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Supporting Your Global Challenges

JBIC's Efforts to Promote Fuel Ammonia Business



Supporting Fuel Ammonia Supply Chain



Sources of Hydrogen

Production and its transportation

Utilization

Green Hydrogen(Renewable energy)

Blue Hydrogen(Non-renewable + CCUS)

Ammonia (NH3)

- Pipeline
- Vessels

Power Generation

Transportation

Industry Use

Similar areas in which JBIC has ever had financing experiences

- Development of gas field and coal mine
- Steam-methane reforming
- CCS / CCUS
- Renewable energy power generation

- Ammonia production
- LNG careers
- Oil and gas pipelines

- LNG receiving terminals
- Thermal power generation (gas and coal fired power plant)
- Iron manufacturing
- Oil refining

Areas in which JBIC has not experienced financing so far

Water electrolysis

Ammonia careers

Ammonia receiving terminals



- ✓ The establishment of the Post-COVID-19 Growth Facility was announced in the Comprehensive Economic Measures to Secure People's Lives and Livelihoods toward Relief and Hope (December 8, 2020, Cabinet decision).
- ✓ The Post-COVID-19 Growth Facility is established with the Facility Window for <u>Promoting Overseas Business Activities toward a</u>
 <u>Decarbonized Society</u> (<u>Decarbonization Promotion Window</u>) and the Facility Window for Enhancing Supply Chain Resilience (Supply Chain Resilience Enhancement Window).
- ✓ Eligible projects of Decarbonization Promotion Window are as below;
 - ➤ Projects that are expected to reduce greenhouse gases or contribute to preserving the global environment(eg: renewable project, energy saving projects, etc)
 - > Hydrogen, biomass fuel, etc

JBIC expands risk-taking capacity under Special Operation



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

Eligible projects (*) for the Special Operations

finance

Public infrastructure projects which provide finance to <u>the government, governmental entities</u> or local authorities

Projects developed by private companies where the <u>off-taker would be the government</u>, 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

New Area from April 2019

(Reference) Example Projects under the Special Operations

March 2017 Export finance for Iraqi government to substation facilities

May 2017 Export finance for Argentine government to automatic railway stop system

November 2018 Export credit line for Argentine National Bank

June 2020 Equity participation in the next-generation power battery systems business in Ireland which utilizes ancillary services to adjust electric power supply

June 2020 Equity Investment in Developer and Operator of Hydrogen Stations in the US



Iraq: substation facilities



Argentina: automatic railway stop system

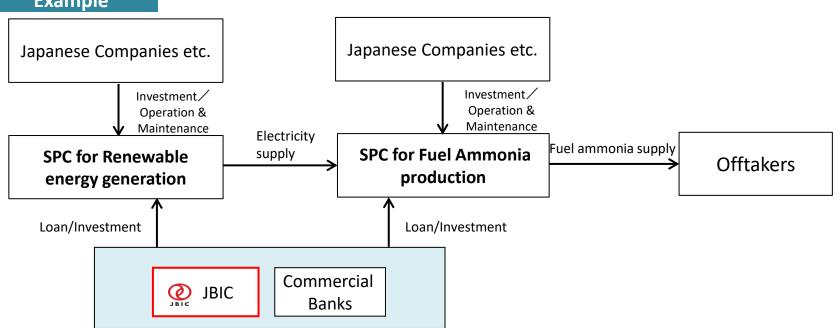
Potential Project 1 — Upstream Project Example —



Financing for Green Fuel Ammonia Production

- ◆ Providing loan/equity for a supply chain-type green fuel ammonia production project, which produces fuel ammonia from energy generated by the renewable energy generation project.
- ◆Supporting Japanese companies in securing upstream interest in green fuel ammonia production, in which demand is expected to increase towards a low-carbon society.

Structure Example



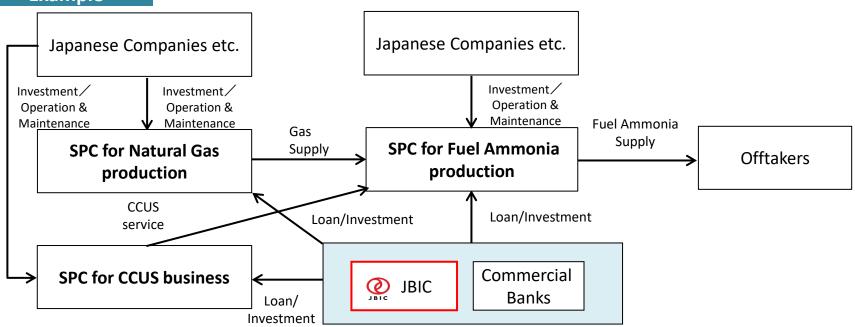
Potential Project 2 — Upstream Project Example —



Financing for Blue Fuel Ammonia Production

- ◆Providing loan for a supply chain-type blue fuel ammonia production project, which produces fuel ammonia from fossil fuels such as natural gas and crude oil, in combination with carbon dioxide capture, utilization and storage (CCUS).
- Supporting Japanese companies in securing upstream interest in blue fuel ammonia production, in which demand is expected to increase towards a low-carbon society.

Structure Example



Thank you for your attention

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