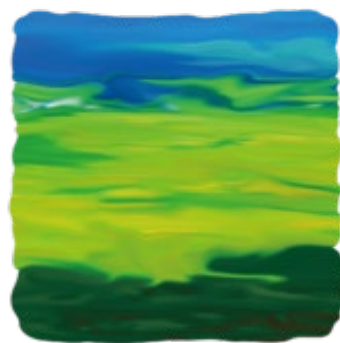


Dedicated to sustaining all life.

# The Norinchukin Bank Green Bond Annual Investor Report (As of 31 March 2023)



**NORINCHUKIN**

**June 2023**

# Overview of Medium/Long-Term Goals

- The Bank has progressed its initiatives toward the Medium/Long-Term Goals to fulfill our Purpose.
- In FY2022, the Bank updated its goals as "Reduce GHG emissions Net Zero by 2050" to promote further initiatives toward carbon-free society.

## Medium/Long-Term Goals



**Reduce GHG emissions  
Net Zero by 2050**



**Increase the income of farmers,  
fishermen and foresters**



### Reduce financed emissions

Interim target for FY2030 toward "Net Zero by 2050" (vs. FY2019)

Lending : Power sector 138–165g CO<sub>2</sub> e/kWh

(Plans to expand to other sectors accordingly)

Investment : 49% reduction of assumed emissions based on the economic activity of the Bank's investees.



### Increase the forest CO<sub>2</sub> absorption, together with JForest members

9 million tons per year as of FY2030



### Reduce GHG emissions by the Bank itself

Net Zero by FY2030



### Execute New Sustainable Finance

JPY 10 trillion by FY2030



### Promote Active Participation of Women in Managerial Positions

Target share of female managers: 13% by FY2030, 30% by FY2040

# Reduction of GHG Emissions

- The Bank set an interim target for FY2030 to achieve “Net Zero by 2050.”
- With our stakeholders, the Bank takes initiatives to reduce financed emissions, increase the forest CO2 absorption together with JForest members, and reduce GHG emissions by the Bank itself.

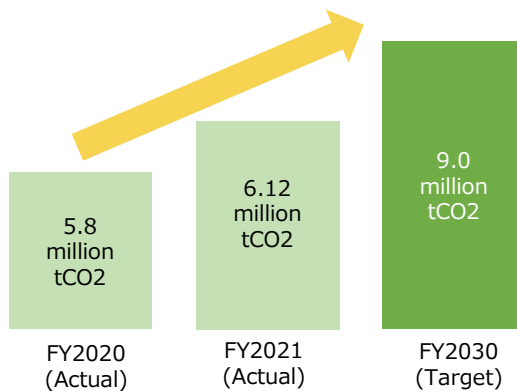
## “Net Zero by 2050”

### Reducing GHG emissions of investees and borrowers

- The Bank joined the Net-Zero Banking Alliance (NZBA), a global alliance of banks whose members have committed to achieve net-zero emissions across their respective lending and investing activities by 2050, in alignment with the Paris Agreement. To achieve “Net Zero by 2050,” the Bank has set an interim target for FY2030.
- The Bank undertakes engagement (constructive dialogue) with its customers to support their transition to a post-carbon society.

### Increasing the forest CO2 absorption with JForest members

- In collaboration with JForest members, the Bank crystalized its forest CO2 absorption target as 9 million tons by FY2030.
- The Bank has supported JForest members’ forestry operations through Nochu Potential Forest Productivity Fund and Forestry Labor Safety Improvement Measures.
- In FY2022, the Bank launched a new platform to support JForest members from production to distribution of their forest credits.



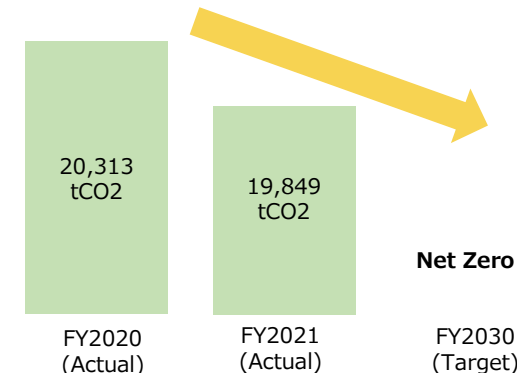
	FY2019	FY2020 (Preliminary figures)	FY2030 Target
<b>Lending Portfolio*1 (Power Sector)</b>	213 gCO2e/kWh	<b>217</b> ※2 gCO2e/kWh	138-165 gCO2e/kWh
<b>Investment Portfolio</b>	0.66 tCO2e/ million yen	<b>0.55</b> tCO2e/ million yen (17% reduction compared to FY2019)	49% reduction Compared to FY2019

※1 Plans to expand to other sectors accordingly.

※2 The increase of the figures for lending portfolio of FY2020 compared to FY2019 was due to an increase in the number of business partners categorized in the power sector as a result of system registrations, in addition to an increase in the lending amount during the COVID-19 pandemic.

### Reducing GHG emissions by the Bank itself

- The Bank aims to reduce GHG emissions from its own facilities to Net Zero by FY2030.
- The Bank takes reduction efforts through further energy efficiency improvements and switching its electricity sources to renewable energy etc.



# Initiatives to Increase the income of Farmers, Fishermen and Foresters

- The Bank pursues to increase the income of farmers, fishermen and foresters through consulting activity for AFF corporations and leaders.

## Contributing to Sustainable AFF Industries and Regions

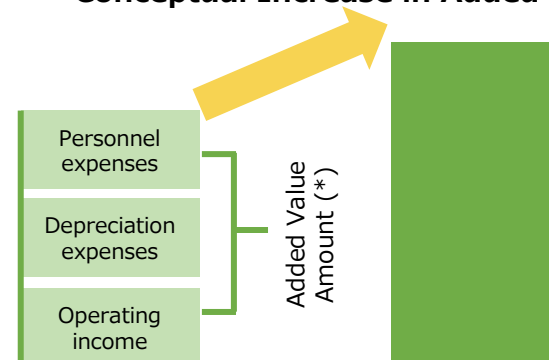
### Initiatives to increase the income of AFF corporations and leaders

- The Bank defines "Added Value Amount" as an indicator to measure the extent of income growth of AFF corporations and leaders, and it aims to continuously contribute to increasing the income of workers in the industries and regions.
- The Bank offers proposals to resolve a wide variety of management issues that relevant local leaders faced in collaboration with JA Shinnoren and Japan Agricultural Cooperatives (JA). (FY2021: 186 cases, FY2022: 301 cases)
- In addition to providing proposals and solutions to the AFF corporations and leaders, the Bank contributes to following the progress and resulting effects of the formulated action plans.

### [Topics] Consulting activity for AFF corporations and leaders

- The Bank started a consultation project with its client, Himi Inazumi Ume Co., Ltd. (the "company") from FY2021. The Bank proposed to deploy "V-shaped trimmed tree cultivation method" to plum trees for the first time in Japan, along with carrying out periodical planting activities with students from a local agricultural high school in cooperation with a prefectural agricultural promotion center.
- The implementation of the proposed solutions is expected to enable the company to acquire local youth supporters, reduce significant working hours, and improve profitability. In the next step, the Bank will continue its support to increase "Added Value Amount" of the company, while following up the progress and resulting effects of the proposed action plans.

### Conceptual Increase in Added Value



(\*) The Bank defines "Added Value Amount" (the sum of operating income, depreciation expenses and personnel expenses) to include not only the perspective of "profit improvement" but also concepts such as "appropriate capital expenditure" and "investment in human resources."

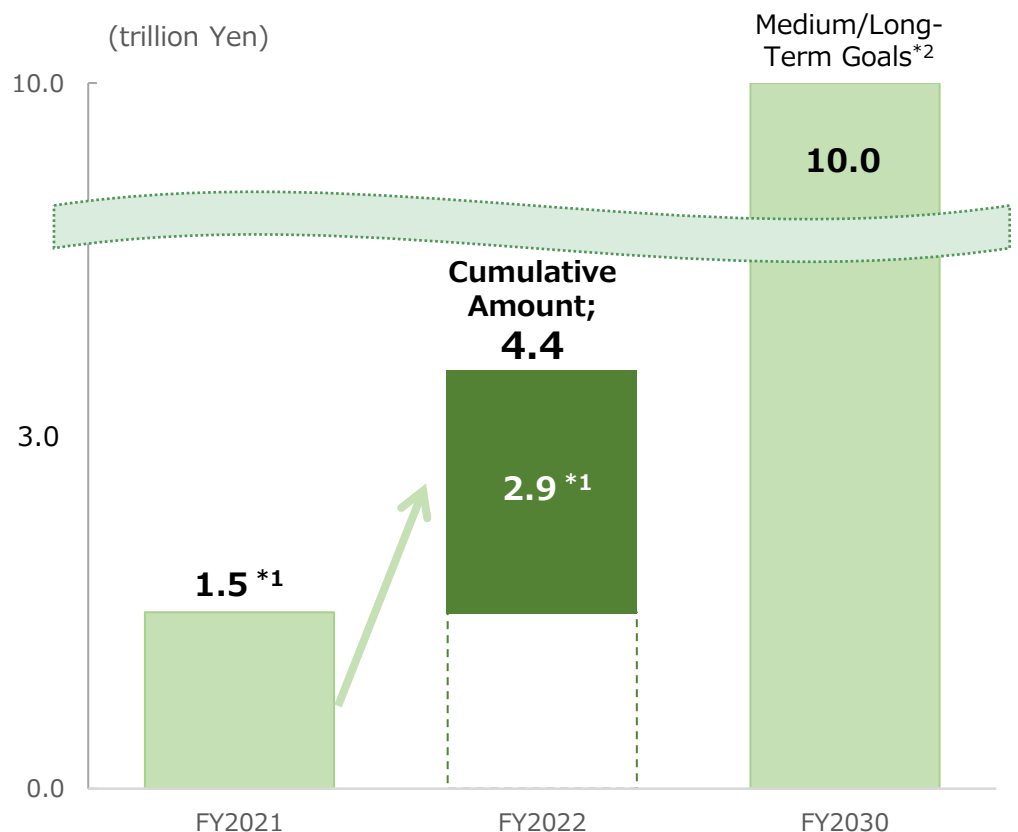


A scene of plum planting activity with students

# New Sustainable Finance

- Newly executed sustainable finance during FY2022 reached approximately JPY 2.9 trillion (Cumulative amount of sustainable finance from the beginning of FY2021; JPY 4.4 trillion)

## New Sustainable Finance



\*1 Investments and loans focusing on Environment are 0.7 and 0.8 trillion JPY in FY2021 and FY2022 respectively.

\*2 Cumulative amount of new sustainable finance from FY2021 to FY2030 (10 years)

## Breakdown of new sustainable finance (FY2022)

Investments & Loans	Market Investment Assets etc.	JPY 1.4 trillion
	Project Finance	JPY 0.8 trillion
	ESG Loans	JPY 0.6 trillion
Funding	Green Bonds and Green Deposits	JPY 0.1 trillion

## Examples

### "Sustainability Linked Loan" to an AFF corporation

- Executed sustainability linked loan with an AFF corporation, setting sustainability performance targets that correspond to the borrower's GHG reduction goal

### "Sustainability Linked Loan" to a power company

- Executed sustainability linked loan with a power company, setting sustainability performance targets that correspond to the borrower's decarbonization

### Investment in "Feed-Africa Bond"

- Invested in the "Feed Africa" Theme Bond issued by the African Development Bank (the "AfDB"), aiming to support the AfDB's initiatives and contribute to the increase in food production in Africa.

## The Bank's Initiatives to Create Impact Through Investments and Financing Activities

- Signed "Japan Impact-driven Financing Initiatives" which is a collaborative initiative of Japanese financial institutions in November 2022
- Promoting efforts to create and visualize positive and measurable impacts on environmental and social issues through investment and financing

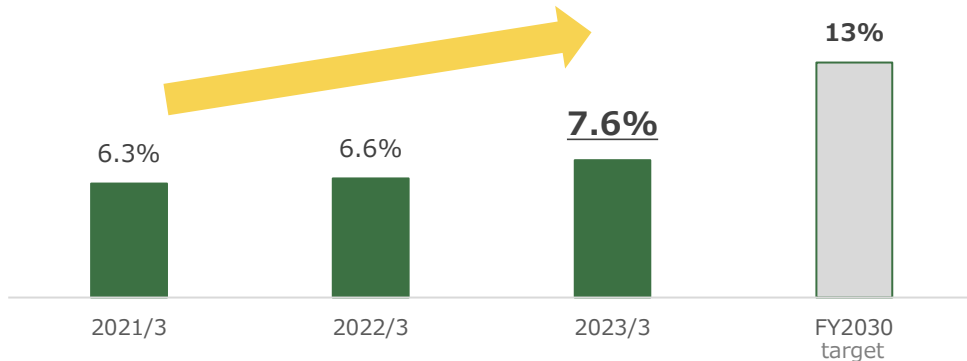
# Participation of Women in Managerial Positions

- ▶ The Bank will continue to make multifaceted efforts to promote active participation of women in managerial positions by supporting female employees and fostering awareness among its directors and employees.

## Initiatives Toward the Target Share of Female Managers

### Trend in Percentage of Female Managers

- ▶ Steady progress toward achieving Medium/Long-Term Goal of 13% by FY2030 (Actual: 7.6% as of the end of March 2023)



### Initiatives to Promote Active Participation of Women

- ▶ Introduced external mentor programs and training programs for cross-industry exchanges for women.
- ▶ Introduced a flextime system without core time in certain divisions in advance in April 2022, leading majority of divisions to follow them in April 2023.
- ▶ Expressed support for the “Work Interval Declaration” initiative in Japan to comply with the specified work interval of nine (9) hours between working hours and notified employees.
- ▶ Holding seminars for expecting mothers and fathers as well as for managerial employees to promote taking paternity leaves.

### Efforts to Foster Awareness and Behavior Among Directors and Employees

- ▶ Providing lectures by guest speakers to foster awareness among directors and employees regarding the importance of promoting diversity and inclusion.
- ▶ Delivering messages from directors and officers to employees via diversity newsletters and videos.



- ▶ Holding staff-participatory working groups on the following topics:
  - ① **Work-life balance support:** Employees discussed how to support female employees who just returned to workplaces from their childcare leaves and what are countermeasures before, during, and after those leaves.
  - ② **Fostering awareness among managers:** Men in managerial positions discussed how to promote women's active participation and work style changes in their divisions and offices.
  - ③ **Round-table discussions with managers:** Round-table discussions were held with managers and mid-level employees to discuss how rewarding becoming a manager is and how to balance work and private lives.



Feedbacks and comments from the working group members to be reflected in the Bank's D&I initiatives



# Initiatives for Nature Capital and Biodiversity

- As the global importance of nature capital and biodiversity increases, the Bank is progressing initiatives to identify and disclose related risks and opportunities in collaboration with the stakeholders.

## Initiatives to Nature Positive (\*) and Participation in the TNFD Framework Development Efforts as a Taskforce member

(※) Nature positive is the term used to describe a state where nature - species and ecosystems – is being restored and is regenerating rather than declining.

### The Bank's Progress in FY2022

#### The Bank's portfolio analysis and disclosure

- In light of the heightened global importance of nature capital and biodiversity, the Bank conducted an analysis of its portfolio from the perspectives of the Bank's dependency on nature and its impact on the Bank's portfolio, which was disclosed in March 2023.

#### The launch of FANPS together with Japanese financial groups

- With the aim of promoting and supporting in its role as a financial institution for a transition to a nature positive approach in the business activities of its investees and borrowers, the Bank launched the Finance Alliance for Nature Positive Solutions (FANPS), together with Sumitomo Mitsui Financial Group, Inc., MS&AD Insurance Group Holdings, Inc., and Development Bank of Japan Inc.(DBJ).

### Toward the Completion of TNFD (\*) Framework (v1.0)

- Participating in an international rule-making as a task force member and contributing to the development of a global disclosure framework, TNFD Framework (v1.0) scheduled to be completed in September 2023.
- Based on the completion of the TNFD Framework (v1.0) and domestic and overseas trends, the Bank will identify, analyze, and disclose its nature-related risks and opportunities.

(※) Taskforce on Nature-related Financial Disclosures: An international initiative to develop and provide a recommended framework for disclosing nature-related financial information officially launched in June 2021.

### Insights obtained from the Bank's portfolio analysis in terms of risks and opportunities related to nature capital

- As a result of the analysis on its portfolio, the Bank recognizes that there are significant dependencies and impacts in relation to water resources in the utilities sector.
- The Bank conducted detailed analysis on offshore wind power generation projects in the U.K. and North Sea as an example.



The analysis above is presented in the pilot report (\*) published by UNEP FI in April 2023.  
 (※) "Unboxing Nature-related Risks Insights from the UNEP FI-led TNFD Piloting Programme"

### Recent Topics: Investing in World Bank Bonds on Biodiversity

- Investing in Sustainable Development Bonds issued by the World Bank for the purpose of raising awareness of biodiversity and natural ecosystem services.

# Allocation & Impact Reporting (1/4)

## Proceeds from Issuance of Green Bond

Senior Note USD500,000,000 1.284% Due 22 September 2026

Category	Sub-Category	Last Financing Date	Currency	Country	Balance (USD mn)*	CO <sub>2</sub> Emissions Reduction (t-CO <sub>2</sub> )	of which Norinchukin Financed
Renewable Energy	Wind	January 2020	CAD	Canada	48	287,798	22,035
Renewable Energy	Wind	December 2019	EUR	Germany	57	714,711	68,244
Renewable Energy	Wind	January 2020	EUR	Germany	48	675,402	16,353
Renewable Energy	Wind	June 2021	GBP	UK	57	1,331,576	8,665
Renewable Energy	Wind	October 2019	GBP	UK	45	642,830	12,867
Renewable Energy	Solar	March 2020	JPY	Japan	67	74,722	19,394
Renewable Energy	Solar	December 2019	JPY	Japan	50	31,690	13,946
Renewable Energy	Solar	December 2019	JPY	Japan	36	19,681	9,289
Renewable Energy	Solar	December 2019	JPY	Japan	51	27,354	12,924
Green Building	Office/DBJ 5 Stars	December 2019	JPY	Japan	20	6,025	41
Green Building	Office/CASBEE S	February 2020	JPY	Japan	22	4,718	260
<b>Total</b>					<b>503</b>	<b>3,816,506</b>	<b>184,018</b>

\* Translated into USD at the exchange rates as of 31 March 2023

Net Proceeds from Bond Issuance (USD mn)	500
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# Allocation & Impact Reporting (2/4)

## Proceeds from Issuance of Green Bond

Senior Note USD500,000,000 2.080% Due 22 September 2031

Category	Sub-Category	Last Financing Date	Currency	Country	Balance (USD mn)*	CO <sub>2</sub> Emissions Reduction (t-CO <sub>2</sub> )	
							of which Norinchukin Financed
Renewable Energy	Wind	January 2022	GBP	UK	213	780,579	43,090
Renewable Energy	Wind	March 2023	GBP	UK	239	495,241	42,690
Renewable Energy	Solar	February 2021	JPY	Japan	42	22,950	9,006
Renewable Energy	Solar	August 2020	JPY	Japan	29	15,211	5,015
Total					524	1,313,982	99,801

\* Translated into USD at the exchange rates as of 31 March 2023

Net Proceeds from Bond Issuance (USD mn)	500
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# Allocation & Impact Reporting (3/4)

## Proceeds from Issuance of Green Bond

Senior Note USD500,000,000 4.867% Due 14 September 2027

Category	Sub-Category	Last Financing Date	Currency	Country	Balance (USD mn)*	CO <sub>2</sub> Emissions Reduction (t-CO <sub>2</sub> )		
							of which Norinchukin Financed	
Renewable Energy	Wind	June 2022	GBP	UK	157	1,038,586	55,262	
Renewable Energy	Wind	November 2022	GBP	UK	147	940,193	78,304	
Renewable Energy	Wind	March 2023	GBP	UK	137	1,311,898	73,705	
Renewable Energy	Solar	June 2021	JPY	Japan	57	29,348	10,430	
Renewable Energy	Solar	January 2022	JPY	Japan	20	34,492	6,502	
					<b>Total</b>	<b>518</b>	<b>3,354,517</b>	<b>224,203</b>

\* Translated into USD at the exchange rates as of 31 March 2023

Net Proceeds from Bond Issuance (USD mn)	500
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# Allocation & Impact Reporting (4/4)

## Proceeds from Issuance of Green Bond

Senior Note USD500,000,000 5.430% Due 9 March 2028

Category	Sub-Category	Last Financing Date	Currency	Country	Balance (USD mn)*	CO <sub>2</sub> Emissions Reduction (t-CO <sub>2</sub> )	of which Norinchukin Financed
Renewable Energy	Wind	October 2021	CAD	Canada	93	319,775	37,118
Renewable Energy	Wind	March 2023	USD	US	151	962,058	35,070
Renewable Energy	Solar	June 2021	USD	US	25	38,791	8,333
Renewable Energy	Solar	December 2021	USD	US	87	131,050	20,069
Renewable Energy	Solar	March 2022	JPY	Japan	66	157,117	14,714
Renewable Energy	Solar	June 2021	JPY	Japan	101	172,128	20,778
<b>Total</b>					<b>523</b>	<b>1,780,918</b>	<b>136,082</b>

\* Translated into USD at the exchange rates as of 31 March 2023

Net Proceeds from Bond Issuance (USD mn)	500
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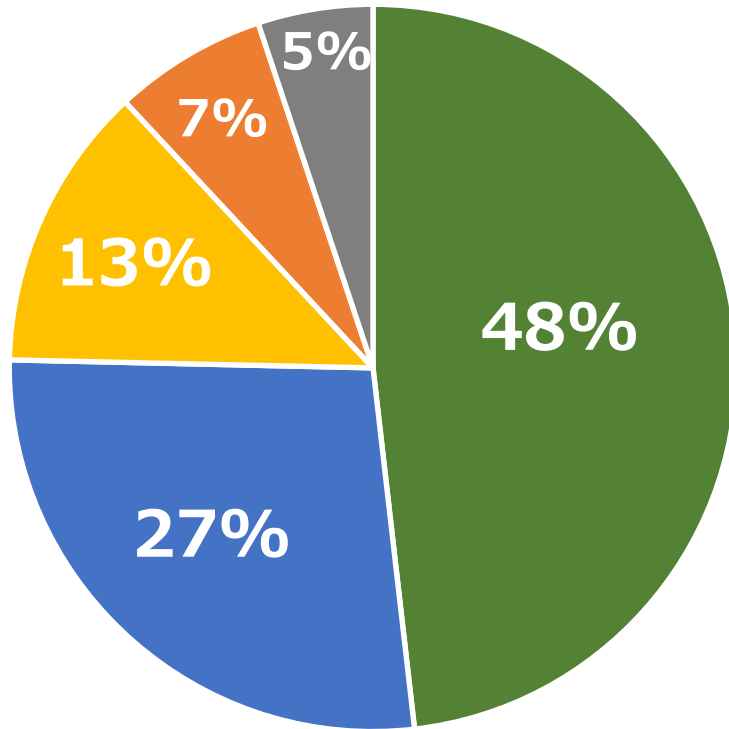
# Impact Reporting : Total

Category	Sub-Category	Country	Number of Projects	Annual Power Generation (MWh)	CO2 Emissions Reduction (t-CO2)	of which Norinchukin Financed
Renewable Energy	Wind	Canada Germany UK US	12	27,778,748	9,500,646	493,402
Renewable Energy	Solar	Japan US	12	1,787,621	754,534	150,401
Green Bulding	Office	Japan	2	-	10,743	301

<b>Total</b>	26	29,566,369	10,265,923	644,105
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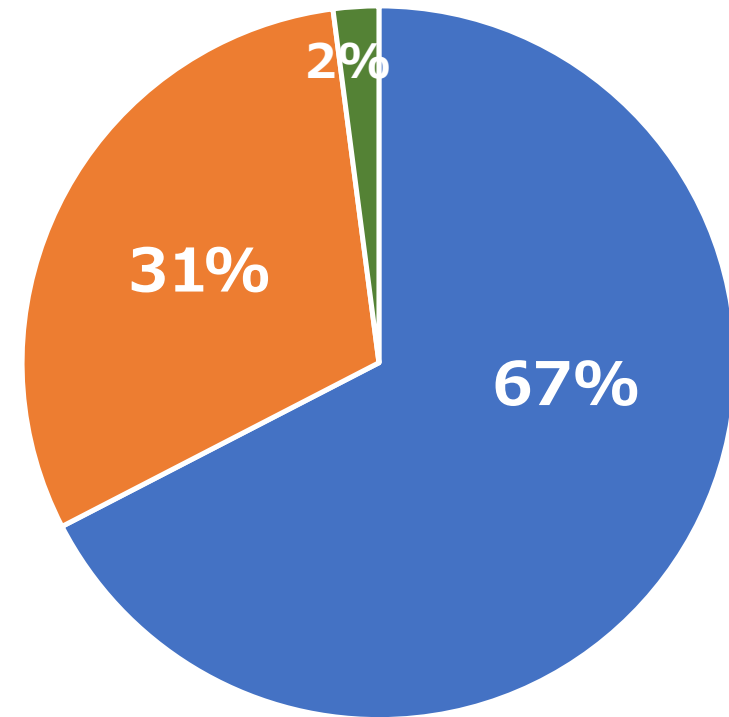
# Use of proceeds by Country and Sub-category

By Country



- UK
- Japan
- US
- Canada
- Germany

By Sub-Category



- Wind
- Solar
- Green Building



# Example of Eligible Assets

## Offshore Wind Power Generation Project

The Norinchukin Bank signed a loan agreement to finance an offshore wind power generation project in the UK.

The power plant is located 120km from the Yorkshire coast and is now commercially operational.

It has a total generation capacity of 1,218MW, which is enough to provide power for well over 1 million ordinary households in the UK.



Hornsea One Offshore Wind Farm Project

## Solar Power Generation Project

The Norinchukin Bank provided project financing for a solar power generation project in Fukushima Prefecture, Japan.

The power plant has a total generation capacity of 44MW and commenced commercial operation in 2020.



Fukushima Ishikawa Solar Project

# Calculation Method of CO<sub>2</sub> Emission Reduction

## Renewable Energy

### Annual Power Generation (MWh)

$$= \text{Facility Capacity (MW)} \times 24\text{hours} \times 365\text{days} \times \text{Capacity Factor (*1)}$$

### Annual CO<sub>2</sub> Emissions Reduction

$$= \text{Annual Power Generation (MWh)} \times \text{CO}_2 \text{ emission factor (t-CO}_2\text{/MWh : *2)}$$

#### \*1 Capacity factor

The capacity factor is quoted from “Renewable Power Generation Costs in 2021” released by International Renewable Energy Agency (IRENA).

Generation type	Capacity factor
Offshore Wind	39%
Onshore Wind	39%
Solar	17%

## Green Building

### Annual CO<sub>2</sub> Emissions Reduction

$$= \text{Actual CO}_2 \text{ emissions of eligible projects} - \text{Benchmark CO}_2 \text{ emissions (*3)}$$

### Benchmark CO<sub>2</sub> emissions (\*3)

$$\text{Total floor area (m}^2\text{)} \times \text{Benchmark energy consumption (MJ/m}^2\text{ : *4)} \times \text{Carbon intensity (t-CO}_2\text{/MJ)}$$

\*4 Benchmark energy consumption is published by Comprehensive Assessment System for Built Environment Efficiency (CASBEE)

#### \*2 CO<sub>2</sub> emission factor

CO<sub>2</sub> emission factors are derived from “EIB Project Carbon Footprint Methodologies” (January 2023) released by European Investment Bank.

Country	CO <sub>2</sub> Emission factor
Canada	0.312
Germany	0.523
Japan	0.448
UK	0.320
US	0.352