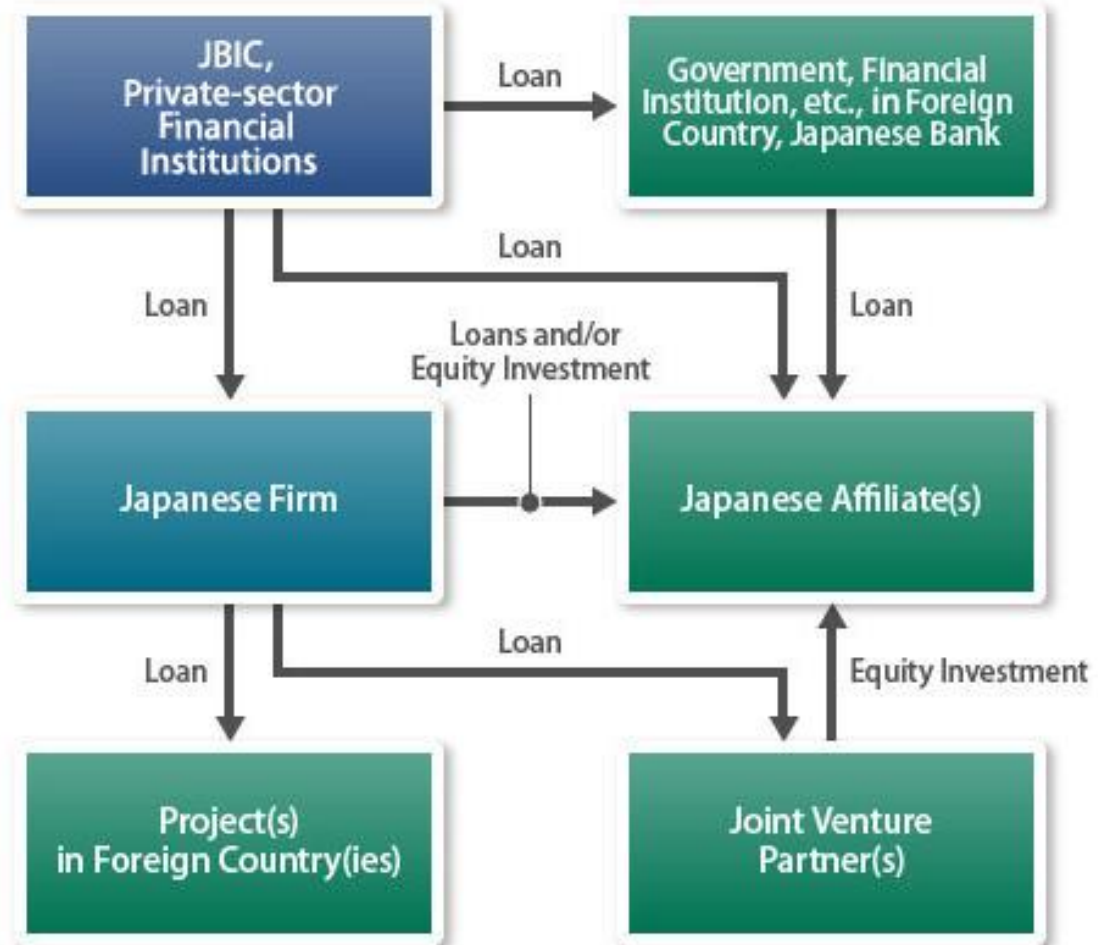
(Unit: billions of yen)



Export Loans Import Loans Overseas Investment Loans Untied Loans Governmental Loans Guarantees Equity Participations

# How to support Environment Projects including JCM Projects

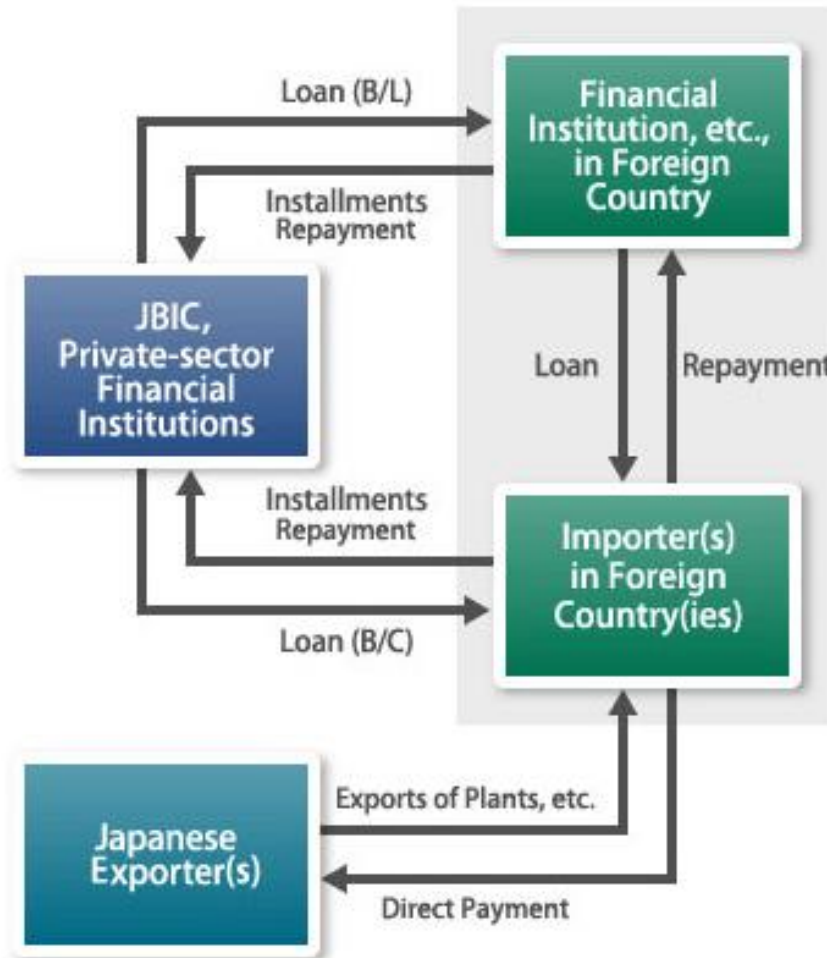
## Overseas Investment Loans



Overseas investment loans support Japanese foreign direct investments. The loans can be provided to Japanese companies (investors), overseas Japanese affiliates (including joint ventures) and foreign governments or financial institutions that have equity participations in or provide loans to such overseas affiliates. JBIC provides loans in co-financing with other financial institutions (usually the loan applicant's bank(s)) to meet the client's financial needs.

# How to support Environment Projects including JCM Projects

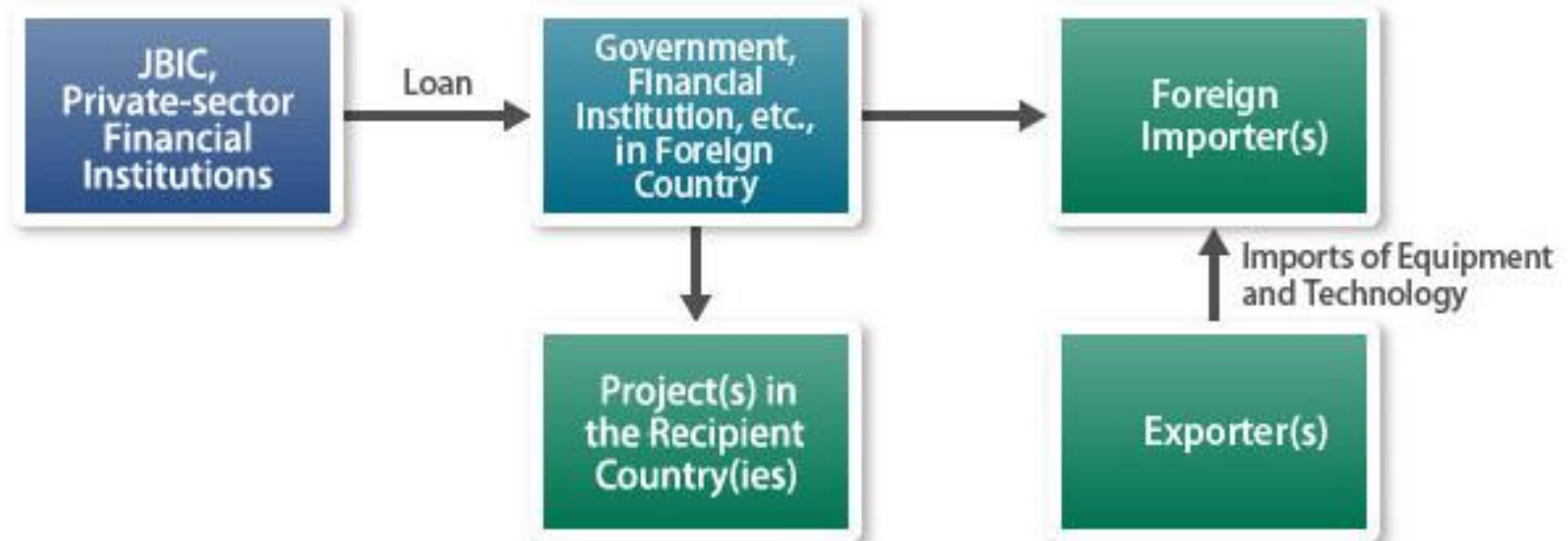
## Export Loans



Export loans are provided to overseas importers and financial institutions to support finance exports of Japanese machinery, equipment, and technology mainly to developing countries. JBIC provides loans in co-financing with other financial institutions (usually the loan applicant's bank(s)) to meet the client's financial needs. The loan amount and other basic terms are usually determined based on the OECD Arrangement on Officially Supported Export Credit.

# How to support Environment Projects including JCM Projects

## Untied Loans (GREEN)



Untied loans are intended to finance projects and the import of goods by developing countries, etc. Loans are not conditional on investments or procurement of equipment and materials from Japan.

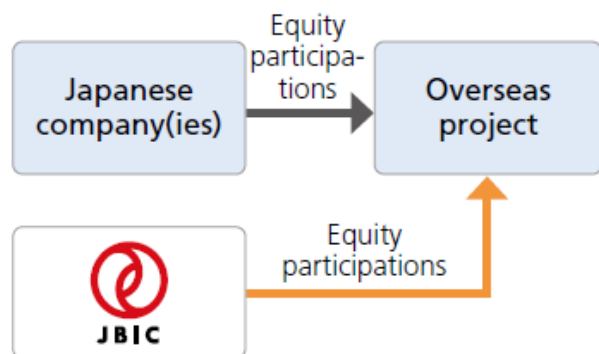
JBIC provides loans in co-financing with other financial institutions.

# How to support Environment Projects including JCM Projects

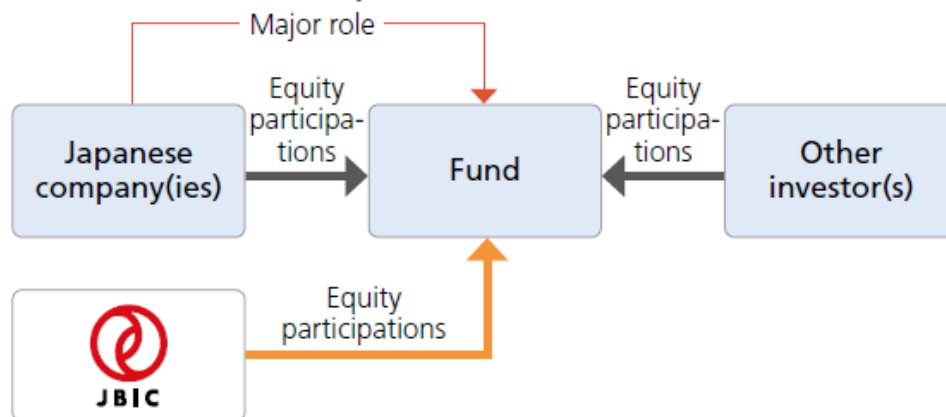
## Equity Participations

Equity participations are capital contributions to companies where Japanese companies have equity stakes to undertake overseas projects, as well as funds where Japanese companies perform significant roles.

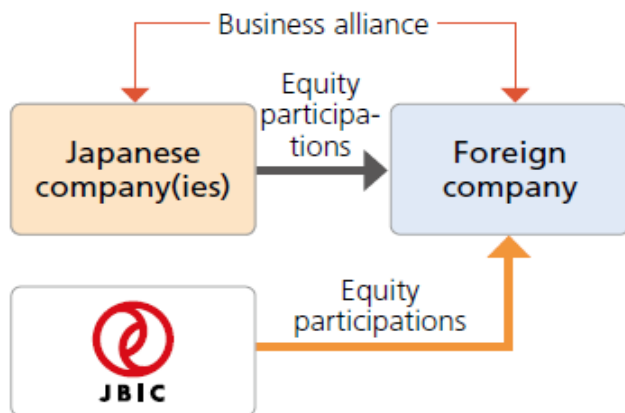
- Japanese companies make equity participations in an overseas project



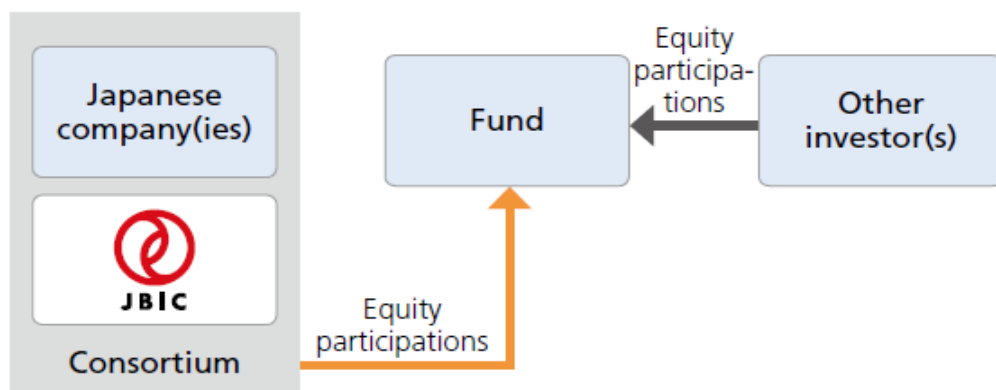
- Japanese companies participate in a fund (and perform such a major role as general partner in their management and investment decisions)



- Japanese companies acquire equity interests in a foreign company to form business alliance



- Japanese companies form a consortium and participate in an international fund



# (CASE1, 2) JCM related Projects (Solar Power & Cold Chain)

## Supporting Japanese Companies' Solar Power Generation Business in Mongolia

JBIC concluded a loan agreement with Farmdo Corporation's Mongolian subsidiary, Everyday Farms LLC (EDF). The loan will provide funding needed for the solar power generation business operated by EDF in Ulaanbaatar, Mongolia. EDF will sell the power to Mongolia's national power transmission and distribution company over the next 20 years.

Farmdo is an SME that sells agricultural materials and products and various kinds of food, and operates an electricity sales business by solar power generation. In recent years, Farmdo has been focusing on the solar farm business that conducts solar power generation and produces vegetables simultaneously. Farmdo seeks to expand its solar farm business through EDF in Mongolia where demand for clean energy and fresh agricultural products is expected to grow. The Japanese government is facilitating the diffusion of leading low-carbon technologies through the Joint Crediting Mechanism (JCM) in "Actions for Cool Earth: ACE 2.0." This project has been adopted as a JCM Model Project by the Ministry of the Environment, Japan and this loan will be the first time JBIC has supported JCM projects.



## RYOBI HOLDINGS Co., Ltd.

### Distribution Warehouse Business



RYOBI HOLDINGS has expanded its business in a wide range of sectors including logistics and tourism. In May 2016, it established the subsidiary Ryobi Myanmar Distribution Service Company Limited in Myanmar, where Japanese supermarkets are opening new stores. RYOBI HOLDINGS seeks to gain market share in the multi-temperature (refrigerated, frozen, constant temperature and room temperature) warehouse business by providing high-quality cold chain services which are indispensable for the distribution and sale of fresh food products. JBIC provided RYOBI HOLDINGS with the funds necessary for the multi-temperature controlled distribution warehouse operated by its subsidiary.

# (Case 3, 4) Waste Treatment, etc.

## Supporting a Waste Treatment Project in Sweden

JBIC concluded a loan agreement of Swedish krona with HZI Jönköping Biogas AB (HZI Jönköping Biogas), a Swedish subsidiary of Hitachi Zosen Corporation Group (Hitachi Zosen Group). This loan is intended to provide the necessary funds for HZI Jönköping Biogas to build a waste treatment plant using methane fermentation technology located in the city of Jönköping, Sweden, and to treat waste and sell biogas for 20 years.

Hitachi Zosen Group is a leading group which boasts a world-class track record in waste treatment and power generation plants. This project is the first business investment for Hitachi Zosen Group in the waste treatment field in Sweden. It is thus positioned as an important milestone in further developing the group's overseas business. In addition, the biogas sold by HZI Jönköping Biogas is scheduled to be used as fuel for public transport in the city of Jönköping. This loan will also contribute to the preservation of the global environment.



## Supporting Waste Treatment and Power Generation Project in the U.S.

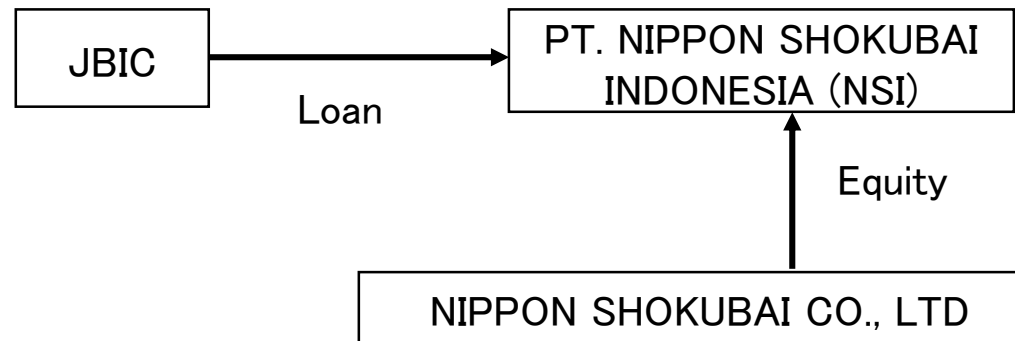
JBIC signed a loan agreement with Kompogas SLO LLC (Kompogas SLO), a U.S. subsidiary of Hitachi Zosen Corporation (Hitachi Zosen) Group. This loan is intended to finance the necessary funds for Kompogas SLO to construct a waste treatment and power generation plant in California in the U.S., and to conduct waste treatment, biogas power generation, and sales of compost<sup>1</sup> over a period of 20 years. This is the first loan for JBIC to provide to a waste treatment business.

Hitachi Zosen is a leading company which boasts a world-class track record in the number of EPC (engineering, procurement, and construction) orders for waste treatment and power generation plants. This project is an overseas infrastructure business in which Hitachi Zosen Group invests in the field of waste treatment and power generation for the first time in the U.S., and is involved in long-term operation and management of the plant using its advanced technologies. It is thus positioned as an important milestone in further developing the company's overseas business. This loan will support such overseas business expansion of Hitachi Zosen Group, and at the same time contribute to maintaining and strengthening the international competitiveness of Japanese industries.



## (Case 5) Upgrading of existing equipment, etc.

Total Co-financing Amount	USD 200 mil
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(\*)The loan is co-financed with private financial institutions.



This loan is intended to finance the increase of production capacity and the optimization of existing equipment for NSI's acrylic acid manufacturing and sales business in Indonesia. Acrylic acid is used as a key material of superabsorbent polymer (SAP), which is primarily used in disposable diapers and sanitary products, as well as acrylate (AES), which is used in adhesive, paint and others.

**This investment will optimize energy use within the plant through upgrades to existing equipment in addition to making use of the waste heat from the acrylic acid manufacturing process.**

# (Case 6, 7) Water related Business



## Qatar

### Project Finance for Facility D Natural Gas-fired Power Generation and Desalination Project

#### Supporting Japanese companies' participation in overseas IWPP project

JBIC concluded a project finance loan agreement with Umm Al Houl Power (UHP) of Qatar for the Facility D IWPP<sup>4</sup> project. UHP was established by Mitsubishi Corporation (MC) and Tokyo Electric Power Company, Incorporated (TEPCO) together with Qatar Petroleum, Qatar Electricity & Water Company Q.S.C., and the Qatar Foundation for Education, Science and Community Development. This project involves the construction, ownership, and operation of a natural gas-fired combined cycle power plant (capacity: approximately 2,400 MW) and a desalination plant (capacity: approximately 590 thousand cubic meters per day) under the BOOT<sup>5</sup> in Qatar, where demand for electric power and water has been increasing due to rapid population growth and economic development. The electricity and water generated by the project will be sold to Qatar General Electricity and Water Corporation for 25 years after the completion of the plants.



## Malaysia

### Okumura Engineering Corporation

#### Valves Manufacturing and Sales Business

Okumura Engineering is a century-year old company founded in 1902 that is primarily engaged in the manufacture and sale of valves. In light of the expected growth in demand for valves on the back of increasing demand for the water business and infrastructure development in Southeast Asia, Okumura Engineering established OKM VALVE (M) SDN. BHD (OKM Malaysia), a Malaysian subsidiary, with the aim of expanding its business. JBIC provided the funds

necessary for the expansion of the production facilities of the valve manufacturing and sales business operated by OKM Malaysia in the State of Selangor, Malaysia.



# (Case 8, 9) Energy Management and Prevention of Air Pollution

## Loan for Development and Operation of Multifunctional Real Estate Complex Project

Supporting overseas business deployment of Japanese companies

JBIC concluded a loan agreement with Yangon Museum Development Pte. Ltd. (YMD), a company established in Singapore by Tokyo Tatemono Co., Ltd., Fujita Corporation, and the Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN). This loan is intended to finance the company's development and operation of multifunctional real estate complex to be built in Yangon, Myanmar, consisting of a hotel, serviced apartments, offices, and commercial facilities.

Through this project, Tokyo Tatemono and Fujita will provide services such as Japanese quality office and living spaces for customers, including Japanese companies expanding to Myanmar. The companies plan to gain their know-how in the overseas real estate business in addition to increasing their earnings. This project will install the building energy management system (BEMS) as in the latest style buildings in Japan. This project will thus contribute to global environment preservation through the efficient use of energy throughout buildings.



## Supporting Manufacturing and Sales Ceramic Products for Purifying Automobile Exhaust in Thailand

In recent years, economic growth and population increases have driven rising automobile demand in Asian countries, particularly in China and the ASEAN region. In response to this growth, emission regulations have been tightened. Under such circumstances, an increase in demand is expected for the ceramics that purify harmful automobile emissions such as hydrocarbon (HC), carbon monoxide (CO), and nitrogen oxide (NOx).

NGK CERAMICS (THAILAND) CO., LTD. (ACTH), a Thai subsidiary of NGK INSULATORS, LTD., aims to expand its business in Asia by increasing its manufacturing capabilities for automobile exhaust purifying ceramics for large commercial vehicles. The new manufacturing facilities are to be built in Samut Prakarn Province, Thailand.

JBIC concluded a loan agreement with ACTH to support the expansion of their manufacturing capabilities. This loan is also provided under JBIC's "Global Facility to Promote Quality Infrastructure Investment for Environmental Preservation and Sustainable Growth" (QI-ESG).

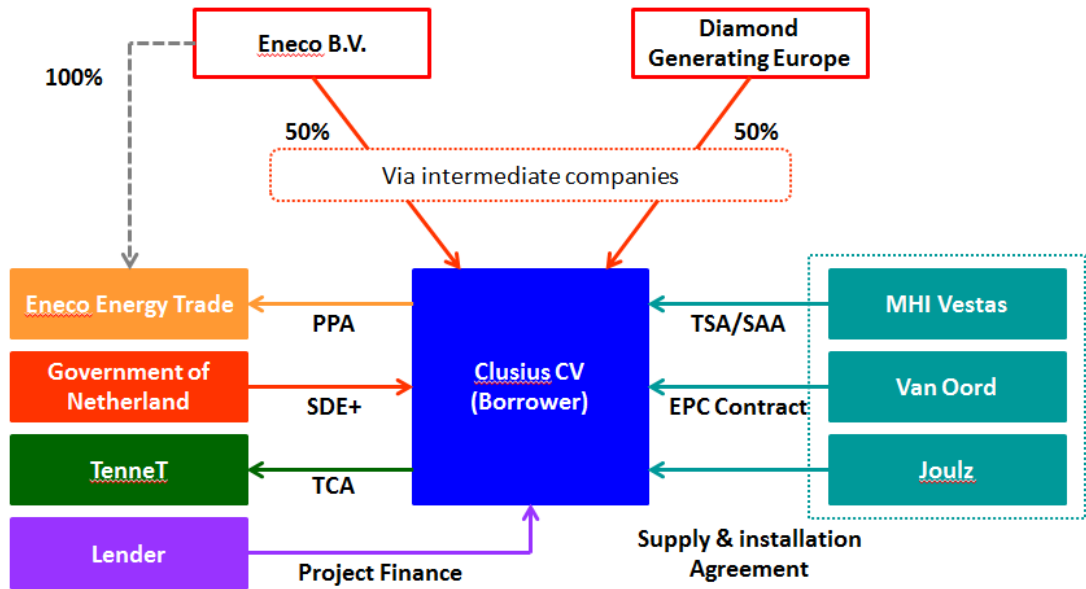


# (Case 10) Offshore Wind Power Generation

Luchterduinen (Q10), the Netherlands	
Total Co-financing Amount	EUR 443 million



< Simplified Structure >



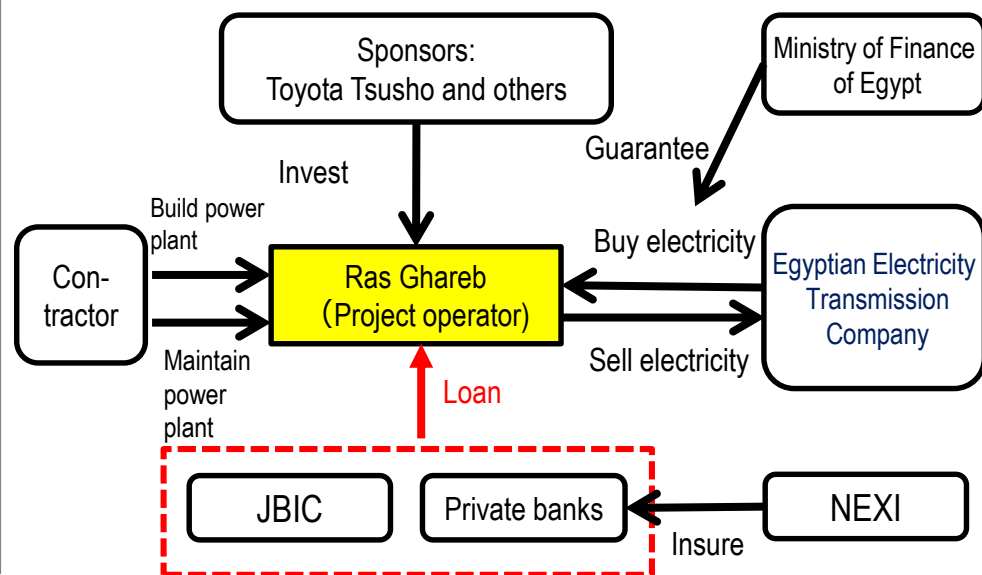
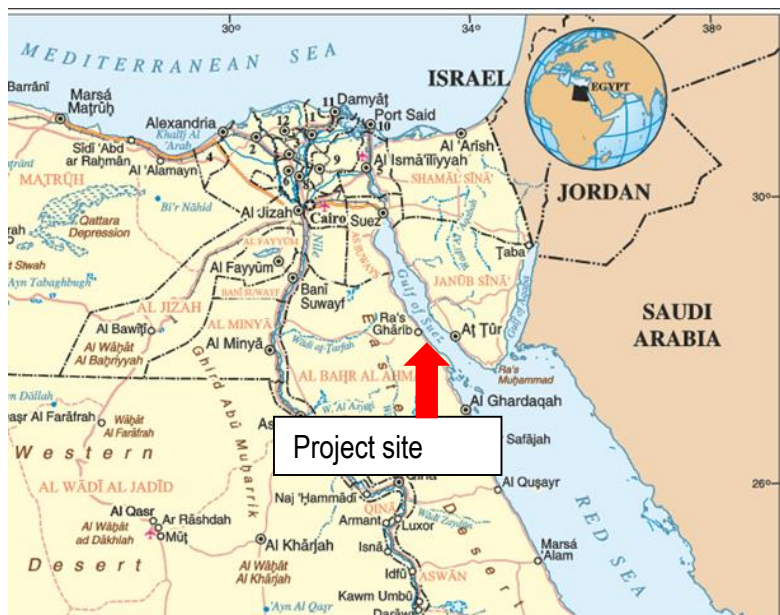
Wind power holds its strength in zero emission of CO2 when it produces electricity. Offshore wind farm is one of the solution to get stable and large power production. It's energy output is 40% higher than that of onshore wind farm. **MHI Vestas** supplied 43 turbine (3MW each) to the project and they will provide operation and maintenance service.

# (Case 11) Onshore Wind Power Generation

## Onshore Wind Power Project, Egypt

Total Co-financing Amount	USD 320 mil
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- ✓ Joint project by Toyota Tsusho Corporation, Eurus Energy Holdings Corporation (a joint venture of Toyota Tsusho and Tokyo Electric Power Co., Ltd.) , a French power generation company and an Egyptian constructor
- ✓ Purpose of the project: To construct, own and operate an onshore wind power plant with a total capacity of 262.5 MW on the shore of the Suez Canal, and sell the generated electricity to Egyptian Electricity Transmission Company for 20 years.



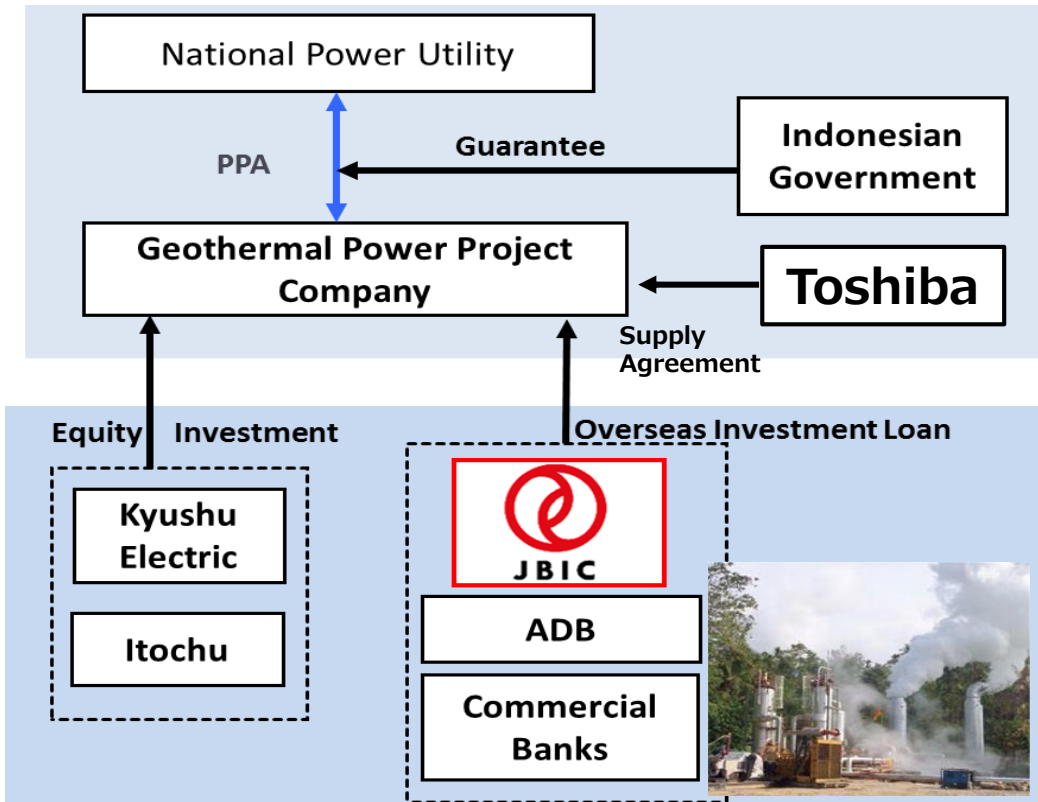
### Overview of the project

- ① This is the first project finance loan that JBIC has ever provided for a wind power project in Africa.
- ② This is also the first project finance loan that JBIC has provided for a project in Egypt since the Arab Spring.
- ③ This project is in line with the objectives of Japanese government's policies, including those for infrastructure exports, climate change and assistance to African countries.

# (Case 12) Geothermal Power Generation

## Sarulla Indonesia

Total Co-financing Amount	USD 1,170million
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Since most of the power generation operates underground, geothermal power generation hardly emits CO<sub>2</sub>. This power plant, using **Toshiba's** steam turbines and generators, is one of the world's largest geothermal power plant and is significantly effective as a measure against global warming for it is expected to reduce 1.8 million tons of CO<sub>2</sub> emissions a year when completed.

# (Case 13) Rolling Stock Project

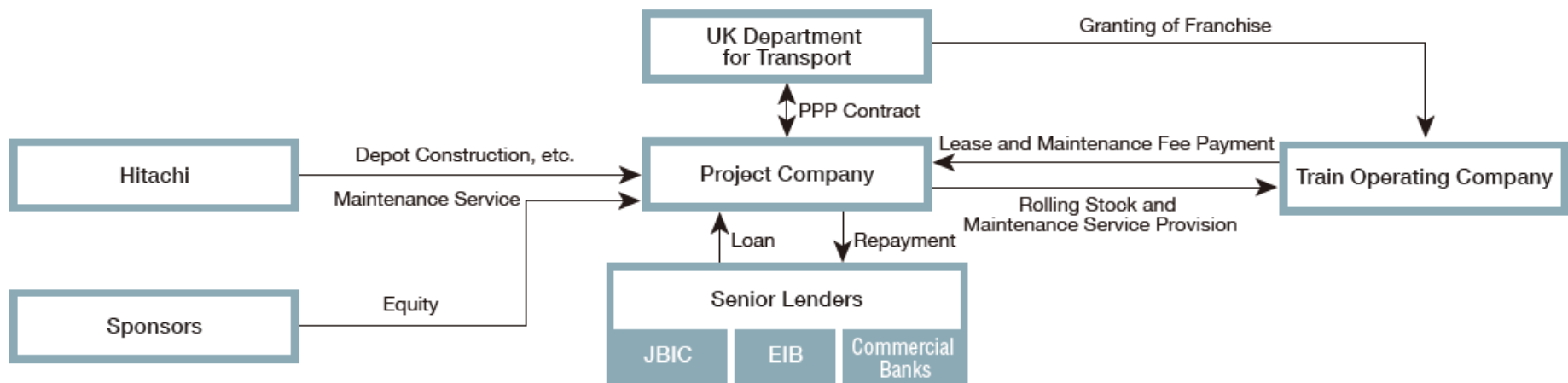
## Intercity Express Programme in the U.K.

Total Co-financing  
Amount

GBP 2,200 million



Construct and refurbish railway depots; lease trains to a franchised train operating company of the Great Western Main Line network; and maintain trains at the depots constructed or refurbished for a period of around 30 years. This is the one of the most significant projects for the UK Government and the first PPP project of heavy-rail rolling stock in the UK.



# <APPENDIX> Summary of Growth Investment Facility

In line with the “Comprehensive Economic Measures to Create a Future with Security and Growth” approved by the Cabinet in December 2019, JBIC has created a new facility under its Ordinary Operations Account by revising existing facility (QI-ESG).

(1) Name of Facility: Growth Investment Facility

(2) Purpose: To launch a new facility for growth investment comprising the following two facility windows, in support of Japanese companies’ business expansion, including overseas M&A and global value chain restructuring, as well as development of quality infrastructure.

• **Facility Window for the development of quality infrastructure for Environmental Preservation and Sustainable Growth**  
**(“QI-ESG Window”)**



**Continue existing facility (QI-ESG)**

• **Facility Window for Supporting Japanese companies’ overseas business expansion**  
**(“Overseas Business Expansion Window”)**



**Newly established**

(3) Available currencies: U.S. dollar, Euro, Yen (other currencies to be decided separately)

(4) Conditions on interest: Interest rates designed for Growth Investment Facility apply to loans

(5) Financing amount available from JBIC: Loan amount is decided in the same way as other usual projects

(6) Deadline for signing a financing agreement: June 30, 2021

## <APPENDIX> Summary of COVID-19 Emergency Window

In line with the “Emergency Economic Measures for COVID-19” approved by the Cabinet in April 2020, JBIC has expanded the existing Growth Investment Facility (created in January 2020) (\*) and created a new facility window.

(\*) Composed of QI-ESG Window (Facility Window for the development of quality infrastructure for Environmental preservation and Sustainable Growth) and Overseas Business Expansion Window (Facility Window for Supporting Japanese companies’ overseas business expansion).

- ( 1 ) Name of Facility: Emergency Window for Overcoming the COVID-19 Crisis  
("COVID-19 Emergency Window")
- ( 2 ) Purpose : To support the overseas business activities of Japanese companies  
under the impact of COVID-19.
- ( 3 ) Available currencies: U.S. dollar, Euro, Yen (other currencies to be decided separately)
- ( 4 ) Conditions on interest: Interest rates designed for COVID-19 Emergency Window apply to loans
- ( 5 ) Financing amount available from JBIC: To be decided in the same way as other usual projects
- ( 6 ) Deadline for signing a financing agreement: June 30, 2021

# <APPENDIX> Eligible Projects (COVID-19 Emergency Window)

		QI-ESG Window	Overseas Business Expansion Window	COVID-19 Emergency Window
Type of finance		Overseas investment loan/ Untied loan/ Export loan/ Equity participation (*)	Import loan/ Overseas investment loan	Import loan/ Overseas investment loan
Projects for environmental preservation	GREEN (Global action for Reconciling Economic growth and ENvironmental preservation) projects	Projects other than "COVID-19-affected project"		<b>"COVID-19-affected project"</b> (**)
	Other projects	Same as above		
Overseas M&A deals		Same as above	Projects other than "COVID-19-affected project"	
Natural resources projects			Same as above	
Other projects			Same as above	

(\*) As for projects supported through export loan and equity participation, the same interest conditions as other usual projects will apply.

(\*\*) Not comprising acquisition deals of natural resources concessions and M&A deals whose institutional decision making by Japanese companies implemented before April 7th, 2020.

- **Eligible project under COVID-19 Emergency Window is “COVID-19-affected project”(\*) of each category above, based on Japanese company’s credit risk.**

(\*) ① The project whose funding is related to COVID-19 impact (e.g. working capital funding (over 1 year) for securing liquidity), ② The project which contributes to the prevention of COVID-19 infection (e.g. R&D, manufacturing and sales project of COVID-19-related testing kits, remedies or vaccines) and ③ The project which contributes to the enhancement of capability for overall infection including COVID-19 (e.g. various infection-related projects).

- **Both equipment funding and working capital funding (over 1 year of financing term) are eligible.**
- **Refinance from the existing loan of overseas local financial institution is possible.**

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# Thank you!

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