

ACCELERATING GREEN INVESTMENT IN JAPAN ~ *Innovative financing for sustainability* ~

Finance Initiative to Build a Low-Carbon Society

GREEN FUND

=

*Encourages private
investment in domestic
regional low-carbon projects*

NOVEMBER 2018

The Green Finance Organisation JAPAN

Our Challenge

- In order to achieve a low-carbon society, a huge additional investment is required in the fields of renewal energy and energy saving, and therefore utilization of private capital is essential.
- In January 2013, the Environment Minister Mr. Ishihara announced the "Finance Initiative to Build a Low-Carbon Society" aimed at utilizing private capital for measures to tackle global warming.

Our Challenge (2)

- However, local initiatives tend to face the limitations of their funding abilities because low-carbon investments require a large amount of initial investment in project- development and construction.
- Wind power and geothermal generation projects are also not without problems because they carry great risks in their development phases due to their long lead time for survey and adjustment.
- Thus, it has been difficult to secure sufficient inflow of private capital in such fields. Despite evolving efforts in terms of large-scale solar power projects, many local initiatives have faced funding shortages at their start-ups.

Our Challenge (3)

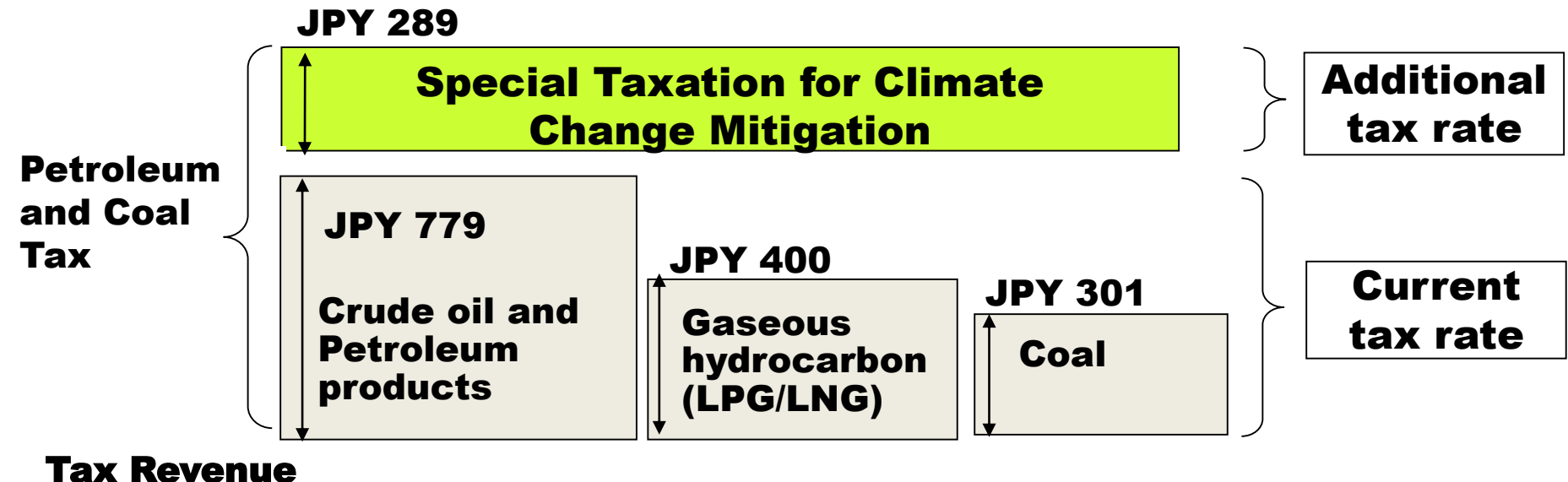
- In this regard, the fund to promote local low-carbon investment (**the Green Fund**) **launched in July 2013 aims to solidify low-carbon projects as a business model, by bolstering its own capital through "equity investment" by attracting private capital including investments and loans from local financial institutions.**
- The fund is planned to focus on projects that contribute not only to reducing CO2 emission but also to activating regional communities, such as wind, biomass and small scale hydro power generation projects invested by local companies.
- Also, the fund will support the project start-up by making investments in its development phases in which no business income is generated. This will overcome the challenges of low-carbon investments and accelerate the realization of low-carbon projects.

The Green Fund: Operation

- The Green Fund has started its operation in **July 2013**
- The Green Finance Organisation operates and manages the Green Fund
- **Fund Scale**
 - [2013FY] 1.4 billion JPY
 - [2014FY] 4.6 billion JPY
 - [2015FY] 4.6 billion JPY
 - [2016FY] 6.0 billion JPY
 - [2017FY] 4.8 billion JPY
 - [2018FY] 4.8 billion JPY
- **The Green Finance Organisation**
 - Established on 8 May 2013
 - CEO: Takejiro Sueyoshi (Special Advisor to the UNEP FI)
 - Mission: To accelerate green finance towards low-carbon societies in Japan

Carbon Tax in Japan

- ◆ **Special tax from Oct. 2012 called “Tax for Climate Change Mitigation”**
- ◆ **Tax rate corresponding to the amount of CO₂ emissions for all the fossil fuels (JPY 289/t-CO₂) (Tax rate increases over 3 and a half years)**
- ◆ **All the tax revenues will be allocated for curbing energy-oriented CO₂ emissions**



[Year 2016 and after] Annual tax revenue is JPY 260 billion

- ◆ Reducing CO₂ emissions
- ◆ Activating regional community

Wind Farm

On shore
Off Shore



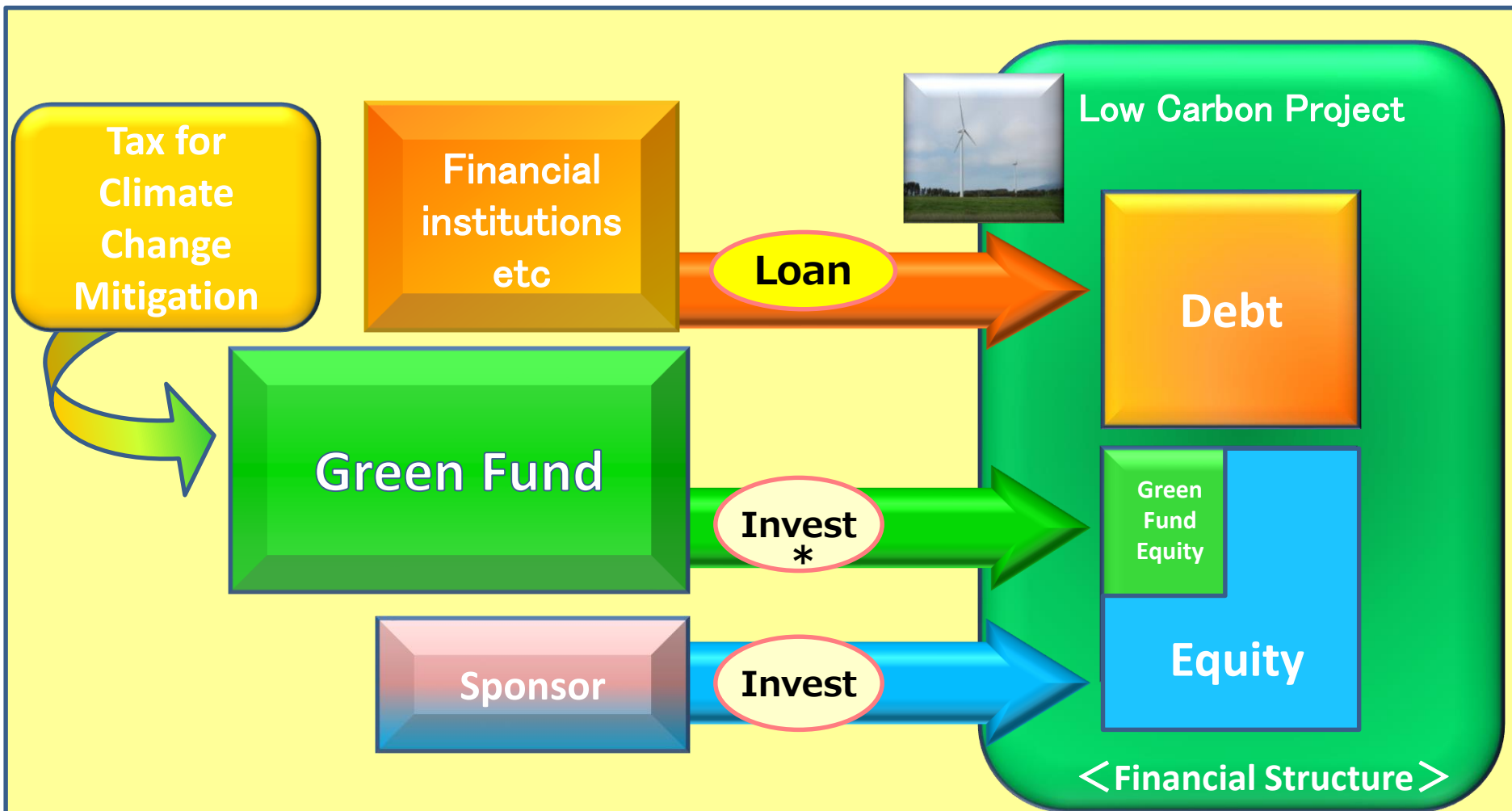
Medium/small scale Hydropower

Biomass Power Generation

Wood chips,
biogas



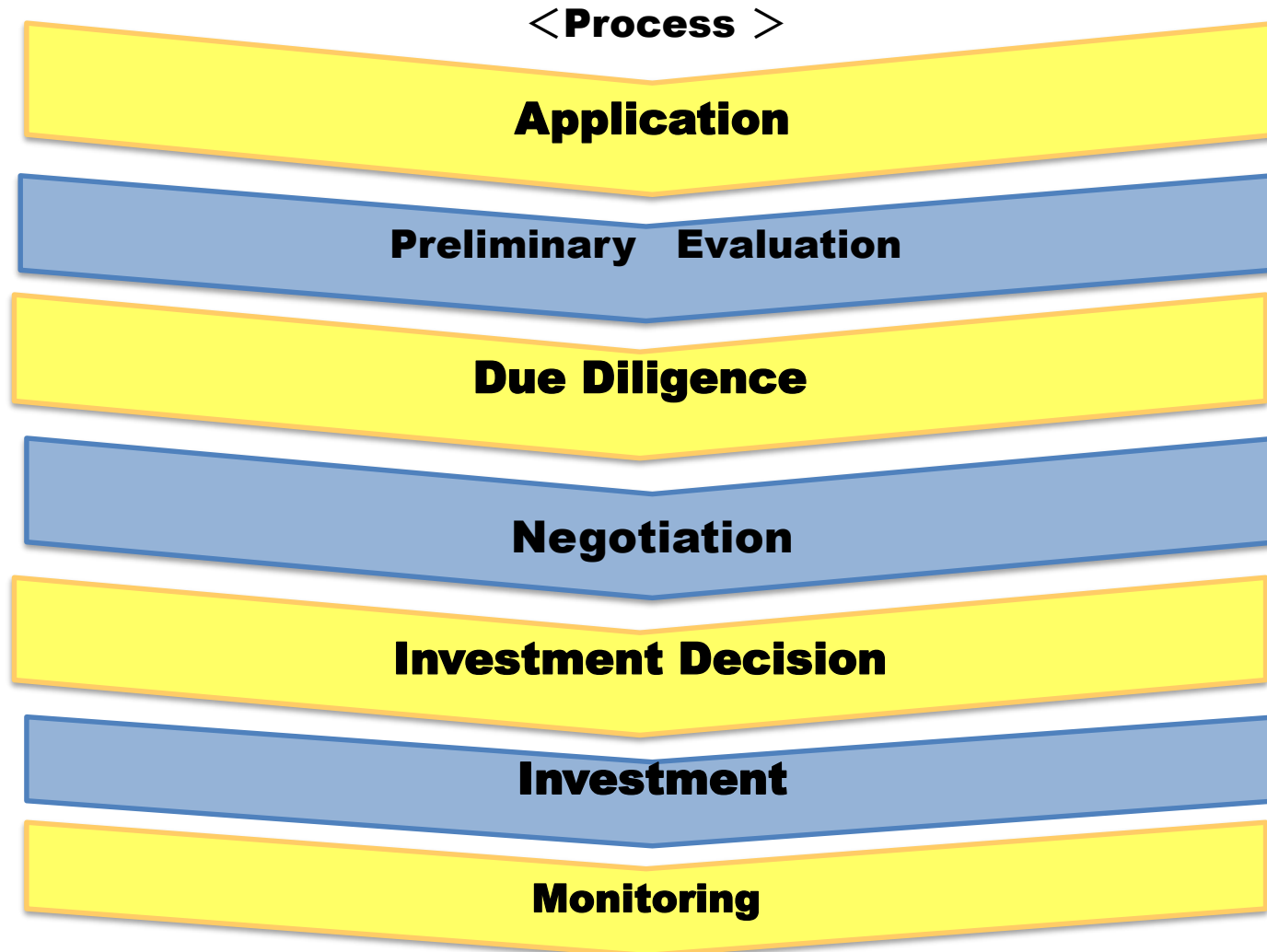
Green Fund Investment



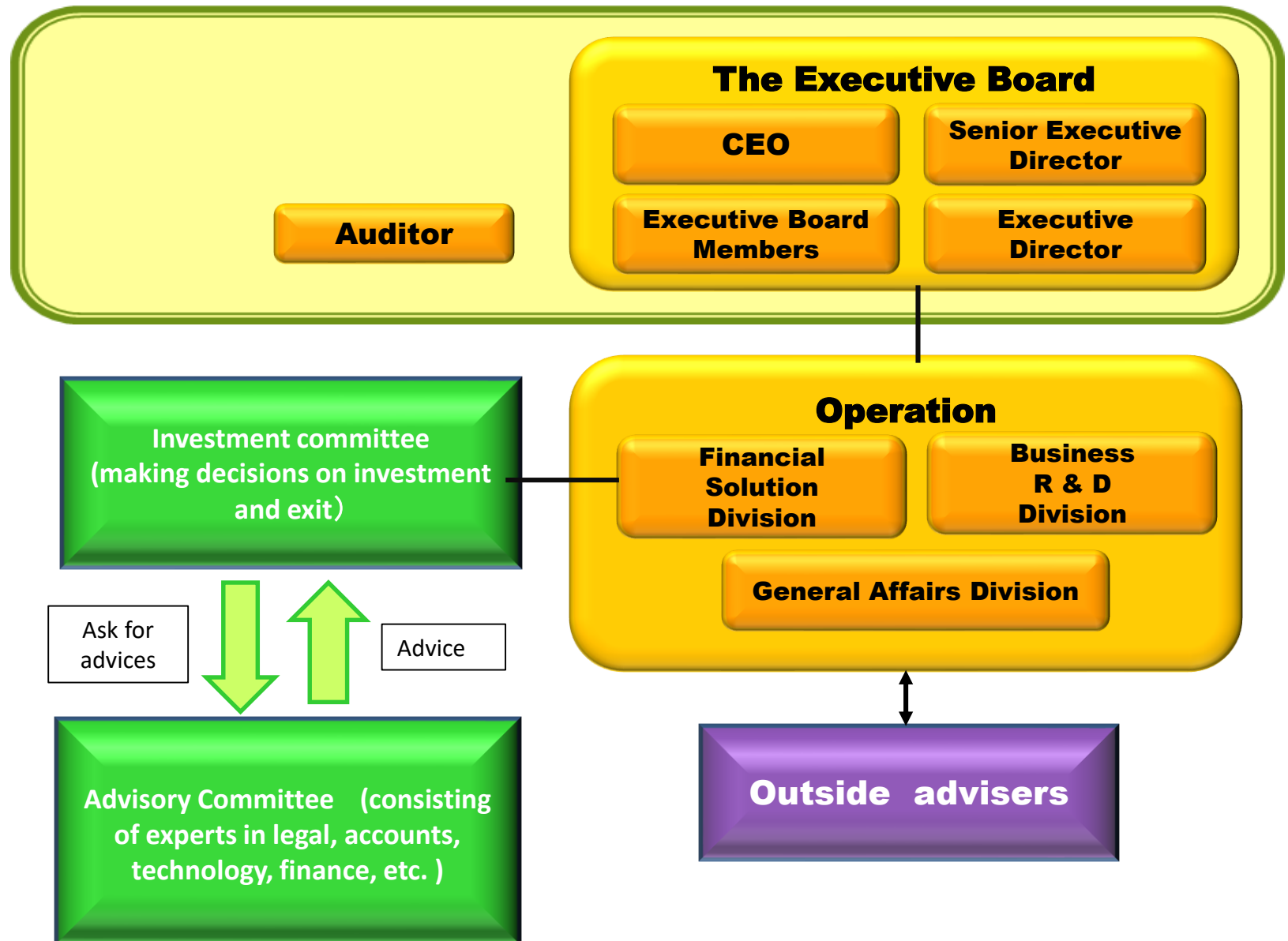
*** Our investment is limited to 1/2 of the total equity amount.**

Investment Process

Appropriate due diligence is a key



The Green Finance Organisation



We aim to....

Develop many projects which reduce CO₂ emissions and benefit local communities

Create a new stream of private capitals which realize Green economy and Low carbon society

Spread the models to the regional private sectors

Establish "success models"

Green Investment

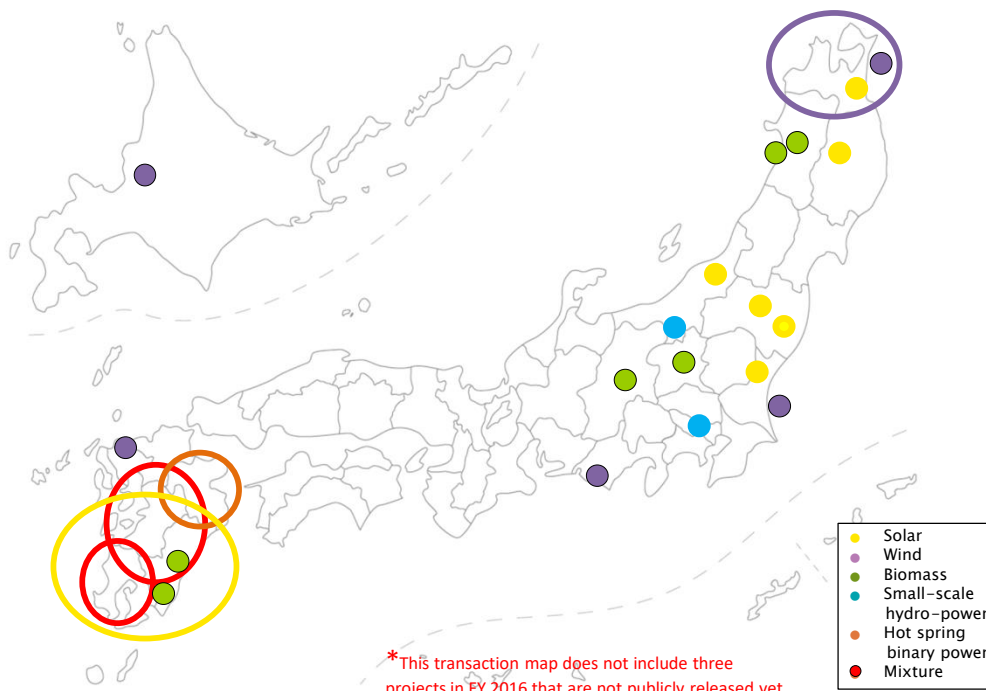
- + Decrease Debt Equity Ratio to facilitate loan financing
- + Support implementation of new business models to expand the green investment

Generate low carbon societies

Transactions in various regions and renewable energy fields until FY 2016

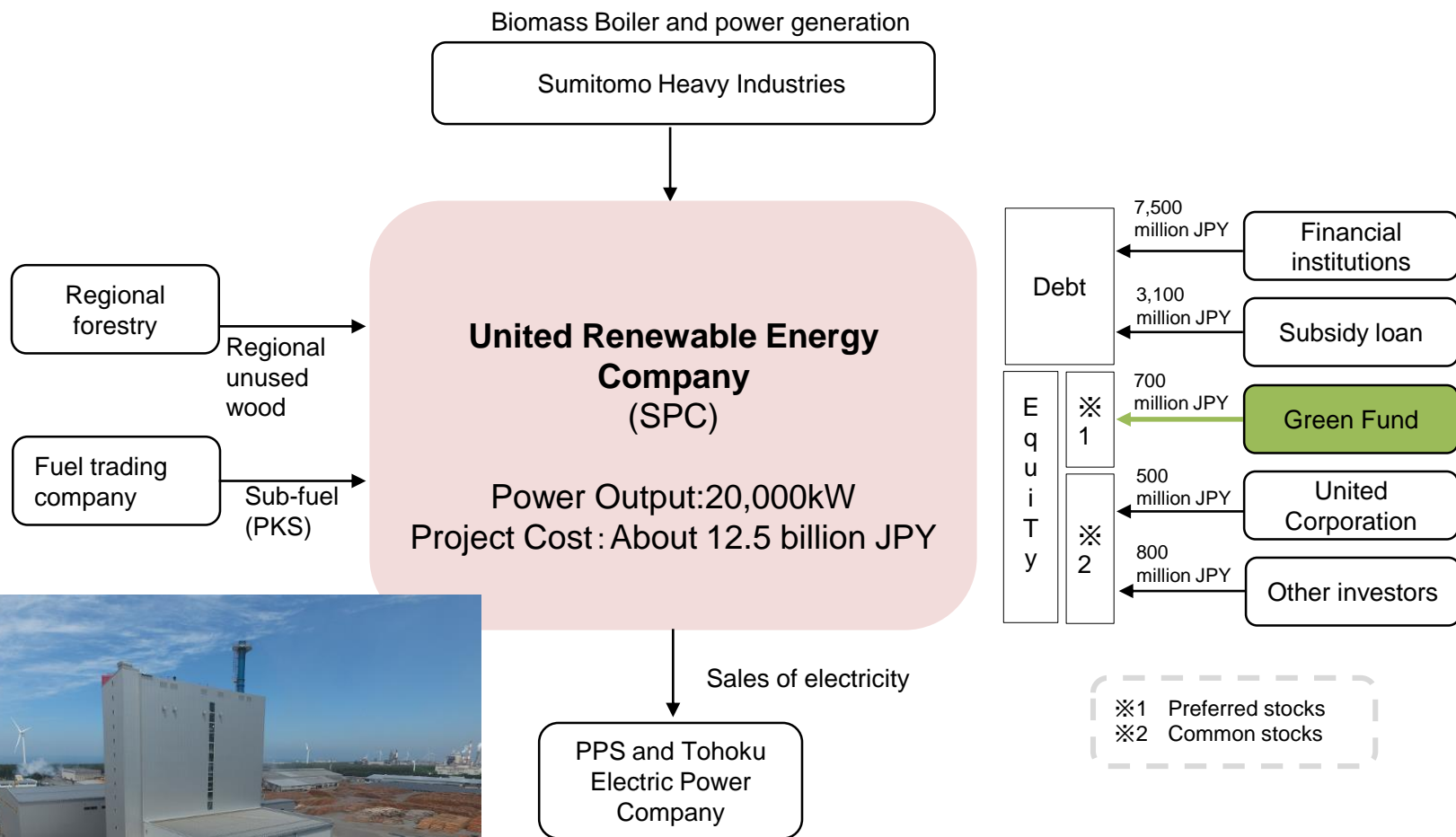
(JPY 1 million)

	FY2013		FY2014		FY2015		FY2016		Total	
	amount of investment	number of cases	amount of investment	number of cases	amount of investment	number of cases	amount of investment	number of cases	amount of investment	number of cases
Solar	50	1	440	3	770	3	0	0	1,260	7
Wind	600	2	0	0	1,090	2	2,500	3	4,190	7
Hydro	0	0	635	2	0	0	1,200	1	1,835	3
Biomass	200	2	1,500	3	0	0	606	2	2,306	7
Binary	210	1	0	0	0	0	0	0	210	1
Mixture	0	0	500	1	700	1	0	0	1,200	2
Total	1,060	6	3,075	9	2,560	6	4,306	6	11,001	27



In FY2017 GFO committed to invest six projects, two biogas, two hydro power and two wind power projects.

Wood biomass power generation project in Akita

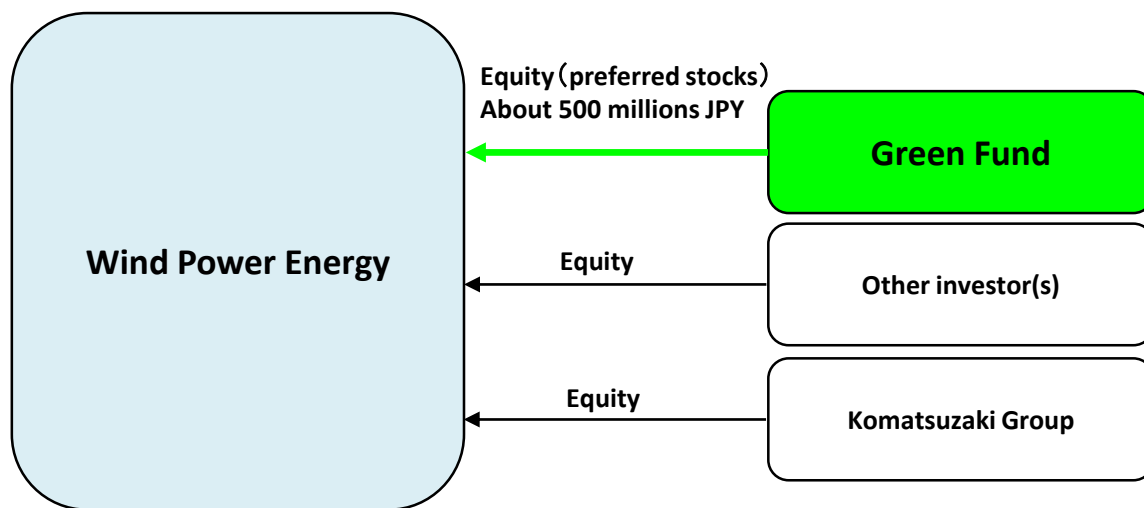


Off-shore wind farm project under development stage

15 onshore wind farms are operating.



Project cost (About 2 billion JPY)
Under development stage



(Off-shore wind farm project under development stage)

- This is the first commercial off -shore wind farm project in Japan.
Green Fund made an investment with the hope that wide knowledge and intelligence obtained through this project would contribute to the growth of Japanese technologies, relevant industries, and employment generation in the new area of the off -shore wind farm.

Green Bond Policies in Japan

Domestic Policy Related to Green Bonds

Green Bond Guidelines, 2017

These guidelines are aimed at ensuring consistency with the globally accepted Green Bond Principles in the Green Bond market, to serve as a reference for issuers, investors and other market participants engaged in practical application when they are uncertain of their judgment concerning the Green Bond issuance. Formulated in March 2017 by the Ministry of the Environment, the guidelines provide illustrative examples of specific approaches and the interpretations tailored to Japan's bond market, and the guidelines aim at ensuring the reliability of the effects of the Green Bonds on the improvement of the environment while reducing the costs and the clerical load of issuers for the spread of Green Bonds in Japan.

Pilot Project for Green Bond Issuance

A funded project by the Ministry of the Environment to disseminate information in Japan on Green Bond issuance cases that comply with the Green Bond Guidelines of 2017 and are considered model-appropriate. Model cases that selected from among the applicants will have their information disseminated to that effect, if it is confirmed by the Ministry of the Environment and the contractor that they have complied with the “expected elements” specified in the Green Bond Guidelines and they are in conformance

Financial Support Programme for Green Bond Issuance

A programme by which the Ministry of the Environment provides subsidies for expenses required by those who support companies, municipalities, and other bodies that work to issue Green Bonds, in the form of the issuance support (granting external reviews, consultation on establishing a Green Bond framework, etc.)

Platform for Promoting Green Bond Issuance

The website which is managed and is operated by the Ministry of the Environment to collect and disseminate information related to Green Bonds. Specifically, the site registers and lists those that support Green Bond issuance, analyzes domestic and global trends and disseminates such information, and shares information on issuance cases.

Platform for Green Bonds and Social Bonds

The Tokyo Stock Exchange launched a platform on January 22, 2018 on which information pertaining to Green and Social bonds from among those listed on TOKYO PRO-BOND Market, a bond market for professional investors can be posted on a voluntary basis. For each bond, the issuers post information such as the use of proceeds, external reviews, reporting (status of the use of proceeds and funds allocation), etc. to make information available to investors that are interested in responsible investment that incorporate Environment, Social, and Governance (ESG).

Financial Support Programme for Green Bond Issuance (Subsidy Project)

Subsidies will be provided for the expenses that are required by those who support companies, municipalities and other bodies who seek to issue Green Bonds, in the form of granting external reviews, consultation on establishing a Green Bond framework, etc.

① Basic Scheme

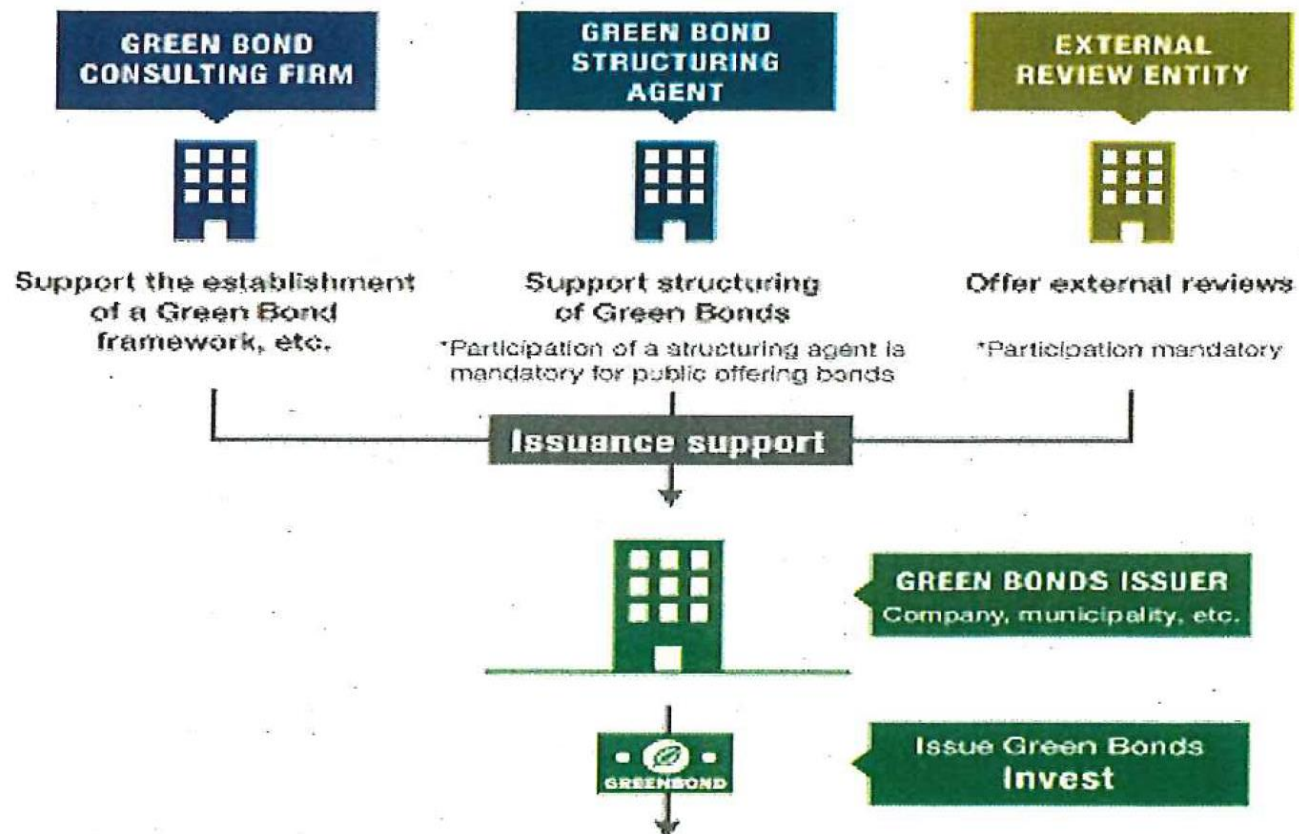
Issuance supporters registered in each category of external review, Green Bond consulting, and Green Bond structuring agent (registered issuance supporters) jointly create Green Bond issuance support plans that meet the criteria and implement support for the issuance of Green Bond. If Green Bonds are issued, subsidies within the upper limit amount are provided.

See the scheme illustration

Green Bond

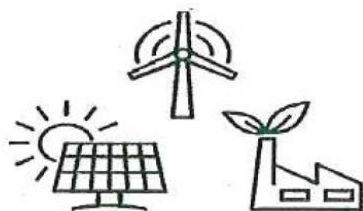
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Green Bond

Eligible Green Projects



Projects that mainly contribute to domestic decarbonization
(Renewable Energy Projects/energy-efficient building development and renovation)

Projects with high effects on decarbonization and vitalization of local economy

② Eligible Expense for Subsidies

The subsidized expenses are external costs that are deemed to additionally incur when issuing Green Bonds

Fund recipients and costs eligible for the subsidies	
Fund recipients	Subsidies
External review entity	Costs required for external review (before issuance/after issuance/during)
Consulting firm	Costs required for consultation regarding the Green Bond framework

- Costs related to structuring are not eligible for subsidies.

Perspective Regarding Upper Limit of Subsidies

Calculated based on the actual cost of support for a Green Bond issuance (in the case of support over a number of years, or in the case of several supporters of the issuance, the total amount thereof)

The upper limit will be the lower of the actual cost and JPY50 million.

Within the range of subsidies applied for with the issuance support plan (in the case of multiple supporters, adjust the amount and list separately)

The upper limit of subsidies for actual expenses is scheduled to gradually decrease each fiscal year.

Points to Keep in Mind

Ultimately, if the Green Bonds are not issued within three years after eligibility has been granted or if the Green Bonds are issued that do not meet the criteria, the subsidy will be subject to a refund.

③Eligibility Criteria of a Green Bond

Use of Proceeds

A Green Project that meets one of the following criteria:

1. **Contributes mainly to domestic decarbonization (renewable energy, energy efficiency, etc.)**
 - Projects for which more than half of the procured amount or more than half of the number of projects is domestic decarbonization-related project.
2. **Has high decarbonization and effects on vitalization of local economy.**
 - Decarbonization effects

Those whose subsidy amount per ton of domestic CO2 reduction is less than the specified amount.

- effects on vitalization of local economy

Projects that are expected to contribute to effects on vitalization of local economy as part of the ordinance and plan, etc. decided by the municipality, projects for which investment by municipalities can be anticipated, etc.

Issuer

Companies, municipalities, etc. based in Japan.

Currency/Market

Yen-denominated/foreign currency denomination, foreign bonds/domestic bonds, public offering bonds/private placements

Compliance

The Green Bond Principles, ASEAN Green Bond Standard, Climate Bonds Standard, etc. can be selected for external review compliance, etc according to the issuing market and the investor group, in addition to the Green Bond Guidelines. However, it is necessary for compliance with the Green Bond Guidelines to be confirmed by an external review organization before issuance.

④Procedures

Registration System of Green Bond Issuance Supporters

1. Issuance supporters apply for registration.
2. Registration application to be examined based on the registration criteria.
3. Registration decision, notification
The registration decision will be held every month and will be announced on this website.
4. Registered issuance supporters are listed on this website.

Financial Support Programme for Green Bond Issuance

1. Registered issuance supporters apply for the subsidy.
2. The registered issuance supporters accept the contract with the issuers and create an issuance support plan.
3. Each of the registered issuance supporters applies for the subsidy.
4. Applications are reviewed.
5. Decisions are made regarding the subsidy.
Application and approval for changes are made as necessary.
6. Performance to be reported after project completion or at the end of the fiscal year.
7. Subsidy amount fixed.
8. Subsidy granted (payable to the cost actually incurred project)

THANK YOU!



Green Finance Organisation
JAPAN