

# NTT Group Green Bond Framework

## Introduction

As “Your Value Partner,” NTT Group has worked to resolve social issues through business activities and has contributed to creating a safe, secure and sustainable society based on “NTT Group CSR Charter” which is our group policy for environmental and CSR activities. For NTT Group, which uses about 1% of Japan’s total power generation (FY2015) for business activities, environmental issue is one of the most important social issues. NTT Group has contributed to achieve sustainable society by offering products and services utilizing ICT and we believe further efforts and new approaches are becoming increasingly important at a time when environmental issues on a global scale have become more serious. NTT Group has established Green Bond Framework as part of such efforts. NTT Group intends to utilize the funds raised through the green bond issuance for sustainable growth by resolution of social issues in the framework.

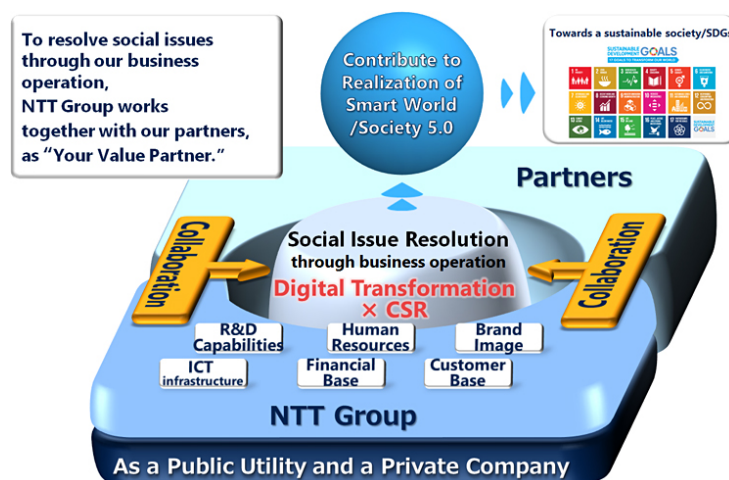
## 1. Vision of NTT Group

To resolve social issues through our business operation, NTT Group works together with our partners, as “Your Value Partner.”

Various social problems have emerged, such as population increase and resource and water shortage around the world, and a declining birth rate and aging population in Japan. In order to resolve these problems, it has become necessary in all circumstances to advance digital transformation utilizing ICT (information communication technology).

NTT Group will aim to resolve social issues by means of advancing digital transformation, by utilizing its various management resources and capabilities, such as research and development, ICT infrastructure and personnel, while also collaborating with its partners.

NTT Group believes that the resolution of social issues will contribute to achieving a smart society utilizing ICT and to the sustainable development goals (SDGs)<sup>2</sup> proposed by the United Nations.

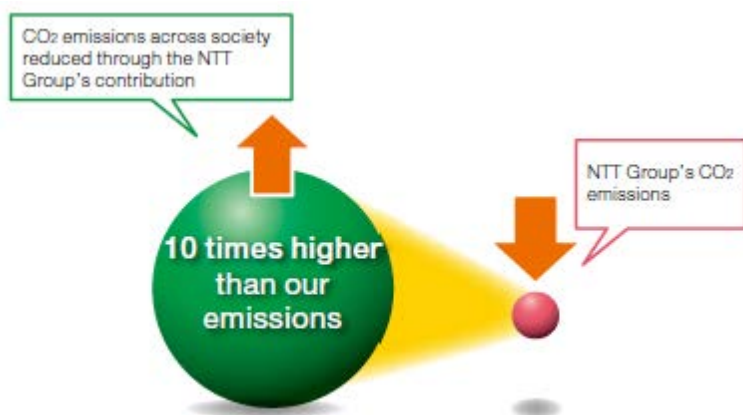


## 2. Commitment to Environmental Issues

Reducing emissions of CO<sub>2</sub> and other greenhouse gases, which are the principal cause of climate change, is an important social issue. Additionally, in recent years, it has also been considered important to devise adaptation measures to prepare for the effects of climate change. There is growing demand for conserving energy given the rising amounts of electricity use associated with the development of ICT. At the same time, ICT is expected to contribute to energy savings, the reduction of CO<sub>2</sub> emissions across society, and the provision of adaptation measures. To usher in a low carbon future, NTT Group will endeavor to curb CO<sub>2</sub> emissions from its own business activities. Also, we will contribute to the reduction of CO<sub>2</sub> emissions across society and adaptation to climate change by striving to develop and disseminate the most advanced ICT services and technologies. In order to realize such low-carbon society, NTT Group has set numerical goals as follows:

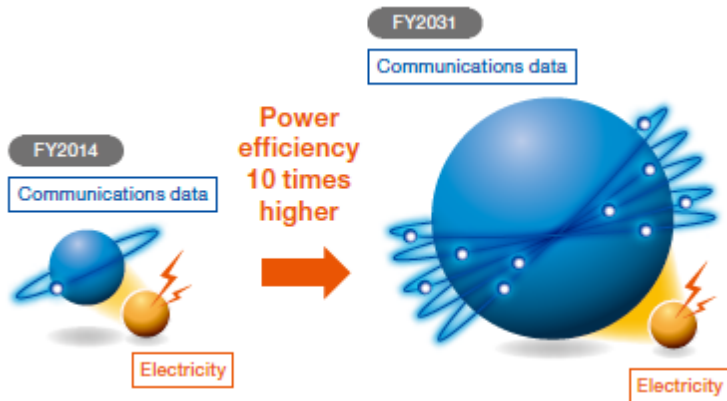
### ① Reduction of CO<sub>2</sub> emissions across Society

NTT Group has set the goal of increasing its contribution to reducing the CO<sub>2</sub> emissions of society by at least 10 times more than the NTT Group's own emissions, by fiscal year 2030. This is a goal to control CO<sub>2</sub> emissions from business activities and contribute to the reduction of the total CO<sub>2</sub> emissions from society by providing services and technologies. As the major action items, the Group will provide services and technologies to help reduce the CO<sub>2</sub> emissions of society, promote research and development that contributes to the mitigation of climate change, and investment in renewable energy projects, environmentally friendly (green) buildings, etc.



### ② Improvement of power efficiency

For the telecommunications businesses including the operation of data centers, NTT Group has set out the target of improving the power efficiency per data transmission by at least ten times compared to that of fiscal 2013 by fiscal 2030. As the major action items, the Group is promoting investment in improving operational efficiency by digital transformation, implementing power-saving measures for communication equipment as well as highly efficient energy-saving data centers.



In order to further strengthen environmental energy initiatives, NTT Group has formulated its new Environmental Energy Vision "Zero Environmental Impact" in fiscal 2020, and set a target to increase the proportion of the Group's renewable energy usage to 30% or higher by FY2030. Based on these efforts, we have shown our commitment to Science Based Targets-initiative<sup>1</sup> to set CO<sub>2</sub> emission reduction targets that are consistent with the levels required by the Paris Agreement.

③ Improving the utilization rate of renewable energy

Strengthen the Group's energy business and promote the use of renewable energy for our own business activities, and achieve our own use of renewable energy to at least 30% by fiscal 2030.

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<sup>1</sup> SBT (science-based targets): "setting targets in line with science". Despite targets for reducing CO<sub>2</sub> emissions have been submitted by countries around the world at the COP21 (Paris Agreement), the global average temperature in 2100 will increase more than 2°C compared to the pre-industrial level, even if all targets are added up. SBT is what SBTi (SBT Initiative: CDP, Global Compact, WRI, WWF) supports and certifies to ensure that companies around the world review their reduction targets and keep the temperature rise below 2°C.

## **Green Bond Framework**

The framework has been established for further commitment, including financial commitment, and stronger promotion to achieve sustainable society.

NTT Group and its affiliates are allowed to issue green bonds in NTT Group's Green Bond Framework.

The Green Bond Framework provides guidelines for the following four requirements based on the Green Bond Principles (GBP) 2018 by International Association of Capital Markets (ICMA) and the Green Bond Guidelines (2020) by Ministry of the Environment.

1. Use of proceeds
2. Process for project evaluation and selection
3. Management of Proceeds
4. Reporting

### **1. Use of proceeds**

The proceeds of the green bonds are planned to be allocated to finance new or existing projects that meet the following eligibility criteria. Existing facilities, excluding green buildings, must have started operation within 24 months prior to the issue date of the green bond to qualify.

#### ① Highly efficient and power-saving data centers

GBP Project Category: Energy Efficiency

Data centers are the infrastructure to support ICT. NTT Group already owns about 200 data centers, and more investment is expected to be made. Data centers, on the other hand, consume a lot of power, so improving efficiency and power saving performance of data centers are essential to achieve a low carbon society. The proceeds will be allocated to investment in the construction, refurbishment, acquisition and operations of data centers that meet the following criteria and improve power efficiency and reduce environmental impact of business operations:

<Eligibility Criteria>

- PUE (Power Usage Effectiveness) under 1.5

#### ② Green Building

GBP Project Category: Green Building

The proceeds will be allocated to investments and expenditures for the construction, modification, and acquisition of properties that were confirmed to meet any of the following eligibility criteria within 24 months prior to the issue date of the green bond, and properties that are planned to meet with the criteria in the future.

<Eligibility Criteria>

- LEED-BD+C (Building Design and Construction) or LEED-O+M (Building Operations and

Maintenance) certified: Platinum, Gold or Silver

- CASBEE building (New, existing or modified) or CASBEE real estate (including CASBEE by local governments) evaluation/certification: S, A or B+
- BELS (Building-Housing Energy-efficiency Labeling System): Three stars or above
- DBJ Green Building Certificate: Three stars or above
- Power-saving evaluation based on the Tokyo Building Environment Plan: AAA for both thermal insulation property of building and power-saving property of facility system

### ③ Renewable Energy

GBP Project Category: Renewable Energy

The proceeds will be allocated to finance expenditures on investment in the construction, refurbishment, acquisition and operation for the following NTT Group's renewable energy projects:

#### <Eligibility Criteria>

- Wind power generation projects: Project with output of 10,000 kW or over should have already completed the environment assessment defined by the Environmental Impact Assessment Law. Project with output of less than 10,000 kW shall undergo an environment assessment as required. When an environmental impact assessment needs to be processed by a local government of the area where operations are conducted, such should be properly executed.
- Solar photovoltaic generation projects: Project with an installed capacity of 40 MW or over should have already completed the environment assessment defined by the Environmental Impact Assessment Law. A project with an installed capacity of less than 40 MW shall undergo an environment assessment as required. When an environmental impact assessment needs to be processed by a local government of the area where operations are conducted, such should be properly executed.
- Geothermal power generation projects: CO<sub>2</sub> emissions shall be 100g CO<sub>2</sub>/kWh or less. Project with output of 10,000 kW or over should have already completed the environment assessment defined by the Environmental Impact Assessment Law. Project with output of less than 10,000 kW shall undergo an environment assessment as required. When an environmental impact assessment needs to be processed by a local government of the area where operations are conducted, such should be properly executed.
- Biomass power generation projects: Fuel to be used should be waste-derived (excluding palm oil waste). When an environmental impact assessment needs to be processed by a local government of the area where operations are conducted, such should be properly executed.
- Hydroelectric power generation projects: The output shall be less than 22.5 MW, or the product should be a run-of-river type. When an environmental impact assessment needs to be processed by a local government of the area where operations are conducted, such should be properly executed.

## **2. Process for project evaluation and selection**

Projects that may be financed by the green bond are identified by the operating company that executes each eligible project based on the aforementioned eligibility criteria. Evaluation and selection of eligible projects is done by way of discussion and consideration of the conformity to the NTT Group CSR Charter, which is the basic guideline for the Group, by the Finance Department of NTT Finance Corporation and Nippon Telegraph and Telephone Corporation (NTT). The director in charge of the Finance Department of NTT Finance Corporation makes the final decision.

In the selection of target projects, the Group confirms they meet eligibility criteria and whether they consider the mitigation of environmental and social risks as follows:

- Conformity to environmental laws, regulations, etc., required by the central and local governments of the area where the operation site exists, and environmental impact surveys as necessary
- Provision of a thorough explanation of business to local communities
- Implementation of proper toxic waste handling in accordance with laws related to waste treatment and cleaning, as well as proper storage, management, and safe and adequate disposal of equipment that uses or is contaminated by PCB in compliance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Waste
- Execution of risk evaluations of suppliers based on the Guidelines for CSR in Supply Chain. Requesting of suppliers' abidance to the Guidelines for Green Procurement and the Energy Efficiency Guidelines

## **3. Management of Proceeds**

NTT Finance Corporation, which is responsible for the group finance function of NTT Group, centrally controls the proceeds of the green bonds issued based on the Green Bond Framework to finance eligible projects. The Finance and Accounting Department of NTT Finance Corporation manages the proceeds and allocates money to eligible projects using the internal control system, and tracks and manages the fund every quarter. Until allocation, the equivalent amount of the proceeds are managed as cash or cash equivalent. The allocation is planned to be completed within 24 months from issuance.

## **4. Reporting**

### **① Allocation reporting**

Until proceeds are fully allocated, the Group annually reports on the status of proceeds allocation to eligible projects on its group website or integrated report.

The Group plans to report the following items where feasible:

- The status of allocation of the green bond issuance amount to eligible projects
- Overview of eligible projects funded (including the age of the assets and remaining useful life)
- The amount allocated and unallocated to eligible projects
- The share of finance and refinance
- When there is an unallocated portion, the planned allocation period

The first report on the allocation status of proceeds is scheduled to be provided within a year from the issuance of the green bonds. Should a significant change occur in the status of the fund following allocation of proceeds, such will be disclosed in a timely manner.

In addition, when refinancing an asset that needs to be maintained over a long period of time through the issuance of multiple green bonds, the elapsed life, remaining useful life and refinancing amount of the asset will be disclosed at the time of issuance.

② Impact reporting

As long as there is an outstanding balance of green bonds, the Group will annually report on the effect that the eligible projects have on the environment.

The following items will be reported individually and as a category total.

Eligible project	Impact reporting item
① Data center	<ul style="list-style-type: none"><li>• Volume of CO<sub>2</sub> emissions</li></ul>
② Green building	<ul style="list-style-type: none"><li>• Property name of green building, obtained certification level, and the timing of acquisition and reacquisition</li><li>• Volume of CO<sub>2</sub> emissions</li></ul>
③ Renewable energy	<ul style="list-style-type: none"><li>• Power generation capacity/actual volume (GWh)</li><li>• Volume of CO<sub>2</sub> emissions reduced (t- CO<sub>2</sub>)</li></ul>

Appendix

Companies executing eligible projects

Use of proceeds	Companies
①	NTT Global Data Centers Corporation
②	NTT Urban Development Corporation
③	NTT Anode Energy Corporation

Companies may be added in the future following selection