

Central Japan Railway Company Green Bond Framework January 27, 2022

ESG Division

Chief Analyst: Tatsushi Oishi

Rating and Investment Information, Inc. (R&I) has confirmed the alignment of the Green Bond Framework of Central Japan Railway Company (JR Central) dated January 27, 2021 with the "Green Bond Principles 2021" and the Ministry of the Environment's "Green Bond Guidelines 2020." This opinion is based on the following views.

#### ■Overview of the Opinion

#### (1) Use of Proceeds

All proceeds will be allocated to invest in the renewal, expansion, and new production of Shinkansen rolling stock that contribute to global environment preservation. The Tokaido Shinkansen is categorized as "clean transportation" under GBP 2021 because the Shinkansen is expected to have higher environmental benefits among intercity transportation. The environmental benefits include: lower CO<sub>2</sub> emissions per kilometer and passenger compared with other transportation means; and zero direct CO<sub>2</sub> emissions. Regarding the new Shinkansen rolling stock N700S, which is the object of the proceeds, several means, such as adopting the SiC element drive system, reducing weight of rolling stock, and reducing running resistance, will realize the environmental benefits. R&I evaluated that responses to negative impacts on the environment and society were taken, and positive results would be achieved.

#### (2) Process for Project Evaluation and Selection

JR Central has raised "global environment preservation" as one of the important issues in the practice of ESG management. Recognizing the environmental superiority of the railway business in the transportation sector, the Company positions its promotion as a contribution to the environmental improvement in the entire transportation sector. The target project of this framework is incorporated as clearly contributing to this, and the eligibility criteria are designed as being consistent with this. The selection process involves a comprehensive analysis and examination of financial, technical and operational, market environmental, and ESG risks. It is appropriately designed to ensure expertise in environmental and social aspects by exchanging opinions with each department involved in the target project.

#### (3) Management of Proceeds

The Finance Department will check the allocation of proceeds once a year until all proceeds are allocated. Unallocated funds will be managed as cash or cash equivalents. There is no problem with the management system of proceeds.

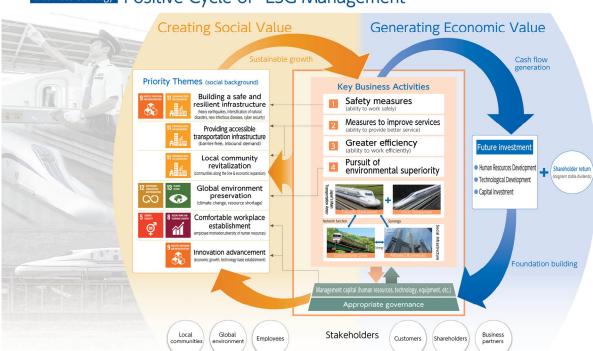
#### (4) Reporting

Quantitative indicators showing the allocation of proceeds and environmental benefits will be disclosed annually on the website. In addition to the disclosures made for each project, the evaluation of the environmental benefits by implementing the target project is already disclosed. Therefore, the items of which the benefits can be grasped have been set, and the reporting contents are appropriate.



#### Outline of the Issuer

- JR Central is a railway business operator engaged in transportation, distribution, real estate, and other businesses. The transportation business mainly consists of the Tokaido Shinkansen, connecting Tokyo, Nagoya, and Osaka, and 12 conventional lines, mainly for urban transportation in the Nagoya and Shizuoka areas. In 1987, Japanese National Railways was divided and privatized. JR Central took over the business, etc., and has continued to this day.
- The market area of the Tokaido Shinkansen, the Company's main business, is the fifth largest economy in terms of GDP after the United States, China, Japan, and Germany. It also has an overwhelming transport capacity compared to other transport methods, reaching approximately 16 times that of aviation. It has an unparalleled global presence in the intercity transportation market.
- JR Central established its management philosophy. That is "contribute to the development of Japan's main transportation artery and social infrastructure." Japan's main transportation artery refers to the highspeed, large capacity passenger transportation between Tokyo, Nagoya, and Osaka. Social infrastructure refers to the infrastructure that supports people's lives, which is realized through the operation of conventional lines and the development of related businesses based in the region, centered on Nagoya and Shizuoka areas, in unison with the main transportation artery, namely intercity transportation. Based on this management philosophy, the Company has adopted the following measures as its basic policy: from a medium- to long-term perspective, maintain and develop the Tokaido Shinkansen, which serves as Japan's main transportation artery, and the conventional line network in the Tokai region in an integrated manner with the highest priority on ensuring safe and reliable transportation; operate a "three generations railways" by constructing the Chuo Shinkansen to make Japan's main transportation artery a dual system; develop related businesses that have synergistic effects with railways as a group company. While creating "economic value" through business strategies based on the basic policy, JR Central also practices "ESG management" to create "social value" to realize a sustainable and prosperous society.



Business Strategy Positive Cycle of "ESG Management"

[Source: JR Central Integrated Report 2021]

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JR Central's market area covers Tokyo, Kanagawa, Chiba, Saitama, Ibaraki, Shizuoka, Yamanashi, Nagano, Aichi, Mie, Gifu, Shiga, Osaka, Kyoto, Hyogo and Nara.



- The creation of "economic value" and the creation of "social value" in "ESG management" are not independent, but mutually affect and bring about a virtuous cycle. This is considered the same as sustainability management, which contributes to social sustainability while enhancing corporate value through business promotion. JR Central places top priority on safety measures and carries out business activities that focus on improving services, improving efficiency, and pursuing environmental superiority. In addition to creating "economic value," JR Central aims to create "social value" by contributing to the resolution of important issues such as "construction of safe and resilient infrastructure," "provision of transportation infrastructure that is easy to use," "revitalization of local communities," "global environment preservation," "establishment of comfortable workplaces," and "promotion of innovation." The cycle of creating "social value" and returning it to business activities is a cycle in "ESG management."
- JR Central places top priority on ensuring safe and reliable transportation, building resilient infrastructure to support Japan's main transportation artery and regional transportation as social infrastructure, and developing related businesses to contribute to the sustainable development of the Japanese economy and local communities. This is the S (social) of ESG. Railways have the advantage of being more energy efficient and having less impact on the global environment than other transportation means, so promoting the use of railways greatly contributes to global environment preservation. This is the E (environment) of ESG. The G (governance) of ESG is to conduct these corporate activities under proper governance.
- The Environmental Action Guidelines have been established for environmental activities. The
  Environmental Action Guidelines consist of the following seven items. It covers a wide range of areas,
  from the provision of transportation services by railways, which have an environmental advantage, to
  energy saving, waste, and material procurement.

#### **Environmental Action Guidelines**

JR Central has established a set of Environmental Action Guidelines consisting of the following seven items as part of its engagement in global environment preservation.

- 1] Provide comfortable transportation services to promote further use of railways, which offer superior global environment preservation
- [2] Promote technological development that contributes to global environment preservation
- [3] Use fuel and energy efficiently
- [4] Promote waste control and recycling
- [5] Appropriately manage chemical substances
- [6] Procure environmentally friendly goods and materials
- [7] Contribute to society and raise awareness for global environment preservation

[Source: JR Central Web Page]

- In order to promote activities related to global environment preservation throughout the company, the Corporate Planning Division and the General Technology Division disseminate information and provide guidance to the company regarding the current situation concerning global environment preservation, JR Central's action policies, and compliance. In addition, the Technology Research and Development Department within the General Technology Division has acquired ISO 14001 certification, the international standard for environmental management systems. Regarding the disclosure of environment-related information, JR Central expressed its support for the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB). JR Central grasped the financial impact toward risks etc., caused by climate change and is proceeding with the disclosure of information based on the recommendations of the TCFD.
- In problems related to the environment, the issue of global warming, in particular, has become a matter to be tackled on a global scale. In these circumstances, JR Central recognizes that the railway business has an advantage over other transportation systems in terms of energy efficiency and environmental load. Railways account for 30% of passenger traffic in Japan, but only 6% of CO2 emissions. Based on this understanding, JR Central believes that promoting the selection and use of railways for more customers will reduce the environmental load of the entire transport sector.
- JR Central will work on reducing CO2 emissions in line with the government's "carbon neutrality by 2050"



policy toward a decarbonized society. About 95% of the CO2 emitted by JR Central is emitted indirectly when generating the electricity it purchases, and the remaining 5% is emitted directly through the use of fuels, etc. As for the approximately 5% of direct emissions, JR Central is engaged in technological development and investigative research aimed at the electrification of rolling stock. As for the indirect 95%, JR Central works on reducing CO2 emission by adopting new technologies such as energy-saving in rolling stock and facilities, and utilizing renewable energy. In addition, in order to protect the environment, JR Central complies with a variety of environmental laws and regulations and works to manage and reduce chemical substances and wastes properly.



#### 1. Use of Proceeds

# (1) Eligible Projects

 The proceeds will be allocated to new expenditures or refinance of existing expenditures for the following eligible projects that fall under the "clean transportation" category of the Green Bond Principles. In the case of refinancing, the lookback period is 36 months.

Business and Projects	Green Bond Principle	Consistency with the SDGs
	Project Category	
· Investment in the renewal,	Clean transportation	13. Take urgent action to
expansion, and new production		combat climate change and its
of Shinkansen rolling stock that		impacts
contribute to global environment		
preservation		

- The exclusion criteria are set not to allocate proceeds to projects related to followings.
  - Unfair dealings that do not comply with the laws and regulations of the host country; and bribery, corruption, extortion, embezzlement, and other improper relationships
  - Transactions that may cause social problems such as human rights and the environment

# (2) Environmental Benefits

- Specifically, the eligible project is an investment related to the renewal, expansion, and new production
  of Shinkansen rolling stock that contribute to global environment preservation. The Shinkansen has an
  extremely high environmental advantage over other transportation systems. Compared with an airplane
  between Tokyo and Osaka, which is closer in transportation distance to the Tokaido Shinkansen than
  other transportation systems, the Shinkansen consumes approximately 1/8th of the amount of energy per
  seat, and discharges about 1/12th of the CO2 emissions.
- The amount of CO2 emissions per seat of the Tokaido Shinkansen Series N700 "Nozomi" is disclosed as 4.2 kg-CO2, which is equivalent to about 8 g-CO2/p-km (calculated by R&I). In addition, the Shinkansen is a transportation mode that runs on electricity and has zero direct CO2 emissions. They meet the mitigation requirements of the CBI's Land Transport Criteria<sup>2</sup>.



 The energy consumption amount per seat when traveling between
 Tokyo and Osaka is approximately 1/8th of that of an aircraft

 The CO2 emission rate for the same is around 1/12th

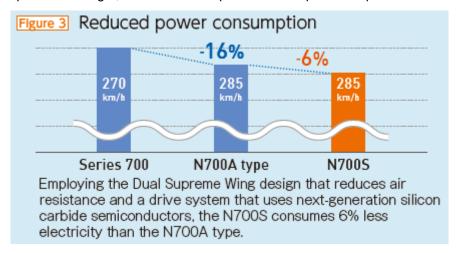
[Source: JR Central Web Page]

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<sup>&</sup>lt;sup>2</sup> The Land Transport Criteria of the Climate Bonds Initiative is currently version 2. Established in October 2020.



- The rolling stock to which the proceeds will be allocated is the new Shinkansen rolling stock N700S. JR
  Central has been reducing power consumption while increasing maximum speed in the 300 series, 700
  series, and N700 series. N700S was newly introduced in FY2020, and 40 sets will be introduced by
  FY2023.
- The superiority of N700S in energy consumption has been realized by adopting a nose shape (dual supreme wing, etc.) that reduces running resistance, adopting next-generation semiconductors (SiC elements) in drive systems, and reducing weight of rolling stock. Compared with the N700A type<sup>3</sup>, which is the main replacement target, 6% reduction in power consumption is expected.



[Source: JR Central Integrated Report 2021]

# (3) Consideration for Negative Environmental and Social Impacts

- The potential negative impact of the initiatives of this project is the event of unfair or inappropriate transactions in the supply chain and the disposal of rolling stock to be replaced in the case of rolling stock replacement.
- Exclusion criteria are set for transactions in the supply chain.
- As for waste disposal due to the replacement of rolling stock, JR Central promotes the 3Rs (Reduce, Reuse and Recycle) and other initiatives to realize a recycling-oriented society. As a specific initiative to reduce waste in this project, aluminum used in the bodies of scrapped Shinkansen rolling stock is recycled into building materials for interiors and interior parts of the N700S. As an example of the use of building materials for interiors, aluminum bodies are reused for concourses, pillars, ceilings, etc., in the Tokyo Gift Palette, a specialty shopping street at the Yaesu North Exit of Tokyo Station.

All proceeds will be allocated to invest in the renewal, expansion, and new production of Shinkansen rolling stock that contribute to global environment preservation. The Tokaido Shinkansen is categorized as "clean transportation" under GBP 2021 because the Shinkansen is expected to have higher environmental benefits among intercity transportation. The environmental benefits include: lower CO2 emissions per kilometer and passenger compared with other transportation means; and zero direct CO2 emissions. The environmental benefits are realized by technological development, such as reducing running resistance, improving the energy efficiency of the drive system, and reducing weight. R&I evaluated that responses to negative impacts on the environment and society were taken, and positive results would be achieved.

<sup>&</sup>lt;sup>3</sup> Generic name for N700A and N700 series (remodeled)



# 2. Process for Project Evaluation and Selection

# (1) Incorporation into Comprehensive Objectives, Strategies and so on

- In the management philosophy, "contribute to the development of Japan's main transportation artery and social infrastructure," the major artery refers to the high-speed mass passenger transportation between Tokyo, Nagoya, and Osaka. It includes the Tokaido Shinkansen, the subject of this project.
- In the course of implementing ESG management with the aim of creating "economic value" and "social value" based on the management philosophy, JR Central lists "global environment preservation" as one of the important issues. Considering "global environment preservation," JR Central recognizes the advantages of energy efficiency and low impact on the global environment of railways compared to other modes of transportation. It believes that promoting the use of railways will contribute to reducing the environmental load of the entire transportation sector.
- Investment in the renewal, expansion, and new production of Shinkansen rolling stock that contributes to global environment preservation is clearly positioned in the above strategy.

# (2) Criteria for Project Evaluation and Selection

- It is stipulated that the project falls under the "clean transportation" category in GBP 2021 as eligible criteria.
- In addition, the exclusion criteria stipulate that the proceeds will not be allocated to projects related to "unfair dealings that do not comply with the laws and regulations of the host country; and bribery, corruption, extortion, embezzlement, and other improper relationships" and "transactions that may cause social problems such as human rights and the environment."
- The eligible and exclusion criteria are appropriate criteria for green bond projects.

# (3) Process for Project Evaluation and Selection

- Project selection is carried out through the process in which the Finance Department selects candidate
  projects after coordination with relevant business units that have business expertise. The director in
  charge of the Finance Department makes a final decision after consultation with the general manager of
  the Corporate Planning Division.
- Project eligibility evaluation is a process that comprehensively analyzes financial, technical and operational, market environmental, and ESG risks. In the implementation of the project, there is a system to confirm the necessary conditions to ensure sound implementation of the project while working to harmonize the project with the surrounding environment in all relevant departments.

JR Central has raised "global environment preservation" as one of the important issues in the practice of ESG management. Recognizing the environmental superiority of the railway business in the transportation sector, the Company positions its promotion as a contribution to the environmental improvement in the entire transportation sector. The target project of this framework is incorporated as clearly contributing to this, and the eligibility criteria are designed as being consistent with this. The selection process involves a comprehensive analysis and examination of financial, technical and operational, market environmental, and ESG risks. It is appropriately designed to ensure expertise in environmental and social aspects by exchanging opinions with each department involved in the target project.



# 3. Management of Proceeds

- The Finance Department will check the allocation of proceeds once a year using the internal control system until all proceeds are allocated.
- In the event that unallocated funds occur, such funds shall be managed in cash or cash equivalents until
  the entire amount is fully allocated.

The Finance Department will check the allocation of proceeds once a year until all proceeds are allocated. Unallocated funds will be managed as cash or cash equivalents. There is no problem with the management system of proceeds.

# 4. Reporting

# (1) Overview of Disclosure

Reporting will be made as follows:

	Items	Timing	Method
Allocation of proceeds	Amount of allocation of funds for eligible projects Amount of unallocated funds Amount already allocated within the total amount of allocated proceeds for each fund procured	Annual (until full allocation)	Website
Environmental Benefits	Number of new rolling stock introduced per year Energy saving effects from the introduction of rolling stock new models (Reduction ratio in power consumption compared to conventional rolling stock)	Annual (until full allocation)	Website

• Disclosures should be made promptly when a significant change is made to the proceeds allocation status or when a significant change occurs in the allocation status after proceeds are allocated.

### (2) Indicators to Show Environmental Benefits and Calculation Method, etc.

• In terms of the environmental aspect, the relationship between the number of rolling stock introduced and the CO2 reduction effect will be indicated by the reduction ratio in power consumption by comparison with rolling stock to be replaced. Since the environmental benefits of the new model rolling stock have already been evaluated by various disclosures, R&I judged that the items that enable us to grasp the improvement effects of the target project implementation would be disclosed.

Quantitative indicators showing the allocation of proceeds and environmental benefits will be disclosed annually on the website. In addition to the disclosures made for each project, the evaluation of the environmental benefits by implementing the target project is already disclosed. Therefore, the items of which the benefits can be grasped have been set, and the reporting contents are appropriate.



#### [Disclaimer]

Second Opinion is not the Credit Rating Business, but one of the Ancillary Businesses (businesses excluding Credit Rating Service but are ancillary to Credit Rating Activities) as set forth in Article 299, paragraph (1), item (xxviii) of the Cabinet Office Ordinance on Financial Instruments Business, etc. With respect to such business, relevant laws and regulations require measures to be implemented so that activities pertaining to such business would not unreasonably affect the Credit Rating Activities, as well as measures to prevent such business from being misperceived as the Credit Rating Business.

Second Opinions are R&l's opinions on the alignment of a framework, formulated by companies etc. to raise funds for the purpose of environmental conservation and social contribution, with the principles etc. compiled by public organizations or private organizations related to the relevant financing as of the date of assessment. Second Opinions do not address any matters other than the alignment (including but not limited to the alignment of a bond issue with the framework and the implementation status of the project subject to financing). Second Opinions do not certify the outcomes and other qualities of the projects subject to the financing. Hence, R&l will not be held responsible for the effectiveness of the projects, including their outcomes. Second Opinions are not, in any sense, statements of current, future, or historical fact and should not be interpreted as such, and Second Opinions are not a recommendation to purchase, sell, or hold any particular securities and do not constitute any form of advice regarding investment decisions or financial matters. Second Opinions do not address the suitability of an investment for any particular investor. R&l issues Second Opinions based on the assumption that each investor will investigate and evaluate the securities which they plan to purchase, sell, or hold for themselves. All investment decisions shall be made at the responsibility of the individual investor.

The information used when R&I issues Second Opinions is information that R&I has determined, at its own discretion, to be reliable. However, R&I does not undertake any independent verification of the accuracy or other aspects of that information. R&I makes no representation or warranty, express or implied, as to the accuracy, timeliness, adequacy, completeness, merchantability, fitness for any particular purpose, or any other matter with respect to any such information.

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As a general rule, R&I issues a Second Opinion for a fee paid by the issuer.

Japanese is the official language of this material and if there are any inconsistencies or discrepancies between the information written in Japanese and the information written in languages other than Japanese the information written in Japanese will take precedence.

#### [Expertise and Third-Party Characteristics]

R&I has launched the R&I Green Bond Assessment business in 2016, and since then, R&I has accumulated knowledge through numerous evaluations. Since 2017, R&I has been participating as an observer in the Green Bond Principles and Social Bond Principles, which have their own secretariat at the International Capital Market Association (ICMA). It also has been registered since 2018 as an Issuance Supporter (external review entity) of the Financial Support Programme for Green Bond Issuance, a project by the Ministry of the Environment.

The R&I assessment method and results can be found on the R&I website (https://www.r-i.co.jp/en/rating/esg/index.html). There is no capital or personal relationship between R&I and the fundraiser that could create a conflict of interest.



# **Green Bond / Green Bond Programme Independent External Review Form**

# Section 1. Basic Information

Issuer name: Central Japan Railway Company

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: Green Bond Framework Independent External Review provider's name: Rating and Investment Information, Inc. (R&I)

Completion date of this form: January 27, 2022

Publication date of review publication: January 27, 2022

#### 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:

$\boxtimes$	Use of Proceeds  Management of Proceeds	$\boxtimes$	Process for Project Evaluation and Selection Reporting
ROLE(S	S) OF INDEPENDENT EXTERNAL REVIEW PROV	IDER	
$\boxtimes$	Second Party Opinion		Certification
	Verification		Scoring/Rating
	Other (please specify):		

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

Latest update: June 2018

#### **EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (if applicable)** <Second Party Opinion: Second Opinion> R&I has provided a second opinion that the green bond framework is aligned with the Green Bond Principles 2021 and the Green Bond Guidelines 2020 by Ministry of the Environment of Japan. For details, please refer to the report 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): For details, please refer to "1. Use of Proceeds" in the report above. Use of proceeds categories as per GBP: Renewable energy **Energy efficiency** Pollution prevention and control Environmentally sustainable management of living natural resources and land use Terrestrial and aquatic biodiversity $\boxtimes$ Clean transportation conservation Sustainable water and wastewater Climate change adaptation management Eco-efficient and/or circular economy Green buildings (Environmentally adapted products, production technologies Responsible Building) and processes Unknown at issuance but currently expected Other (please specify):

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

to conform with GBP categories, or other eligible areas not yet stated in GBPs

# 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):				
For details, please refer to "2. Process for Project Evaluation and Selection" in the report above.				
Evalua	ation and selection			
$\boxtimes$	Credentials on the issuer's environmental sustainability objectives	$\boxtimes$	Documented process to determine that projects fit within defined categories	
$\boxtimes$	Defined and transparent criteria for projects eligible for Green Bond proceeds		Documented process to identify and manage potential ESG risks associated with the project	
	Summary criteria for project evaluation and selection publicly available		Other (please specify):	
Inform	nation on Responsibilities and Accountab	ility		
	Evaluation / Selection criteria subject to external advice or verification	$\boxtimes$	In-house assessment	
	Other (please specify):			
3. MA	NAGEMENT OF PROCEEDS			
Overal	I comment on section (if applicable):			
For details, please refer to "3. Management of Proceeds" in the report above.				
Trackir	ng of proceeds:			
$\boxtimes$	Green Bond proceeds segregated or tracked	d by th	e issuer in an appropriate manner	
$\boxtimes$	Disclosure of intended types of temporary investment instruments for unallocated proceeds			
	Other (please specify):			
Additio	onal disclosure:			
	Allocations to future investments only	$\boxtimes$	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):					
For details, please refer to "4. Reporting" in the report above.					
Use of	proceeds reporting:				
$\boxtimes$	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):				
	Frequency:				
			Semi-annual		
	☐ Other (please specify):				
Impact	t reporting:				
$\boxtimes$	Project-by-project		On a project portfolio basis		
	Linkage to individual bond(s)		Other (please specify):		
	Frequency:				
			Semi-annual		
	☐ Other (please specify):				
	Information reported (expected or ex-po	ost):			
	☐ GHG Emissions / Savings	$\boxtimes$	Energy Savings		
	☐ Decrease in water use		Other ESG indicators (please specify):		
Means	s of Disclosure				
	Information published in financial report		Information published in sustainability report		
	Information published in ad hoc	$\boxtimes$	Other (please specify): Issuer's website		
	documents Reporting reviewed (if yes, please specify whice	h parts	of the reporting are subject to external review):		
		•	,		

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

<b>USEFUL LINKS</b> (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)			
The evaluation methodology and services     https://www.r-i.co.jp/en/rating/products/esg/index.html			
(1) Gre	uation performance en Finance s://www.r-i.co.jp/en/rating/esg/greenfinance,	/index.	html
(2) Sustainability Finance https://www.r-i.co.jp/en/rating/esg/sustainabilityfinance/index.html			
(3) Social Finance https://www.r-i.co.jp/en/rating/esg/socialfinance/index.html			
SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE  Type(s) of Review provided:			
	Second Party Opinion		Certification
	Verification		Scoring/Rating
	Other (please specify):		
Revie	ew provider(s):		Date of publication:

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

- 1. 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.
- 2. 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.
- 3. **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.
- 4. 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.