

Second-Party Opinion

NTT Group Green Bond Framework



Evaluation Summary

Sustainalytics is of the opinion that the NTT Group (NTT Group and its affiliated companies, hereinafter, “NTT Group” or the “Group”) Green Bond Framework (The “Framework”) aligns with the four core components of the Green Bond Principles 2018 (GBP). This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds, 1) Energy Efficiency, 2) Green Buildings, and 3) Renewable Energy, are aligned with those recognized by the GBP. Sustainalytics considers that the Group's eligible projects will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDGs 7 and 9.



PROJECT EVALUATION / SELECTION NTT Group's affiliated companies will respectively evaluate and select eligible projects based on eligible criteria, and the Finance Department of NTT Finance Corporation and Nippon Telegraph and Telephone Corporation (NTT) will select projects based on the NTT Group CSR Charter. The director in charge of the Finance Department of NTT Finance Corporation will make the final decision. The Group's process to evaluate and select projects is aligned with market practice.



MANAGEMENT OF PROCEEDS The proceeds of the green bond will be managed by NTT Finance Corporation. The Finance Department of NTT Finance Corporation will track and manage the allocated and unallocated amounts of the proceeds of the green bond using an internal management system. For unallocated proceeds, the equivalent amount of proceeds is to be managed as cash or cash equivalent. The Group's proceeds management process is aligned with market practices.



REPORTING NTT Group is committed to disclosing allocation reporting and impact reporting on its Group website or an integrated report annually. Allocation reporting will include the allocation status, an overview of allocated projects, amount allocated and unallocated, and shares of financing and refinancing. Impact reporting will include qualitative environmental performance indicators including green building certification and level received, in addition to quantitative environmental performance indicators including CO2 emissions of data center and green building projects as well as CO2 emissions avoided of renewable energy projects. Sustainalytics views the Group's reporting as aligned with market practice.

Evaluation date	June 3, 2020
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Issuer Location	Tokyo, Japan
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Alignment with Japan's Green Bond Guidelines 2020

Sustainalytics is of the opinion that the Framework is in line with Japan's Green Bond Guidelines 2020. The guidelines communicate what an issuer is expected to do to issue a credible green bond. Sustainalytics assessed the alignment between the Framework and the 'should' items outlined in the Japan's Green Bond Guidelines 2020.

Introduction

NTT Group consists of Nippon Telegraph and Telephone Corporation (NTT), which was established based on the Act on Nippon Telegraph and Telephone Corporation, etc. (the NTT Act) in 1985, and its affiliated companies. As a holding company of NTT Group, NTT executes management strategies, and promotes research and development for the entire group, and the affiliated companies mainly operate mobile communications, regional telecommunications, long-distance/international telecommunications, data communications businesses, etc. Major NTT subsidiaries include NTT DOCOMO, INC., Nippon Telegraph and Telephone East Corporation, Nippon Telegraph and Telephone West Corporation, NTT Ltd., NTT Communications Corporation, NTT DATA CORPORATION, etc. The head office of NTT is located in Tokyo.

NTT Group has developed the NTT Group Green Bond Framework (the “Framework”) under which it intends to issue green bonds and use the proceeds to finance and/or refinance, projects that generate environmental benefits. The Framework defines eligibility criteria in the following areas:

1. Energy Efficiency
2. Green Buildings
3. Renewable Energy
 - a. Wind power generation
 - b. Solar photovoltaic generation
 - c. Geothermal power generation
 - d. Biomass power generation
 - e. Hydroelectric power generation

NTT Group engaged Sustainalytics to review the Framework, dated May 2020, and provide a second-party opinion on the Framework’s environmental credentials and its alignment with the GBP¹ and Japan’s Green Bond Guidelines 2020.² A summary overview of the Framework has been provided in Appendix 1.

Scope of work and limitations of Sustainalytics Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics independent³ opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the GBP and Japan’s Green Bond Guidelines 2020;
- The credibility and anticipated positive impacts of the use of proceeds;
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.3.2, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of NTT’s Finance Department to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. NTT Group representatives have confirmed (1) they understand it is the sole responsibility of NTT Group to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and NTT Group.

¹ The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

² Ministry of the Environment, Japan, “Green Bond Guidelines, 2020”, at: http://www.env.go.jp/policy/guidelines_set_version_with%20cover.pdf

³ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the intended allocation of proceeds but does not guarantee the realised allocation of the bond proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that NTT Group has made available to Sustainalytics for the purpose of this SPO.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the NTT Group Green Bond Framework

Sustainalytics is of the opinion that the Framework is credible and impactful, and aligns with the four core components of the GBP 2018. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
 - The eligible categories for the use of proceeds — 1) Energy efficiency, 2) Green buildings and 3) Renewable energy — are recognized by the GBP as project categories with clear environmental impact. NTT Group has set targets for the contribution to the reduction of CO2 emission in society as a whole by its business activities, and the use of proceeds will further promote the Group's goal of reducing the environmental impact of the Company and society in Japan. Please see Section 3 for Sustainalytics' assessment on impact of the use of proceeds.
 - NTT Group intends to allocate the proceeds for construction, refurbishment, acquisition and operation of data centers that has energy efficiency. In the Framework, the Group established the eligibility criteria of the projects to be less than 1.5 of Power Usage Effectiveness (PUE)⁴, which is the ratio of total power used to the power used by IT equipment within data centers. Sustainalytics positively views the setting of the threshold by the Group, given that the market considers the threshold assures a certain energy efficiency of a data center.
 - The Framework defines the category of green buildings, and NTT Group intends to allocate the proceeds in the expenses for construction, refurbishment and acquisition of green buildings that have received or will receive a green building certification from credible third parties, as well as for its relevant investments. For the selection of use of proceeds, the Group will use green building certification programs from credible third parties, which are Platinum, Gold or Silver of LEED-BD+C and LEED-O+M, S, A or B+ of CASBEE buildings (for New building, Existing building, and Renovation) and CASBEE real estate, three stars or above of BELS and three stars or above of DBJ Green Building. While Sustainalytics considers that these certification programs are robust and credible and the inclusion of top three levels of certification has environmental positive impact, it also acknowledges that investors generally prefer the proceeds to be financed the buildings that have received the top two levels of the programs. (Please refer to Appendix 2 for an overview and comparison of the green building certification scheme.) In addition to the eligibility criteria above, the Framework has defined the eligibility criteria for buildings that receives B+ rank or above for the local government-version CASBEE⁵ and AAA for the Tokyo Building Environment Plan⁶ (both the power-saving property of the facility system

⁴ PUE = (Total Facility Power) / (IT Equipment Power). A PUE closer to 1.0 is considered to have better energy efficiency.

⁵ Information on the CASBEE evaluation by the local governments of 24 cities is available at http://www.ibec.or.jp/CASBEE/local_cas.htm

⁶ For newly built, added to, and modified buildings whose total floor space exceeds 2,000 m², the Tokyo Building Environment Plan System demands the submission of a self-evaluation of the environmental measures (rationalization of energy use, the appropriate use of resources, conservation of the natural

- and the thermal insulation property of building). Since these programs are based on self-evaluation, which may weaken the strictness and credibility of the environmental positive impact, Sustainalytics encourages the Group to allocate the proceeds in the buildings that obtains a green building certification assessed by a third party to further strengthen the Framework.
- The Group intends to allocate the proceeds in the expenses related to the construction, refurbishments and operation of renewable energy (solar, wind, geothermal, biomass, and hydroelectric power generation). The Framework defines the thresholds for the use of proceeds by power source. Sustainalytics views that the thresholds set for each power source by the Group mitigate environmental and social risks, and are aligned with market practices. (The emission volume of greenhouse effect gases (GHG) of a geothermal facility is 100 gCO₂/KWh or less, the biomass raw material to be used for biomass power generation is waste-derived which excludes non certified palm oils, and the capacity of hydroelectric power generation is less than 22.5 MW.)
 - NTT Group has defined a lookback period of 24 months for the refinancing of existing projects in the Framework.
- Project Evaluation and Selection:
 - The evaluation and selection of the projects will be conducted by NTT Group's affiliated companies which operate those projects, the Finance Department of NTT Finance Corporation, and NTT. Those affiliated companies which include NTT Global Data Center Corporation (energy efficient data centers), NTT Urban Development Corporation (green buildings), and NTT Anode Energy Corporation (renewable energy) will evaluate and select the projects based on eligibility criteria. The Finance Department of NTT Finance Corporation and NTT will select the projects based on, its basic guidelines, NTT Group CSR Charter. The director in charge of the Finance Department of NTT Finance Corporation will make the final decision. Sustainalytics considers the Group's project evaluation and selection process to be aligned with market practice.
 - Management of Proceeds:
 - The proceeds of NTT Group's green bond will be managed by NTT Finance Corporation. The Finance Department of NTT Finance Corporation will track and manage the allocated and unallocated amounts of the proceeds using an internal management system every quarter. NTT Group intends to allocate the proceeds within 24 months from issuance. For unallocated proceeds, the equivalent amounts are managed as cash or cash equivalent. Sustainalytics views the Group's manage proceeds as aligned with market practice.
 - Reporting:
 - NTT Group intends to annually disclose allocation reporting and impact reporting on its Group website or an integrated report. It is also committed that, when a significant change occurs in the status of the fund after proceeds are fully allocated, the Group will disclose such in a timely manner.
 - Allocation reporting which will be conducted until the proceeds are fully allocated, will include the status of the allocation to eligible projects, an overview of the allocated eligible projects (including the age of the assets and remaining useful life), the allocated and unallocated amounts of the proceeds, the share of finance and refinance, and the planned period for the full amount of the proceeds to be allocated if there is any unallocated amount. Impact reporting will be conducted until the redemption of the green bond is completed and include volume of CO₂ emissions for data centers and green building projects, volumes of CO₂ emissions reduced and power generation capacity and/or amount of power generated for renewable energy projects, as well as name and level of green building certification acquired and the period of the acquisition

environment, and mitigation of heat island phenomena) to the Tokyo Metropolitan Government. At the time of the transfer of selling/leasing/trust beneficiary rights of newly built and extended buildings whose total floor space exceeds 10,000 m², a transferor is required to provide the assessment results of energy-saving properties to a transferee. In addition to the status of the adoption of energy-efficient facilities, etc., the assessment results of energy-efficiency properties have a section to evaluate the thermal insulation property of a building and power-saving property of a facility system. This uses the five-grade evaluation set by the Tokyo Metropolitan Government (AAA being the best and C being the worst).
<https://www7.kankyo.metro.tokyo.lg.jp/building/eva/outline.html#no5>

and reacquisition. Sustainalytics considers that the Group's reporting to be aligned with market practice.

Alignment with Green Bond Principles 2018

Sustainalytics has determined that the Framework aligns to the four core components of the GBP 2018. For detailed information please refer to Appendix 3: Green Bond/Green Bond Programme External Review Form.

Alignment with Japan's Green Bond Guidelines 2020

Sustainalytics is of the opinion that the Framework is in line with Japan's Green Bond Guidelines 2020. The guidelines communicate what an issuer should do to issue a credible green bond. Sustainalytics assessed the alignment between the Framework and the 'should' items outlined in the Japan's Green Bond Guidelines 2020.

GBP and Japan's Green Bond Guidelines 2020	Alignment with GBP and with Japan's Green Bond Guidelines 2020	Sustainalytics' comments on alignment with Japan's Green Bond Guidelines 2020 ⁷
1. Use of Proceeds	Yes	The eligible categories for use of proceeds defined in the Framework of NTT Group — 1) Energy efficiency, 2) Green buildings and 3) Renewable energy — are recognized as project categories with a clear environmental impact in Japan's Green Bond Guidelines 2020. In addition, the Framework indicates specific business categories of use of proceeds for investors to evaluate eligibility of the use of proceeds. The process to mitigate environmental risks associated with projects are described in the Framework for investors to review in advance. In cases of refinancing assets that require long-term maintenance through multiple issuances of green bonds, the Group has committed to, disclose the age of the assets, remaining useful life, and the amount of refinancing at the time of issuance.
2. Process for Project Evaluation and Selection	Yes	The Framework demonstrates the Eco Strategy 2030 and Environment and Energy Vision that NTT Group aims to achieve through the issuance of the green bond. The eligibility criteria, which serve as standards for project evaluation and selection, are also defined. Projects are evaluated and selected by NTT Group's affiliated companies which operate the projects, the Finance Department of NTT Finance Corporation, and NTT based on eligible criteria. The director in charge of the Finance Department of NTT Finance Corporation makes the final decision.

⁷ For detailed comments on alignment with ICMA GBP, please see Appendix 3.

3. Management of Proceeds	Yes	The Framework describes that the Finance Department of NTT Finance Corporation tracks and manages the proceeds of the green bond. To be specific, every quarter, it is confirmed that the sum of the allocated and unallocated amounts of the green bond proceeds matches the total amount of the green bond proceeds using an internal control system. NTT Group plans to allocate the proceeds within 24 months from issuance. As for unallocated proceeds, the equivalent amounts are managed as cash or cash equivalent.
4. Reporting	Yes	Until the green bond proceeds are fully allocated, NTT Group is committed that it will disclose the status of the allocation of the proceeds on its group website or integrated report every year. Should a significant change occur in the status of the fund thereafter, such will be disclosed in a timely manner. The Group plans to disclose the status of the allocation to eligible projects, an overview of the allocated eligible projects (including the age of the assets and remaining useful life), the allocated and unallocated amounts of the proceeds, the share of finance and refinance, and the planned period for the full amount of the proceeds to be allocated if there is any unallocated amount. Until the redemption of the green bond is completed, impact reporting shall be annually presented. As environmental improvement indicators, in addition to the volume of CO ₂ emissions reduced and emissions, the Group plans to disclose the names of green buildings, acquired certificate level, the period of the acquisition/reacquisition, and power generation capacity and/or amount of power generated.

Section 2: Sustainability Strategy of NTT Group

Contribution of framework to NTT Group's sustainability strategy

NTT Group has identified (1) climate change, (2) energy, (3) resources and (4) ecosystems as priority challenges within its environmental activities, and has set "Eco Strategy 2030" as targets for these issues by fiscal 2030⁸. In the areas of climate change and energy, the Group has set the goal of improving the power efficiency per data transmission of telecommunication businesses including data centers by ten times or more compared with that of fiscal 2013. The Group has been working to reduce the environmental impact of its telecommunication business by introducing equipment with high energy-saving performance and streamlining network configurations. Furthermore, NTT Group has set the target of contributing to reduce CO₂ emissions

⁸ NTT Group, "Environmental management, The NTT Group Environmental Statement, Identifying the Priority Environmental Issues of NTT Group", at : <https://www.ntt.co.jp/kankyo/e/management/analysis.html>

of society through the Group's products and services by more than ten times the amount released by NTT Group's business activities. In this way, the Group is also aiming to contribute to the reduction of CO₂ emissions of society as a whole⁹. For its real estate business, NTT Urban Development Corporation utilizes green building certifications to promote efforts to reduce the burden on the environment such as the control of GHG emissions, effective utilization of resources, and reduction of waste, as stipulated by its Environmental Policy¹⁰.

In May 2020, the Group established its "Environment and Energy Vision",¹¹ in which it aims to achieve "Zero Environmental Impact" in which the amount of contribution to reducing the environmental impact of society through business activities exceeds the environmental impact of the Group's business activities. Under one of the four pillars of the vision, "Promotion of Renewable Energy", the Group set a numerical target to achieve a utilization ratio of renewable energy of 30% or higher by fiscal 2030.

Given the above mentioned environmental goals of NTT Group, Sustainalytics considers that NTT Group is well positioned to issue green bonds. Moreover, Sustainalytics believes that the use of proceeds defined by the Framework is consistent with and contributes to the realization of the Group's environmental policy and long-term environmental goals.

Well positioned to address common environmental and social risks associated with the projects

While NTT Group's eligible projects generate positive environmental impact, Sustainalytics recognizes that that these projects are exposed to environmental and social risks. Major risks include the contamination of water, air and soil, negative effects on the ecology and local residents, and safety and sanitation risks with regard to workers due to development, construction and operation of buildings and renewable energy generation facilities. The construction and operation of data centers could result in the infringement of human rights in the supply chain to obtain mineral resources, information leakage, the invasion of data privacy, and an increase in power consumption. Sustainalytics believes that NTT Group is prepared to manage and reduce the risks associated with eligible projects by applying the following policies and processes:

- Within the framework, NTT Group commits to confirm the compliance with environmental laws and regulations of the country or municipality where the project is located, provide sufficient explanation to local residents and conduct environmental assessments as necessary. As main environmental laws and regulations related to eligible projects, NTT Group names the Environmental Impact Assessment Law and environmental impact assessment ordinances set by local governments for renewable energy projects, as well as the Soil Contamination Countermeasures Act and the Construction Material Recycling Law in relation to green buildings. Additionally, with respect to the treatment of hazardous waste and the storage, management and disposal of polychlorinated biphenyls (PCBs) equipment and contaminants, the Group commits within the Framework to ensure compliance with the Waste Management and Public Cleansing Law and Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes, respectively.
- To reduce the environmental impact of the entire life cycle of data centers and other buildings owned and managed by the Group, NTT Group has established the NTT Group Green Design Guideline for Buildings¹² to determine matters to be observed, such as energy efficiency, the reduction of toxic substances uses, and the effective utilization of resources. In addition, to develop and procure ICT equipment with high energy efficiency, NTT Group has compiled the NTT Group Energy Efficiency Guidelines¹³ and have set evaluation methods and standard values for power efficiency for each equipment. Furthermore, over 90% of the Group's total operation sites are working to mitigate environmental risks by introducing environment management systems including an international standard, ISO14001.
- In response to the supply chain risks associated with the Group's procurement activities, including data center business, the Group established the NTT Guidelines for CSR in Supply Chain¹⁴, and requests suppliers to conform to requirements in six areas of human rights and labor, health and safety, environment, fair trading, quality and safety, and information security, and conducts risk evaluation of tier

⁹ NTT Group, "Environmental management, The NTT Group Environmental Statement, The Eco Strategy 2030" at:

<https://www.ntt.co.jp/kankyo/e/management/strategy.html>

¹⁰ NTT Urban Development Corporation, "Environmental management system" (in Japanese), at:

<https://www.nttud.co.jp/csr/environment/management.html>

¹¹ NTT Group, "Financial Results for the Fiscal Year Ended March 31, 2020", at: https://www.ntt.co.jp/ir/library_e/presentation/2020/200515e.pdf

¹² NTT Group, "NTT Group Green Design Guideline for Buildings", at: https://www.ntt.co.jp/design/green_design_e.pdf

¹³ NTT Group, "NTT Group Energy Efficiency Guidelines", at: https://www.ntt.co.jp/kankyo/e/management/img/energy/guidelinever8_1_e.pdf

¹⁴ NTT Group, "NTT Guidelines for CSR in Supply Chain", at: https://www.ntt.co.jp/ontime/e/img/pdf/supply_chainE2.pdf

1 suppliers based on the guideline.¹⁵ Furthermore, based on the NTT Group's Human Rights Charter¹⁶, the Group identified human rights issues related to ICT businesses by conducting pre-assessments for data center businesses and potential human rights impact assessments, and committed to continuous monitoring and risk assessment and analysis on the aforementioned issues at all business areas in and outside Japan.

- Through the NTT Group Information Security Policy¹⁷, NTT Group is working to mitigate the information security risk at data centers. Within the policy, the Group commits to continuously implement measures to protect information, including the protection of secrecy of telecommunications, the implementation of security measures to prevent the loss, falsification, or leakage of information, supervision of outsourcing contractors, etc.
- To assure the safety and health of workers, the Group commits to complying with Labor Standards Act and the Industrial Safety and Health Act, and other relevant laws and regulations, and has established internal rules¹⁸.

Based on the above, Sustainalytics believes that NTT Group is well-positioned to manage and reduce the environmental and social risks associated with the eligible projects.

Section 3: Impact of Use of Proceeds

All three use of proceeds categories are aligned with those recognized by the GBP and Japan's Green Bond Guidelines 2020. Sustainalytics explains why those project categories produce positive environmental impacts in Japan as follows:

Contribution to climate change measures through the improvement of the energy efficiency of data centers

The amount of energy consumed by data centers around the world was 198 TWh in 2018, and this accounted for 1.1% of total power consumption¹⁹. Global communication traffic volume is expected to double from 2018 to 2021²⁰, and it is estimated that if energy efficiency improvements continue to be around 10% of historical performance, the amount of power consumed by data centers will increase by around 10% in 2021²¹. Similarly in Japan, projections show that data centers will increase their share of domestic electricity demand from 1.5% in 2018 to 5% in 2028²². Therefore, improving the energy efficiency of data centers plays an important role in curbing Japan's CO2 emissions

In the Framework, NTT Group determines that it shall allocate the proceeds of the green bonds for investing in highly efficient energy-saving data centers. In the Nationally Determined Contribution (NDC) of the Paris Agreement²³, the Japanese government set the goal of reducing the total GHG emissions volume of Japan by 26% between 2013 and 2030. To achieve this goal, the government aims to improve energy efficiency by about 35% and reduce energy demand by 50.3 million kL by 2030. Sustainalytics evaluates that the use of proceeds as determined by NTT Group will reduce the power consumed by data centers, the number of which is expected to grow in Japan, and contribute to the climate change measures promoted by the Japanese government.

Importance of Advancing Renewable Energy

The share of the power generated with renewable energy to Japan's total power generation volume in fiscal 2017 is 16% (solar photovoltaic 5.2%, wind 0.6%, biomass 2.1%, geothermal 0.2%, and hydroelectric power

¹⁵ NTT Group, "NTT Group Sustainability Report 2019", at: https://www.ntt.co.jp/csr_e/pdf/sustainability_report_2019_databook.pdf

¹⁶ NTT Group, "Respect for Human Rights", at: https://www.ntt.co.jp/csr_e/communication/team-ntt/02.html

¹⁷ NTT Group, "NTT Group Information Security Policy", at: <https://www.ntt.co.jp/g-policy/e/index.html>

¹⁸ NTT Group, "NTT Group Sustainability Report 2019", at: https://www.ntt.co.jp/csr_e/pdf/sustainability_report_2019_databook.pdf

¹⁹ International Energy Agency (IEA), "Data centers and data communication networks", at: <https://www.iea.org/reports/tracking-buildings/data-centres-and-data-transmission-networks>

²⁰ Ministry of Internal Affairs and Communications, "White Paper on Information and Communications, Part 1, Special Feature: The Evolving Digital Economy and the Future of Society 5.0"(Japanese only), at: <https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/r01/html/nd112110.html>

²¹ International Energy Agency (IEA), "Data centers and data communication networks", at: <https://www.iea.org/reports/tracking-buildings/data-centres-and-data-transmission-networks>

²² Nihon Keizai Shimbun, "Impact on power supply and demand at data centers: Challenges in developing transmission lines"(Japanese only), at: <https://www.nikkei.com/article/DGXMZO47917970Z20C19A7EE8000/>

²³ "Submission of Japan's Nationally Determined Contribution", at: <https://www.env.go.jp/press/files/jp/113675.pdf>

generation 7.9%)²⁴. With the Great East Japan Earthquake and the accident at Fukushima Daiichi Nuclear Power Plant, which occurred in 2011, as a turning point, the Japanese government announced a policy to reduce dependency on nuclear power generation and introduce renewable energy to the extent possible. It has also set the target of doubling the share of the power generated with renewable energy in Japan's total power generation volume in fiscal 2030 from 10.4% (before the earthquake) to 22–24% (solar photovoltaic 7.0%, wind 1.7%, biomass 3.6–4.6%, geothermal 1.0–1.1%, and hydroelectric power generation 8.8–9.2%)²⁵. By power source, the introduction of solar photovoltaic and hydroelectric power generation is steadily increasing, having achieved about 80% of the introduction goal set for fiscal 2030 as of the end of fiscal 2018. Meanwhile, the introduction progress rates for wind and geothermal power generation are both about 37%, biomass power generation is about 60%, and the promotion of further introduction is required for those areas.²⁶

Moreover, in NDC²⁷ of the Paris Agreement, the Japanese government pledged to reduce GHG emission volume by 26% between 2013 and 2030. As a precondition for this achievement, the government is working to achieve the energy-mix stated above. The Fifth Strategic Energy Plan²⁸ approved by the Japanese cabinet in 2018 presents the policy of making renewable energy the main power source by 2050.

In the Framework, NTT Group defines the projects related to renewable energy (solar photovoltaic, wind, biomass, geothermal, and hydroelectric power generation) as use of the proceeds. Sustainalytics views that the use of proceeds will contribute to achieving the Japanese government's climate change goals by increasing power generated from renewable energy and reducing the CO₂ emissions caused by power generation.

Importance of Promoting Green Buildings

CO₂ emissions from buildings accounts for about 30%²⁹ of Japan's total CO₂ emissions. As the final energy consumption in the Commercial and others sector and the Residential sector related to buildings such as offices, commercial facilities and housing increased about 20%³⁰ from 1990 levels, promotion of energy conservation in buildings is essential for reducing Japan's CO₂ emissions. Based on these conditions, the Ministry of Land, Infrastructure and Transport established the Act on the Improvement of Energy Consumption Performance of Buildings (Building Energy Efficiency Act)³¹ in 2015 aiming to improve the energy efficiency of buildings, and has been working on reinforcing energy-saving regulations on buildings by implementing a phased-introduction of regulatory measures including the obligation to comply with energy-efficiency standards.

Moreover, in the NDC³² of the Paris agreement, the Japanese government pledged to reduce GHG emissions by 26% by fiscal 2030 compared to that in fiscal 2013, and set the goal of cutting the CO₂ emissions of the Commercial and others sector and the Residential sector by 40% each. It aims to achieve the goal via a number of measures including improving the energy efficiency properties of newly built buildings, modifying existing buildings, reinforcing energy management, and introducing highly efficient lighting.

Green building certifications stipulated by NTT Group in the eligibility criteria of the Framework, evaluate energy efficiency properties, as well as the buildings performance and operation in the areas of resource conservation, pollution prevention and biodiversity. Sustainalytics considers that the use of proceeds will promote green buildings in Japan, and contribute to mitigate buildings' environmental impact and advance Japan's climate change measures.

²⁴ Agency for Natural Resources and Energy, "Current Status of Renewable Energy in Japan and Abroad and Draft Points of Discussion for the Current Fiscal Year's Procurement Price Calculation Committee" (Japanese only), at: https://www.meti.go.jp/shingikai/santeti/pdf/046_01_00.pdf

²⁵ Ministry of Economy, Trade and Industry, "Long-term Energy Supply and Demand Outlook" (2015), at:

http://www.meti.go.jp/english/press/2015/pdf/0716_01a.pdf

²⁶ Agency for Natural Resources and Energy, "Current Status of Renewable Energy in Japan and Abroad and Draft Points of Discussion for the Current Fiscal Year's Procurement Price Calculation Committee" (Japanese only), at: https://www.meti.go.jp/shingikai/santeti/pdf/046_01_00.pdf

²⁷ "Submission of Japan's Nationally Determined Contribution", at: <https://www.env.go.jp/press/files/jp/113675.pdf>

²⁸ Ministry of Economy, Trade and Industry, "Basic Energy Plan" (2018), at: https://www.meti.go.jp/english/press/2018/pdf/0703_002c.pdf

²⁹ Ministry of the Environment, "Japan's National Greenhouse Gas Emissions in Fiscal Year 2017 (Final Figures) (Japanese only)", at: https://www.env.go.jp/earth/ondanka/ghg-mrv/emissions/results/JNGI2019_1.pdf

³⁰ Ministry of Land, Infrastructure, Transport and Tourism, "Future Energy Conservation Measures for Housing and Buildings (Second Report) (Reference Material) (Japanese only)", at: <https://www.mlit.go.jp/common/001275971.pdf>

³¹ Ministry of Land, Infrastructure, Transport and Tourism, "Overview of the Building Energy Efficiency Act (Detailed Explanatory Session) (Japanese only)", at: <https://www.mlit.go.jp/common/001178846.pdf>

³² "Submission of Japan's Nationally Determined Contribution", at: <https://www.env.go.jp/press/files/jp/113675.pdf>

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. This green bond advances the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Energy Efficiency	7. Affordable and Clean Energy	7.3 By 2030, double the global rate of improvement in energy efficiency
Green Buildings	9. Industry, innovation and infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

Conclusion

NTT Group intends to issue green bonds based on the Framework and allocate the proceeds to new or existing projects related to 1) Energy Efficiency, 2) Green Buildings and 3) Renewable Energy. Under the Eco Strategy 2030 and Environment and Energy Vision, NTT Group has set numerical goals for reducing its own environmental impact and reducing CO₂ emissions of society through its business activities as environmental targets by fiscal year 2030, and the use of green bond proceeds are expected to contribute to achieving these long-term goals. Moreover, Sustainalytics believes that use of proceeds lead to advance the climate change measures of the Japanese government and SDGs 7 and 9 of the United Nations, by improving the energy efficiency of buildings and data centers where demand is expected to increase, as well as contributing to expand the introduction of renewable energy.

The Framework defines the Group's eligibility criteria and policies for project evaluation and selection process, management of proceeds, and reporting, which Sustainalytics views as aligned with market practices. In the Framework, NTT Group explains its measures to manage and mitigate the environmental and social risks associated with eligible projects, and Sustainalytics believes that the Group has adequate policies and processes in place.

Considering the above, Sustainalytics is of the opinion that the Framework is aligned with the four core components of GBP and Japan's Green Bond Guidelines 2020, and is credible and transparent.

Appendices

Appendix 1: Framework Overview

For the purpose of issuing green bonds, NTT Group has developed the following framework which addresses the four key core components of the GBP: use of proceeds, project evaluation and selection process, management of proceeds, and reporting, on May, 2020. The framework belongs to NTT Group. This framework has been developed for the issuance of green bonds by NTT Group and its affiliates³³.

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.

1.1 Eligibility Criteria

(i) 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

(ii) 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 be 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

(iii) 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

³³ https://www.ntt.co.jp/gnavi_e/index.html

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: CO₂ emissions shall be 100gCO₂/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

2.1 Application of Eligibility and Exclusionary Criteria in Project Selection

Projects that may be financed by the green bond are identified by the operating company³⁴ 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.

2.2 Environmental Objectives

By working to reduce CO₂ emissions from its business activities, and actively developing and promoting ICT services and cutting-edge technologies, NTT Group aims to help reduce the total CO₂ emissions of society and adjust to climate change to achieve a low-carbon society in the future. NTT Group sets out the following three numerical goals as measures to realize a low-carbon society in the future.

(1) CO₂ reduction of the Society

NTT Group has set the goal of increasing its contribution to reducing society's CO₂ emissions by at least tenfold, compared to the emission amounts released by NTT Group, by fiscal year 2030. This is a goal to control CO₂ emissions from business activities and contribute to the reduction of the total CO₂ emissions from society by providing services and technologies. As the major action items, the Group will provide services and technologies to help reduce the CO₂ 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 communication volume by ten times or more 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-initiative³⁵ to set CO₂ emission reduction targets that are consistent with the levels required by the Paris Agreement.

(3) Improving the utilization rate of renewable energy

³⁴ The operating companies that carry out the eligible businesses for which the funds will be used are as follows. Highly Efficient and Power Saving Data Center: NTT Global Data Center Corporation, Green Building: NTT Urban Development Corporation, Renewable Energy: NTT Anode Energy Corporation

³⁵ SBT (science-based targets): "setting targets in line with science". Despite targets for reducing CO₂ 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.

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.

2.3 Process to Mitigate Environmental and Social Risks

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

4.1 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.

4.2 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
Data center	• Volume of CO ₂ emissions
Green building	• Property name of green building, obtained certification level, and the timing of acquisition and reacquisition • Volume of CO ₂ emissions
Renewable energy	• Power generation capacity/actual volume (GWh) • Volume of CO ₂ emissions reduced (t-CO ₂)

Appendix 2: Overview and Comparison of Green Building Certification Schemes


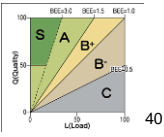


	LEED ³⁶	CASBEE Certification ³⁷	BELS ³⁸	DBJ Green Building Certification ³⁹
Background	Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by the non-profit U.S. Green Building Council (USGBC) and covers the design, construction, maintenance and operation of buildings.	The Comprehensive Assessment System for Built Environment Efficiency (CASBEE) Certification is a green building certification scheme in Japan, which a third party certifies the environmental performance of buildings. The certification scheme includes, based on types of buildings: CASBEE for Buildings, CASBEE for Real Estate, and CASBEE for Housing.	The Building-Housing Energy-efficiency Labelling System (BELS) is an energy performance label, issued under guidelines established by Japan's Ministry of Land, Infrastructure, Transport, and Tourism. The BELS certification scheme evaluates primary energy consumption in order to measure performance of energy conservation.	The Development Bank of Japan (DBJ) Green Building Certification Programme was launched by Development Bank of Japan in 2011 and is operated in conjunction with the Japan Real Estate Institute (JREI), a major appraisal firm in Japan. The certification scheme is recognized as one of Japan's major regional standards. The certification is available for office buildings, logistics, residential, and retail facilities.
Certification levels	Certified Silver Gold Platinum	C (Poor) B- (Slightly Poor) B+ (Good) A (Very Good) S (Excellent) * 4-grade evaluation for CASBEE for Real Estate excluding C rank	1 Star 2 Stars 3 Stars 4 Stars 5 Stars	1 Star 2 Stars 3 Stars 4 Stars 5 Stars
Areas of Assessment: Environmental Project Management		CASBEE assesses two main factors: inside and outside the building site, which translate into Q (Built Environment Quality) and, L (Built Environment Load), respectively. * The above are not applied to CASBEE for Real Estate	None	Evaluation of DBJ Green Building Certification includes construction specifications, environmental features as well as social factors.
Areas of Assessment: Environmental Performance of the Building	<ul style="list-style-type: none"> • Energy and atmosphere • Sustainable Sites • Location and Transportation • Materials and resources • Water efficiency 	<ul style="list-style-type: none"> • Energy Efficiency • Resource efficiency • Local environment • Indoor environment * Areas for assessment of	Energy efficiency	<ul style="list-style-type: none"> •Energy & Resources (Energy conservation, resource conservation, etc.) •Amenity (Convenience and comfort)

³⁶ More information on the LEED certification scheme at: <https://new.usgbc.org/leed>.

³⁷ Institute for Building Environment and Energy Conservation, "CASBEE certification scheme (Japanese only)", at: <http://www.ibec.or.jp/CASBEE/certification/certification.html>.

³⁸ Association for Housing Performance Evaluation & Labeling, "Building-Housing Energy-efficiency Labelling System Building Energy-efficiency Performance Labeling System (Japanese only)", at: <https://www.hyoukakyoukai.or.jp/bels/bels.html>.

³⁹ Development Bank of Japan, Japan Real Estate Institute (JREI), "DBJ Green Building", at: <http://igb.jp/en/index.html>.

	<ul style="list-style-type: none"> Indoor environmental quality Innovation in Design Regional Priority 	CASBEE for Real Estate are energy/GHG, water, resource, biodiversity, indoor environment		<ul style="list-style-type: none"> Resilience (Environmental risks, legal compliance, etc.) Community & Diversity (Consideration for the surrounding environment and biodiversity, etc.) Partnership (information disclosure, etc.)
Requirements	<p>Prerequisites (independent of level of certification) + Credits with associated points.</p> <p>These points are then added together to obtain the LEED level of certification</p> <p>There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operation and Maintenance).</p>	<p>Score-based performance level.</p> <p>CASBEE uses the BEE (Built Environment Efficiency) as its assessment indicator, which is calculated from Q (Built Environment Quality) as the numerator and L (Built Environment Load) as the denominator. Q and L are obtained through the classification and rearrangement of the four areas of assessment.</p> <p>* CASBEE for Real Estate does not use BEE, additional point system. Certification will not be given, if required item are not met.</p>	<p>Score-based performance level.</p> <p>The BELS score is based on the Building Energy Index, obtained by comparing the energy consumption of a building to the standard primary energy consumption of the building type in official guidelines.</p> <p>A two-star rating is equivalent to meeting existing energy conservation standards, with higher star ratings implying greater savings.</p> <p>The score is calculated by an accredited third party.</p>	<p>Score-based performance level.</p> <p>The assessment has a full score of 300 points and consists of 85 questions, 73 of which are regular questions and 12 of which are questions on innovative initiatives.</p> <p>JREI will conduct on the ground review of building performance on the indicators above, and a committee set in JREI will decide the result of certification rank.</p>
Performance display				
Qualitative considerations	Worldwide recognition and application	CASBEE is continuously developed based on industry-government-academia collaboration under the support of Ministry of Land, Infrastructure, Transport and Tourism. In Japan, many local governments have made CASBEE	BELS is aligned with official government standards.	In addition to LEED and CASBEE, DBJ Green Buildings Certification Programme is considered as one of the green building standards in Japan. According to its website, as of March 2019, 695 properties in Japan are certified by the programme. ⁴³

⁴⁰ Institute for Building Environment and Energy Conservation, "Method of Evaluation and Built Environment Efficiency (BEE)", at: http://www.ibec.or.jp/CASBEE/CASBEE_outline/method.html.

⁴¹ Institute for Building Environment and Energy Conservation, "Display example of BELS (Japanese only)", at: https://www.hyoukakyokai.or.jp/bels/pdf/170401bels_07.pdf.

⁴² Development Bank of Japan, "DBJ Green Building", at: http://www.dbj.jp/en/pdf/service/finance/g_building/gb_presentation.pdf.

⁴³ Development Bank of Japan, Japan Real Estate Institute (JREI), "DBJ Green Building", at: <http://igb.jp/en/index.html>.

		assessment results mandatory for building permits.		
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Appendix 3: Green Bond / Green Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	NTT Group
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	NTT Group Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	June 3, 2020
Publication date of review publication:	

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (please specify): | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (if applicable)

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section (if applicable):

The eligible categories for the use of proceeds, 1) Energy Efficiency, 2) Green Buildings, and 3) Renewable Energy, are aligned with those recognized by the GBP. Sustainalytics considers that the Group's eligible projects will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDGs 7 and 9.

Use of proceeds categories as per GBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency |
| <input type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input checked="" type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | <input type="checkbox"/> Other (<i>please specify</i>): |

If applicable please specify the environmental taxonomy, if other than GBPs:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

NTT Group's companies will respectively evaluate and select eligible projects based on eligible criteria, and the Finance Department of NTT Finance Corporation and Nippon Telegraph and Telephone Corporation (NTT) will select projects based on the NTT Group CSR Charter. The director in charge of the Finance Department of NTT Finance Corporation will make the final decision. The Group's process to evaluate and select projects is aligned with market practice.

Evaluation and selection

- | | |
|--|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on Responsibilities and Accountability

- ☒ Evaluation / Selection criteria subject to external advice or verification ☐ In-house assessment
- ☐ Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section (if applicable):

The proceeds of the green bond will be managed by NTT Finance Corporation. The Finance Department of NTT Finance Corporation will track and manage the allocated and unallocated amounts of the proceeds of the green bond using an internal management system. For unallocated proceeds, the equivalent amount of proceeds is to be managed as cash or cash equivalent. The Group's proceeds management process is aligned with market practices.

Tracking of proceeds:

- ☒ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- ☒ Disclosure of intended types of temporary investment instruments for unallocated proceeds
- ☐ Other (please specify):

Additional disclosure:

- ☐ Allocations to future investments only ☒ Allocations to both existing and future investments
- ☐ Allocation to individual disbursements ☐ Allocation to a portfolio of disbursements
- ☐ Disclosure of portfolio balance of unallocated proceeds ☐ Other (please specify):

4. REPORTING

Overall comment on section (if applicable):

NTT Group is committed to disclosing allocation reporting and impact reporting on its Group website or an integrated report annually. Allocation reporting will include the allocation status, an overview of allocated projects, amount allocated and unallocated, and shares of financing and refinancing. Impact reporting will include quantitative environmental performance indicators including green building certification and level received, in addition to qualitative environmental performance indicators including CO2 emissions of data center and green building projects as well as CO2 emissions avoided of renewable energy projects. Sustainalytics views the Group's reporting as aligned with market practice.

Use of proceeds reporting:

- ☐ Project-by-project ☒ On a project portfolio basis
- ☐ Linkage to individual bond(s) ☐ Other (please specify):

Information reported:

- ☒ Allocated amounts ☐ Green Bond financed share of total investment
- ☒ Other (please specify): Overview of eligible projects funded, ratio of finance and refinance, unallocated amount, planned allocation period

Frequency:

- ☒ Annual ☐ Semi-annual
- ☒ Other (please specify): In a timely manner, in the event of a significant change in the status of funds occur after full allocation

Impact reporting:

- ☒ Project-by-project ☒ On a project portfolio basis
- ☐ Linkage to individual bond(s) ☐ Other (please specify):

Information reported (expected or ex-post):

- ☒ GHG Emissions / Savings ☐ Energy Savings
- ☐ Decrease in water use ☒ Other ESG indicators (please specify): Name of Green Building, Obtained certification level, and the timing of certification and recertification, Power generation capacity and/or amount of power generated

Frequency

- ☒ Annual ☐ Semi-annual
- ☐ Other (please specify):

Means of Disclosure

- ☐ Information published in financial report ☐ Information published in sustainability report
- ☐ Information published in ad hoc documents ☒ Other (please specify): NTT Group website or Integrated Report
- ☐ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- | | |
|--|--|
| <input type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. Second Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

Disclaimer

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These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-dateness or fitness for a particular purpose. The information and data are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics accepts no liability for damage arising from the use of the information, data or opinions contained herein, in any manner whatsoever, except where explicitly required by law. Any reference to third party names or Third Party Data is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our third-party data providers and their respective terms of use is available on our website. For more information, visit <http://www.sustainalytics.com/legal-disclaimers>.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

This document is translated from the Japanese language. In case of discrepancies between the Japanese language and translated versions, the Japanese language version shall prevail.

Sustainalytics

Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that supports investors around the world with the development and implementation of responsible investment strategies. For over 25 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in the policies, practices and capital projects. With 16 offices globally, Sustainalytics has more than 600 staff members, including over 200 analysts with varied multidisciplinary expertise across more than 40 industry groups. For more information, visit www.sustainalytics.com.

