# Mizuho Financial Group, Inc.

## GREEN BOND FRAMEWORK

MAY 2025

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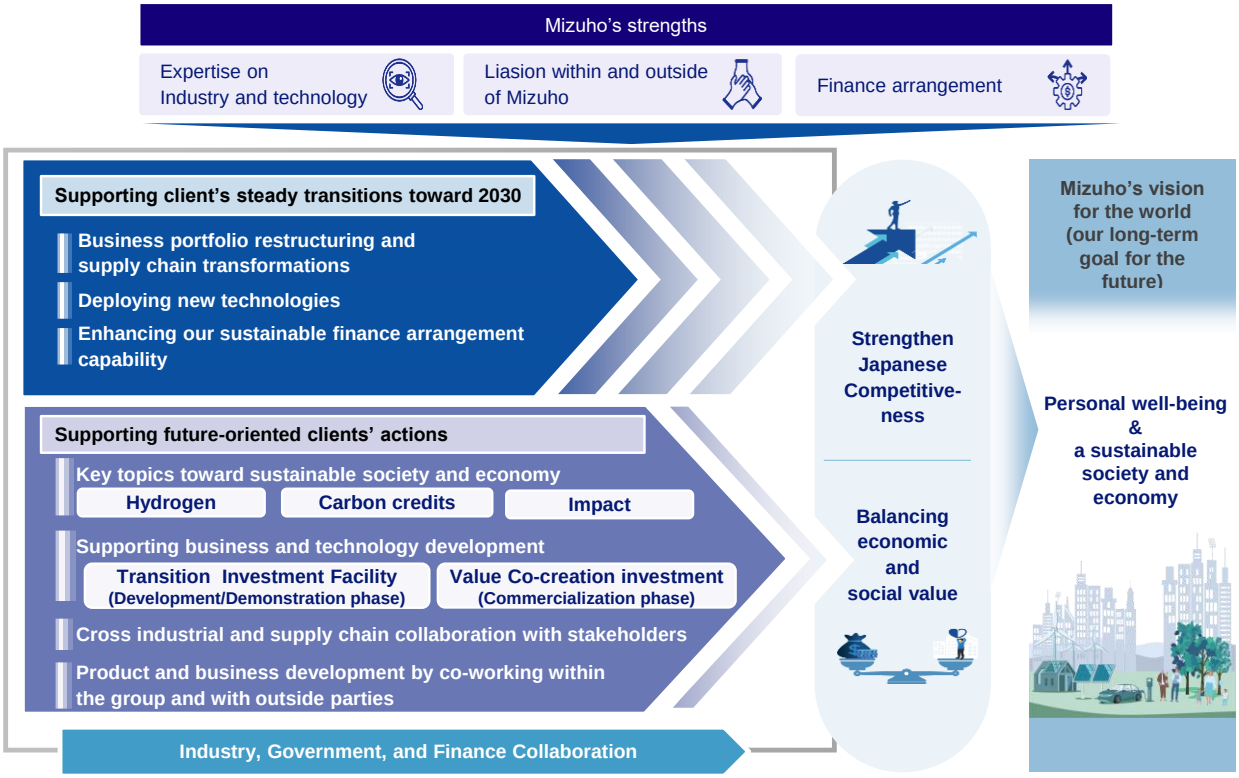
# 1 Introduction

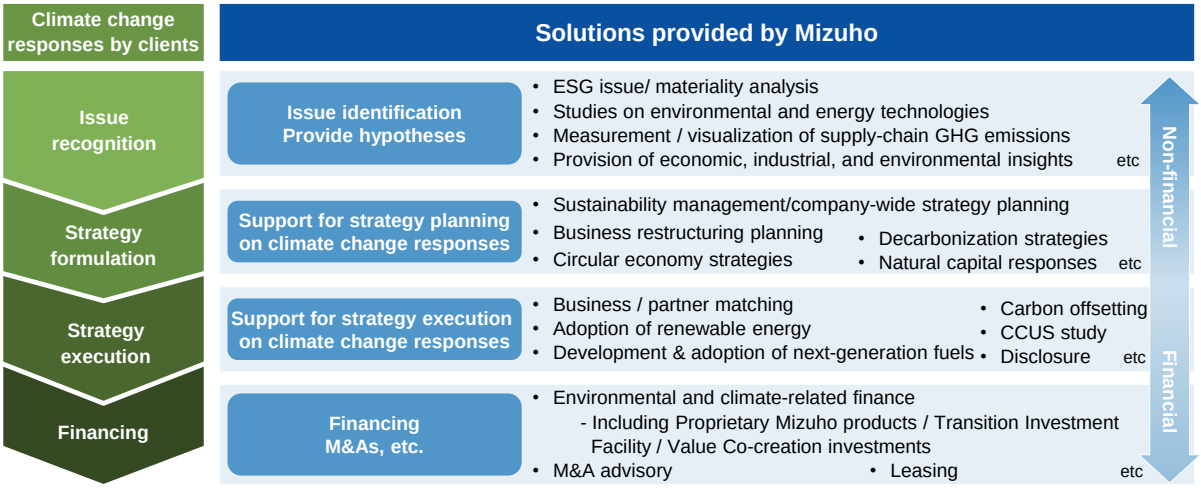
Mizuho Financial Group, Inc. (“Mizuho FG”) is a Japanese bank holding company that is the ultimate parent of the group (“Mizuho Group”), one of the largest financial groups in the world. Mizuho Group provides a broad range of financial services in domestic and overseas markets.

Mizuho recognizes that supporting our clients’ efforts to respond to climate change and transition to a decarbonized society is an important role for financial institutions to play. We are supporting our clients’ sustainability transformation (SX) by leveraging Mizuho’s strengths in expertise on industries and technologies, and capability of liaison within and outside of Mizuho and finance arrangement capability. Specifically, we aim to strengthen Japanese industries’ competitiveness and balance economic and social value by leading structural transformation of industries toward decarbonization through supporting our clients’ steady transitions toward 2030 and future-oriented clients’ actions.




In order to capture business opportunities associated with the transition to a decarbonized society, Mizuho provides consistent support to our clients from both financial and non-financial perspectives to restructure business portfolios, transform supply chains, and work

toward social implementation of next-generation technologies that will lead to future industrial structural transformations. Our support covers from issue recognition, strategy formulation, its embodiment and commercialization, to financing during the execution stage.

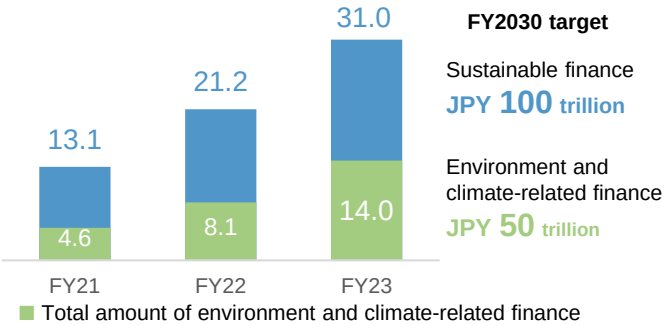



Mizuho believes that, especially with regard to sustainable finance, it is an important role for financial institutions to generate further money flows to meet the massive demand for climate change financing. Given this, Mizuho has set a sustainable finance target of JPY 100 trillion, of which JPY 50 trillion is earmarked for environment and climate-related finance (cumulative total over the period of FY2019 through to FY2030).

We have steadily built up a track record by assessing our clients' issues and needs accurately – arranging a total of JPY 31.0 trillion for sustainable finance between FY2019 and FY2023 (of which JPY 14.0 trillion was environment and climate-related finance). Mizuho has showed a strong presence in the sustainable finance area, holding the No.1 position for five successive years in league table of domestic publicly offered SDGs bonds. We will continue to proactively provide green/transition financing and risk money for practical applications of technologies to our clients who are taking on the challenge of decarbonization with us.

**Sustainable finance progress**

(in JPY trillions, total cumulated amount since FY2019)




**FY2030 target**

Sustainable finance
JPY 100 trillion

Environment and climate-related finance
JPY 50 trillion

**League table**

Global
No. 1 (Among Japanese banks)
Sustainable finance (loans)
Source: LSEG
(April 2023 to March 2024)

Japan
Five successive years No. 1
Publicly offered SDGs bonds
Source: Capital Eye
(April 2023 to March 2024)

The initiatives that Mizuho has participated in can be found at the link below:

https://www.mizuhogroup.com/sustainability/mizuhosustainability/management/initiative

# 2 Framework Overview

In order to further accelerate its environmental initiatives, Mizuho FG plans to issue Green Bonds to finance lending to qualifying environment-related projects ("Eligible Green Projects"). While the issuing entity will be Mizuho FG, the entity that will manage lending to Eligible Green Projects will be Mizuho Bank ("Mizuho BK"). All of the existing and new projects to be financed and/or refinanced through the net proceeds of the Green Bond must be eligible under the Use of Proceeds criteria below.

Green Bonds are dedicated bonds whose proceeds are ear-marked and will be exclusively applied to finance and/or refinance Eligible Green Projects. The Green Bond Framework has been prepared in line with the four pillars of the Green Bond Principles 2021 (with June 2022 Appendix 1) ("GBP") administered by the International Capital Market Association (ICMA). The GBP are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond.

## 2.1 Use of Proceeds

An amount equal to the net proceeds of Green Bonds will be used to finance and/or refinance existing and/or new Eligible Green Projects, in whole or in part, as defined by Mizuho FG's internal investment criteria.

Eligible Green Projects will meet ALL of the conditions below.

i) A project meets one or more of the Eligible Project Categories 1 to 9 below.

ii) A loan for a project has been financed by Mizuho BK within 24 months preceding the issue date of a relevant Green Bond, or will be newly financed on or after the issue date thereof.

| Project category | Project types | SDGs |
|---|---|---|
| 1. Renewable Energy | ・ Development, construction and operation of Renewable Energy<br>✧ The development, construction and operation of renewable energy facilities which generate | 7 |

| | | |
|---|---|---|
| | wind, solar, solar thermal, biomass energy[1] (restricted to sustainable feedstock and/or waste sources), geothermal energy[2], and small hydro facilities[3].<br>・ Development and production of technologies and equipment used for the above projects<br>・ Transmission and distribution of renewable energy<br>✧ Development and construction of any of the following operational electric grids:<br>(i) Projects for connecting renewable energy to power grids; or<br>(ii) Where renewable power accounts for 90% or more of the power supported or integrated by the project, including:<br>✓ Overground transmission/distribution lines, for example, overhead transmission lines, conductors, insulators, towers, and infrastructure assets such as buildings, fences, earth mats, and busbars.<br>✓ Transmission lines on high-voltage and/or extra-high-voltage interconnected systems.<br>✧ Distributed assets that are intended to reduce the curtailment of renewable energy into the grid (grid components) including fuses, circuit breakers, disconnectors, reactors, capacitors, transformers, voltage regulators, switchgears. | |

[1] Limited to sustainable feedstock and/or waste sources. For projects using wood or wood pellets, the feedstock will be limited to those provided by wood suppliers or power generators certified by the Forest Stewardship Council (FSC) or PEFC (Program for the Endorsement of Forest Certification). Projects using waste from palm oil operations will be limited to waste from palm oil suppliers that are certified by RSPO (Roundtable on Sustainable Palm Oil) or RSB (Roundtable on Sustainable Biomaterials). Non-waste materials will be limited to the feedstock having less than 100g CO2e/kWh of lifecycle GHG emissions intensity.

[2] Limited to the projects that have direct GHG emissions intensity of less than 100g CO2e/kWh

[3] Limited to 1) run-of-river power facilities which are without artificial reservoir or with low storage capacity, 2) projects that have lifecycle GHG emissions intensity of less than 50g CO2e/kWh (for facilities in operation by the end of 2019, less than 100g CO2e/kWh), 3) projects that have power density exceeding 10W/m² (for facilities in operation by the end of 2019, exceeding 5W/m²). For all new hydropower projects, an environmental and social impact assessment by a credible body is required per project and the absence of significant risks and controversies associated with the projects needs to be ensured.

| | | | |
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| 2. | Pollution Prevention and Control | ・ Waste recycling and waste-to-energy[4]<br>✧ The development, construction and operation of pollution prevention and control facilities, such as waste recycling and waste-to-energy power plants. The sources of energy will be household waste, commercial waste, or market waste which will not include plastics/rubber/tire-derived fuel (TDFs) to energy/fuel conversion, gas capture from operational landfills, and landfill gas capture for flaring.<br>・ Reduction of air emissions<br>・ Greenhouse gas control<br>・ Ocean-friendly chemicals and plastics-related sectors<br>✧ Projects to prevent plastics, chemicals or pollutants runoff in areas connected to rivers or coastal water basins<br>・ Sustainable shipping and port logistics sectors<br>✧ Projects for the development, manufacturing, construction, upgrading, operation and trading of technologies, products, infrastructure and systems for the control and reduction of contaminated water, waste and discharge by vessels, shipyards and ports. | 12 |
| 3. | Clean Transportation | ・ Investments in passenger cars, mass transport and other infrastructure<br>✧ Projects to develop, operate and upgrade public transportation facilities (non-fossil fuel based), infrastructure and technologies including expansion and improvements of rail transport, non-motorized transport (such as bicycles), multi-modal transport, and manufacturing of electric vehicles[5].<br>・ Maritime transport/port logistics | 11 |

[4] Where the waste is managed in accordance with the waste hierarchy. Projects for Waste-to-Energy will follow CBI criteria. Only facilities outside the EU are potentially eligible. Plant efficiency >= 25%; AND Bottom ash recovery; AND >= 90% recovery of metal from ash; AND Average carbon intensity of electricity and/or heat over the life of the plant <= waste management allowance; AND capacity of the plant does not exceed the calculated residual waste at any time in the plant's life.

[5] Projects such as electrified locomotives, trains, metro, interurban high-speed rail, mass rapid transit, and light rail transit (LRT) projects are limited to those with zero direct CO2 emissions. For freight rail, lines and operations where fossil fuels account for more than 25% of total freight volume (tkm) are excluded.

| | | |
|---|---|---|
| | ✧ Projects for the production of new low-carbon or zero-carbon vessels powered by electricity with an average GHG emissions intensity of less than 100g CO2e/kWh, biofuel[6] or green hydrogen/green ammonia.<br>✧ Project for the conversion of existing passenger and cargo vessels to low-carbon vessels as described above.<br>✧ Projects for marine infrastructure, including facilities to refuel biofuels, hydrogen, ammonia, methanol, etc., as well as infrastructure for alternative maritime power, such as electrical outlets, electrical distribution and control systems. | |
| 4. Green Buildings | ・ Buildings which have received or will receive during the life of the Green Bond at least one of the following classifications. Net proceeds of the Green Bond may be allocated towards new and existing loans from Mizuho BK to eligible green buildings with certifications as defined below, including the ones owned by J-REITs (Japanese Real Estate Investment Trusts)[7]<br>✧ LEED (Leadership in Energy and Environmental Design): LEED Platinum or Gold<br>✧ BREEAM (Building Research Establishment Environmental Assessment Method): BREEAM Outstanding or Excellent<br>✧ CASBEE (Comprehensive Assessment System for Built Environment Efficiency): CASBEE S Rank or A Rank<br>✧ DBJ Green Building Certification: DBJ Green Building 5 Star or 4 Star<br>✧ BELS (Building-Housing Energy-efficiency Labelling System) (2016 version): BELS 5 Star or 4 Star<br>✧ BELS (Building-Housing Energy-efficiency Labelling System) (2024 version): (Non-residential) Level 4 or higher, (Residential with renewable energy facilities) Level 4 or higher, (Residential without renewable energy facilities) Level 3 or higher<br>✧ ZEB, Nearly ZEB, ZEB Ready and ZEB Oriented / ZEH, Nearly ZEH, ZEH Ready and ZEH Oriented | 9 |

[6] Biomass energy criteria as defined in the Renewable Energy category of this framework

[7] Allocation amounts to eligible green buildings owned by J-REITs may be calculated based on pro-rata share of eligible green buildings' acquisition cost.

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| | ( all of which represents the same or higher level of performance compared to BELS 5 Star)<br>✧ A building that aligns with a regional proxy (numerical scale) as determined by the Climate Bonds Initiative (CBI) for commercial buildings<br>・ Building upgrades, including energy-efficiency investments and/or building retrofits in line with a low-carbon trajectory based on the duration of the bond, as set out in the Low Carbon Buildings Standard as determined by the CBI (reduction of CO2 emissions by at least 30% to the baseline) | |
| 5. Energy Efficiency | ・ End-user energy efficiency projects that result in a minimum 30% energy efficiency improvement including:<br>✧ Projects that have obtained a third-party certification (especially, ENERGY STAR) for environmental and energy performance in the purchase, installation and retrofitting of energy-efficient technologies, products or equipment that do not use motors or are powered by electricity (not by fossil fuels).<br>✧ Projects for upgrading energy-efficient technologies, products or hardware systems, such as fossil-fuel-free LED, smart lighting solutions, sunlight controls, Building Management Systems (BMS), air conditioning and heating systems. | 7 |
| 6. Sustainable Water and Wastewater Management | ・ Projects which result in at least a 20% energy efficiency improvement or a 20% water efficiency improvement through reduced leakage<br>・ Water supply<br>✧ Projects for the development, construction, acquisition, operation and upgrading of water supply infrastructure with water-saving effects.<br>✧ Projects for the development, construction, acquisition, operation and renovation of desalination plants[8].<br>✧ Projects for the development, manufacturing and trading of products and technologies to increase the supply and access to potable / drinking water. | 6 |

[8] The desalination will be limited to the projects which 1) have an appropriate waste management plan for brine disposal at the start of the project, 2) are powered by renewable energy or electricity with an average carbon intensity of 100g CO2e/kWh or less, 3)Integrated Water and Power Plants (IWPP) are excluded.

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| | ✧ Projects for the development, manufacturing and trading of technologies, equipment and systems that reduce and/or monitor water footprints.<br>・ Water sanitation<br>✧ Projects for the development, construction, operation and upgrading of water treatment infrastructure.<br>✧ Projects for the development and manufacturing of technologies, products and systems that enhance the efficiency and effectiveness of water treatment infrastructure. | |
| 7. Environmentally Sustainable Management of Living Natural Resources and Land Use | ・ Forest products: Growing and/or purchase of:<br>✧ Products or projects certified by the Forest Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC).<br>・ Agriculture: Growing and/or purchase of:<br>✧ Products or projects certified by Rainforest Alliance, or USDA Organic.<br>・ Land preservation:<br>✧ Preservation and/or restoration of native forests and high-conservation value forests.<br>✧ Soil remediation.<br>・ Value chains for fisheries, aquaculture and seafood products<br>✧ Land-based aquaculture production.<br>✧ Research, development, operation and trading related to cultivation businesses of algae and marine micro-organisms.<br>✧ Fisheries and aquaculture that meet the Marine Stewardship Council (MSC) certification standard, Aquaculture Stewardship Council (ASC) certification standard, Marine Eco-Label Japan (MEL) certification standard, or investments to meet the above standards.<br>✧ Production and trading of marine products with MSC, ASC or MEL labels.<br>✧ Distribution, processing or retailing businesses that meet CoC certification standard of MSC, ASC or MEL certification standard, or investments to meet the above standards. | 14, 15 |
| 8. Terrestrial and Aquatic Biodiversity Conservation | ・ Biodiversity Conservation<br>✧ Conservation and/or restoration of biodiversity and valuable natural habitats. | 14, 15 |

| | | |
|---|---|---|
| | ✧ Conservation and/or restoration of biodiversity in urban areas.<br>・ Conservation and restoration of marine and other ecosystems<br>✧ Development, operation and trading of services, technologies and systems for the conservation, improvement and restoration of marine, coastal and river ecosystems. | |
| 9. Circular Economy Adapted Products, Production Technologies and Processes | ・ Development, construction and operation of hydrogen and ammonia supply chain establishment (manufacturing, storage, transportation, and usage)<br>✧ The carbon intensity standards for the manufacturing of hydrogen and ammonia are set at Well to Gate: hydrogen at 3.4 kg-CO2e/kg-H2 and ammonia at 0.87 kg-CO2e/kg-NH3 (based on the requirements for “low-carbon hydrogen, etc” as defined by Japan's Hydrogen Society Promotion Act). For the avoidance of doubt, "low-carbon hydrogen etc." includes hydrogen / ammonia produced via electrolysis from renewable energy, and hydrogen / ammonia produced via steam methane reforming coupled with CCUS (Carbon Capture Utilization and Storage).<br>・ Development and production of technologies and equipment used for the above projects<br>・ Development of technologies, construction and operation of facilities and transportation of captured CO2 related to DAC (Direct Air Capture) and CCUS.<br>✧ Only projects with capture efficiency design of 90% or higher are eligible. Projects for the purpose of Enhanced Oil Recovery activities are excluded.<br>✧ Development and production of technologies and equipment used for the above projects | 13 |

For long-dated green assets that are refinanced by proceeds of multiple Green Bonds, Mizuho FG will disclose the age and remaining useful life of the assets to an independent party prior to the initial issuance of the Green Bonds from this Green Bond Framework and update the information when such independent party provides an annual review as described below. The information provided will be supported by a review from such independent party to confirm the continuous environmental benefits of the long-dated assets.

For clarification purposes, the following are excluded from the Green Bond Framework: fossil fuel based assets, fossil fuel based transportation/infrastructure and transportation with the main objective of transporting fossil fuel, defense and security, palm oil, wood pulp, nuclear power generation, coal-fired power generation as well as all mining and tobacco sectors.

Regarding our Environmental and Social Management Policy for Financial Activities to mitigate and avoid adverse impacts of financing and investment on the environment and society, please see the link below for details:

https://www.mizuhogroup.com/sustainability/business-activities/investment

## 2.2 Process for Project Evaluation and Selection

Eligible Green Projects are evaluated and selected based on compliance with the Eligibility Criteria above. Eligible Green Projects are identified and selected via a process that involves participants from various functional areas including Mizuho BK's Real Estate Finance Department, Project Finance Department and Sustainable Products Promotion Department, Mizuho FG's Corporate & Investment Banking Coordination Department, Global Markets Coordination Department and Financial Planning Department.

Process to mitigate environmental and social risk

Mizuho Group leverages its financial intermediary and consulting capabilities in order to proactively develop and offer financial products and services which support the environmental initiatives of corporations and other clients. In doing so, we aim to maximize positive impacts and avoid or mitigate negative impacts on the environment. We make decisions on financing and investments after examining the recognized risks based on our Environmental and Social Management Policy for Financial Activities, and with clients, we discuss (engage) medium- to long-term environment and social issues. We will revise our policy as needed.

For all project finance related business, Mizuho BK's Project Finance Department or other relevant departments evaluate financial viability of projects in accordance with internal credit evaluation process. For any large-scale development projects which have the potential to impact the natural environment and local communities, the Sustainable Development Office of Mizuho BK's Sustainable Products Promotion Department (Sustainable Development Office)

reviews projects and conducts the required due diligence in light of the Equator Principles, and categorizes projects as Category A, B or C[9] based on its internal environmental and social risk assessment process. Such categorization is based on the environmental and social categorization process of the International Finance Corporation, complying with the Equator Principles. As a part of this process, Mizuho BK evaluates a project for minimal, limited or significant potential adverse environmental and social impact. For each project where limited or significant risk is identified, Mizuho BK's internal process requires the Sustainable Development Office to work in partnership with its clients to assess and manage these environmental and social risks and impacts in order to ensure that a project is implemented with full consideration of its impact on the natural environment and local communities.

For Eligible Project Category 4(Green Buildings), a project is certified to a certain level such as by "LEED", "BREEAM", "CASBEE", "DBJ Green Building Certification", "BELS" or aligns with CBI criteria.

Mizuho's responsible financing and investment can be found at the link below:
https://www.mizuhogroup.com/sustainability/business-activities/investment

Selection of Eligible Green Projects

As for the selection process of Eligible Green Projects, based on the list of finances offered by Mizuho BK, Mizuho FG's Corporate & Investment Banking Coordination Department and others draft the list of Eligible Green Projects. Candidate projects, that are suited to any of Project Categories 1 to 9 above, and those that meet condition ii) above will be proposed by Mizuho FG's Corporate & Investment Banking Coordination Department and others. Finally, Mizuho FG's Global Markets Coordination Department and Financial Planning Department will select Eligible Green Projects from the candidate projects list.

[9] According to the Equator Principles, Category A projects are defined as projects with potential significant adverse environmental and social risks and/or impacts that are diverse, irreversible or unprecedented. Category B projects have potential limited adverse environmental and social risks and/or impacts that are few in number, generally site specific, largely reversible and readily addressed through mitigation measures. Category C projects have minimal or no adverse environmental and social risks and/or impacts.

## 2.3 Management of Proceeds

An amount equal to the net proceeds from the sale of a specific issue of Green Bond will be loaned to Mizuho BK and allocated by Mizuho BK to the financing and/or refinancing of existing and/or new Eligible Green Projects. So long as that tranche of Green Bond remains outstanding, Mizuho FG will keep the list of all Eligible Green Project loans based on Mizuho BK's internal loan data system and its output, and such records of that list will show an amount equal to the net proceeds from the issuance of such bond as allocated to the assets that meet Mizuho FG's internal investment criteria for Eligible Green Projects. Pending the allocation of the net proceeds of such bond to finance Eligible Green Projects, the net proceeds will be invested in overnight or otherwise short-term financial instruments and will be allocated to Eligible Green Projects as soon as practicably possible.

Payment of principal of and interest on the Green Bond will be made from Mizuho FG's general funds and will not be directly linked to the performance of any Eligible Green Projects.

Mizuho FG will review and update the Eligible Green Projects to which the net proceeds of the Green Bond are allocated on an annual basis. Any proceeds allocated to projects that have been sold, prepaid, amortized or otherwise become ineligible shall be reallocated to other Eligible Green Projects.

## 2.4 Reporting

Allocation Reporting

During the term of any Green Bonds, Mizuho FG will provide and keep readily available, on a designated website[10], information on the allocation of the net proceeds of those bonds, to be updated at least annually until full allocation and as necessary thereafter in the event of new developments. This information will include:

(i) the allocation of the net proceeds of those bonds to Eligible Green Projects, brief description of the Eligible Green Projects funded, current funded amounts, and funding dates, and

[10] https://www.mizuhogroup.com/sustainability/environment/business/greenbond

(ii) assertions by management that the net proceeds of those bonds are invested either in qualifying Eligible Green Projects or in overnight or other short-term financial instruments.

Independent party will provide an annual review on the allocation of the use of proceeds as well as impact reporting to review that allocation and reporting is aligned with the framework.

Environmental Impact Reporting

Mizuho FG intends to report, on a best efforts basis, on the impact of Eligible Green Projects, to be updated at least annually until full allocation and as necessary thereafter in the event of new developments. All impact reporting (as and when feasible and available) will be disclosed on an aggregate basis, by eligible Project Category.

Impact reporting Exemplary Metrics

| No | Project Category | Impact reporting Exemplary Metrics |
|---|---|---|
| **1** | Renewable Energy | ・Tonnes of CO2 equiv. reduced/avoided p.a.<br>・Annual energy generation |
| **2** | Pollution Prevention and Control | ・Amount of waste recovered, reduced, or recycled<br>・Reuse and recycling rates<br>・Percentage of change in the amount of waste generated<br>・Water pollution abatement in m3 and %<br>・Air pollution abatement in m3 and % |
| **3** | Clean Transportation | ・Tonnes of CO2 equiv. reduced/avoided p.a.<br>・Amount of air pollutants reduced<br>・Total distance of infrastructure |
| **4** | Green Buildings | ・Number and level of green building certifications acquired |
| **5** | Energy Efficiency | ・Tonnes of CO2 equiv. reduced/avoided p.a.<br>・Annual energy savings<br>・Number and types of environmental certifications obtained<br>・Number of energy-saving equipment and products installed |
| **6** | Sustainable Water and Wastewater Management | ・Annual water savings in m3 and %<br>・Tonnes of CO2 equiv. reduced/ avoided p.a. by water savings |

| | | |
|---|---|---|
| | | ・The number of people benefiting from water management |
| **7** | Environmentally Sustainable Management of Living Natural Resources and Land Use | ・Number and types of environmental certifications obtained |
| **8** | Terrestrial and Aquatic Biodiversity Conservation | ・Number and types of environmental certifications obtained<br>・The area of land covered by the project and the rate of increase in the area of conservation |
| **9** | Circular Economy Adapted Products, Production Technologies and Processes | ・Tonnes of CO2 equiv. reduced/avoided p.a.<br>・Annual energy generation<br>・Number of DAC/CCUS projects supported and the associated annual GHG emissions stored (tCO2e) |

# 3 External review

Mizuho FG has obtained a Second Party Opinion by Moody's Japan, to confirm the transparency and robustness of Mizuho Financial Group Green Bond Framework. The Second Party Opinion will be published on Mizuho FG's webpage.