



## **SECOND PARTY OPINION**

# EAST JAPAN RAILWAY COMPANY SUSTAINABILITY FINANCE FRAMEWORK

Prepared by: DNV Business Assurance Japan K.K.

Location: Kobe, Japan

Date: 2 December 2024

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## Revision history

Revision number	Date of issue	Remarks
0	5/12/2022	Initial
1	2/12/2024	Additional assessment of the revised framework with the expansion of green and social projects and the addition of the EU Taxonomy to the relevant criteria

#### Disclaimer

Our assessment relies on the premise that the data and information provided by Fundraiser to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per scope of work. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Statement.

#### **Statement of Competence and Independence**

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV Code of Conduct1 during the assessment and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of statements or data included in the Framework except for this Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assessment process.

 $<sup>^{1}</sup>$  DNV Code of Conduct is available from DNV website (www.DNV.com)



## **Executive Summary**

This assessment (Second Party Opinion) was additionally evaluated in November 2024 as Revision 1 based on a revision of the "East Japan Railway Company Sustainability Finance Framework." Specifically, the revised content of the Framework is the expansion of green and social projects and clarification of the compliance of some green projects with the EU Taxonomy.

East Japan Railway Company (hereinafter, "JR East") was established in 1987 following the division and privatization of Japan National Railways (JNR) and was the first of the seven JR companies, comprising six passenger companies and a freight company, to become fully privatized in 2002. JR East and its group companies (hereinafter, the "JR East Group") operate transportation, retail & services, real estate & hotels, and others under the following group philosophy.

## **Group Philosophy**

- We will earn the trust of our customers as a whole group by aiming for ultimate safety levels as our top priority.
- We will strengthen our network capabilities focusing on technologies and information, and we are committed to helping our customers and people in communities to realize affluent lives.

In 2018, JR East announced the JR East Group Management Vision "Move Up" 2027, to anticipate the changes in the business environment up to around 2027. East Japan Railway Company will shift its starting point from "Railway-Focused" to "People-Focused" and create new value in the form of "trust" and "affluence" in cities, regions, and the world at large over the next ten years.

The JR East Group has positioned energy as an important element in the implementation of ESG management, which is the main initiative of "Move Up" 2027, and formulated the long-term environmental goal of "Zero Carbon Challenge 2050" in May 2020 for the realization of a sustainable society and the sustainable growth of the Group. In July 2022, the JR East Group formulated "Energy Vision 2027—Connect" as its energy strategy for the future.

In order to realize these measures, JR East decided to partly utilize sustainability finance etc. and has established the "East Japan Railway Company Sustainability Finance Framework (hereinafter, the "Framework")" in December 2022, which is based on the principles and guidelines widely recognized in the green and social finance market as set out below. JR East has issued three sustainability bonds and five green bonds in total based on the Framework. Five green bonds are foreign bond issuances compliant with the EU Taxonomy. Based on this track record, the Framework was revised in December 2024 in line with the principles and guidelines related to the latest green and social finance and the applicable EU Taxonomy criteria.

DNV Business Assurance Japan K.K. (hereinafter, "DNV"), as an external reviewer, provided an evaluation of the eligibility of the Framework, applying the principles and guidelines below.

- Green Bond Principles (ICMA/2021, hereinafter GBP)



- Social Bond Principles (ICMA/2021, hereinafter SBP)
- Sustainability Bond Guidelines (ICMA/2021, hereinafter SBG)
- Green Bond Guidelines (Ministry of the Environment/2024, hereinafter GBGL)
- Social Bond Guidelines (Financial Services Agency/2021, hereinafter SBGL)
- Green Loan Principles (LMA et al./2023, hereinafter GLP)
- Social Loan Principles (LMA et al./2023, hereinafter SLP)
- Green Loan Guidelines (Ministry of the Environment/2024, hereinafter GLGL)
- EU Taxonomy (relevant section out of 3. Manufacture, 4. Energy, and 6. Transport) (European Commission)

The Framework is structured as an overarching framework that includes the elements required for the implementation of the following finance (bond or loan).

- Green finance (finance exclusively for green eligible projects)
- Social finance (finance exclusively for social eligible projects)
- Sustainability finance (finance exclusively for green and social eligible projects)

Sustainability (green and social) eligible projects for JR East will be selected and allocated from the table below.



Table-1 Sustainability (green and social) eligible projects

Categ ory	GBP/SBP Category	Pro	ject/eligibility criteria	Relevant main environmental /social issues	Contribution to the SDGs*1
	Clean transportation Climate change adaptation		transportation (Sections of s powered by electric battery ain cars)*2	Global warming and climate	11 SUSTAINABLE CITIES  AND CHARACHERISS
	Renewable energy Green	generation Businesses	including green buildings and	change adaptation	13 CLIMATE ACTION
Green	Pollution prevention and control  Environmentall y sustainable management of living natural resources and land use, Terrestrial and aquatic biodiversity	Circular Economy  Nature Positivity	Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in plastic waste recycling     Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in food waste recycling     Expenditure related to the operation or maintenance of, or the financial investment in food waste recycling     Expenditure related to the operation or maintenance of, or the financial investment in afforestation / initiatives aimed at harmonizing water use with the river environment / projects that contribute to biodiversity	Circular economy Biodiversity	12 RESPONSIBLE GUISIANFITON AND PRODUCTION CO
Social	Affordable basic infrastructure  Socioeconomic advancement and empowerment	Railway facilities  Pedestria n walkways network	Available space for wheelchair passengers and accessible restrooms for wheelchair passengers  Install platform doors  Install barrier free bathroom  Install elevators for platform access by wheelchair passengers  Install safe and comfortable pedestrian walkways including various types of open spaces, rest spaces and lush excursion spaces for pedestrians to socialize and relax	Society in which all people can play active roles (realizing accessible society)	9 MOUSTRY AND AND PRASTRUCTURE  11 SUSTAINABLE CITIES AND COMMUNITIES  8 DECEMB WORK AND ECONOMIC ERROYTH



Socioeconomi advancement and empowermen	revitaliza tion	Projects that contribute     to growth in the number     of people engaging with     eastern Japan,     promotion of regional     economic revitalization	Decline of communities in rural areas due to population decline etc.	
Access to essential services (medical care	Medical care / Health ) care	Projects that contribute to resolving issues faced in Japan's medical care, such as the vulnerability of the medical system during infectious disease outbreaks and disasters, and the disparity in medical care between urban and rural areas	Access to essential services (medical)	3 GOUD HEALTH AND WELL-BEING  B DECENT WORK AND ECONOMIC GROWTH

Bolded sections in the table indicate green or social projects added by the revision of the Framework in December 2024.

- \*1 The relevance to the SDGs is based on Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals, published by ICMA, which sets out the Green Bond Principles, is complementary when issuing sustainability finance and is not directly associated with financing objectives.
- \*2 Among green projects, Overall rail transportation (sections of trains, trains powered by electric battery or hybrid train cars) and Solar, wind, hydroelectric power generation comply with the EU Taxonomy.

## **Principle One: Use of Proceeds:**

JR East plans to define projects that meet the Sustainability Bond Guidelines and other relevant principles in the Framework as sustainability (green and social) eligible projects and allocate the proceeds. These are projects that have a clear environmental or social impact, as exemplified by SBPs etc.

## **Principle Two: Process for Project Evaluation and Selection:**

JR East confirms that the projects meet the project eligibility requirements of Principle One, based on the established Framework. Specifically, projects are evaluated and selected based on the decision-making criteria set out in internal regulations and subject to internal approval procedures. These processes are consistent with Principle Two.

## **Principle Three: Management of Proceeds:**

JR East will manage the allocation of proceeds from the sustainability finance, etc. by the Finance and Investment Planning Department on a quarterly basis until the full amount has been allocated. Any unallocated proceeds will be managed in cash or cash equivalents and will be fully allocated within approximately two years of issuance. These procedures are consistent with Principle Three.

## **Principle Four: Reporting:**

JR East will, at least until the allocation of proceeds, disclose information relating to the allocation of proceeds, the progress of eligible projects and the actual or expected impact on environmental and social issues, on its website. These procedures are consistent with Principle Four.



## I. Introduction

## i. About the Issuer

JR East was established in 1987 following the division and privatization of Japan National Railways (JNR) and was the first of the seven JR companies, comprising six passenger companies and a freight company, to become fully privatized in 2002.

JR East and its group companies (hereinafter, the "JR East Group") operate business activities include "Transportation", "Retail and Services", "Real Estate and Hotels", and "Others" under the following group philosophy.

## JR East Group Philosophy

We will earn the trust of our customers as a whole group by aiming for ultimate safety levels as our top priority.

We will strengthen our network capabilities focusing on technologies and information, and we are committed to helping our customers and people in communities to realize affluent lives.



The JR East Group's business activities are as follows.

Table-2: Business activities of the JR East Group

Category	Business Description
Transportation	This business segment includes passenger transportation operations
	centered around railway operations, as well as travel agency services,
	cleaning services, railway station operations, construction and
	equipment installation, railcar manufacturing operations, and railcar
	maintenance operations.
Retail &	This business segment forms part of what JR East refers to as its
Services	"lifestyle services" business and includes retail sales and restaurant
	operations, as well as a wholesale business, a truck transportation
	business, and advertising and publicity.
Real Estate &	This business segment forms part of what JR East refers to as its
Hotels	"lifestyle services" business and includes shopping center operations,
	leasing of office buildings and other properties, hotel operations and
	development and sales of the real estate relating to these operations.
Others	This business segment represents categories of business that are not
	included in the aforementioned three segments, and includes the IT &



*Suica* business, which includes credit card operations, and the information processing operations.

JR East set out the Group's management vision "Move Up" 2027 in July 2018, to implement a renewed growth strategy by staying ahead of the changes in the business environment towards the fiscal year ending 31 March 2028. The Group intends to change its business model from providing services focused on railway infrastructure to creating people-focused values and services, and will aim to continue to create the values of "Trust" and "Affluence" in cities, regional areas, and around the world.

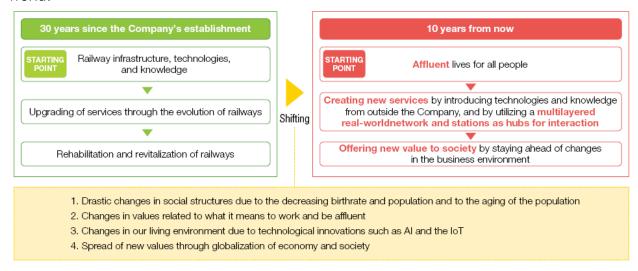


Figure-1 Basic policies of "Move Up" 2027

[Source: JR East News (3 July 2018) JR East Group Management Vision "Move Up" 2027]

## ii. Issuer's Initiatives for ESG

The JR East Group aims to develop local communities and achieve the Sustainable Development Goals (SDGs) by practising ESG management and solving social issues through its business activities.

## **ESG Management: Environment (E)**

In May 2020, JR East formulated a long-term environmental objective of achieving net zero\*1 CO<sub>2</sub> emissions in railway operations by 2051 ("Zero Carbon Challenge 2050") as a pillar of its ESG management practice and in October 2020 formalised this objective as the target of the Group. By pursuing this target, JR East Group will strive to promote efforts to contribute to the realization of a "decarbonized society," while aiming to further improve of its environmental friendliness and realize a sustainable society.



\*1 "Net zero" refers to achieving effectively zero CO<sub>2</sub> emissions by matching the amount emitted with the amount captured, reclaim, and use via leading-edge technologies.

## **ESG Management: Society (S)**

JR East Group's objective is to supply quality services to all customers, address and resolve local issues and achieve an affluent society.

Specifically, since its establishment, the Group has been focusing on realising railway services with passengers can feel safe and comfortable, and has expanded Shinkansen network as well as conventional lines in Kanto area network to make travel faster and more convenient for passengers, which helps to enhance the value of the area along railway lines.

The Group intends to expand its efforts further by introducing barrier free facilities at stations and in train cars and providing information in multiple languages, to accommodate a diverse range of customers and realize an environment in which all customers feel comfortable.

One of the pillars of "Move Up" 2027 is "Making regional areas more prosperous," and the entire Group will contribute to regional revitalization in the way that only the Group can. Until now, the Group has worked on regional revitalization in the fields of mobility and tourism with an emphasis primarily on railways. Going forward, though, the Group will aim to revitalize and enhance the attractiveness of local communities in a wide range of fields such as lifestyle services, and IT & Suica services. To that end, the Group will collaborate with external networks and local governments to uncover attractive local resources, as well as fuse digital with real-world strengths unique to the Group to provide value that focuses on each customer in line with changes in lifestyles and workstyles. In collaboration with local communities, the Group will undertake to meet local needs with companionable community development, cocreation with local startups, using DX to solve local issues, and building a sustainable transportation system for local lines.

## **ESG Management: Governance (G)**

With regard to governance, the Group will aim to pursue the aforementioned initiatives in as sustainable manner as possible. In addition, the Group will seek to continue to reduce potential risks with a view to achieving ultimate safety levels. This is the Group's top priority in business management. The Group will also strengthen compliance structures, and build governance structures that ensure the "safety" of business management itself.



Since the establishment of JR East, the Group has worked relentlessly to heighten its levels of safety. The Group's earnest efforts to learn from unfortunate accidents in the past have enabled it to prevent future accidents with its continued developments in both tangible and intangible aspects.

The Sustainability Strategy Committee, chaired by the president and representative director, oversees and makes decisions mainly regarding the establishment and progress of climate change targets, and the management of risks and opportunities. The committee includes the vice presidents, and executive directors as well as full-time corporate auditors, and outside directors also attend its meetings. The committee is held twice a year, and the Zero Carbon Working Group and Hydrogen Working Group report and discuss the progress of CO<sub>2</sub> emissions reductions and hydrogen utilization.

#### iii. Issuer's Environmental Initiatives

The JR East Group recognize energy as an integral part of the achievement of Zero Carbon Challenge 2050 and the implementation of ESG management, and aims to improve the "3E's" (Environment, Economic Efficiency, and Energy Security) of the Group's energy network that integrates "Create", "Deliver and Store", and "Use" in order to support the sustainable development of local communities. In July 2022, the JR East Group formulated "Energy Vision 2027—Connect," which presents the Group's energy strategy, which aims to realize a sustainable society and as a result to lead us



to continuous growth. The specific initiatives of "Energy Vision 2027—Connect" to be promoted throughout the JR East Group are organized as follows.

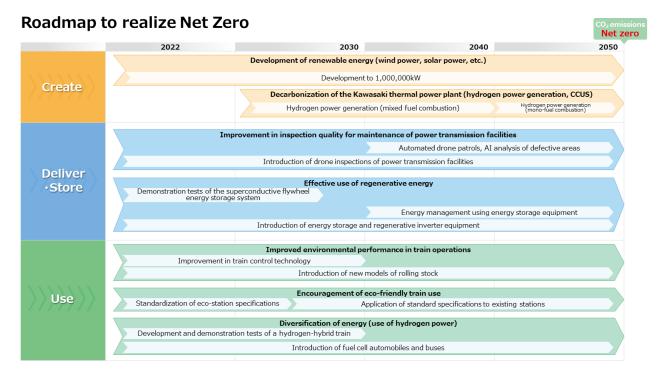


Figure-2 Energy Vision 2027 Roadmap

[Source: Extracted from JR East Group Energy Vision 2027]

## iv. Issuers' Initiatives for SDGs

In respect of the existing 17 SDGs, while seeking to create value under "Move Up" 2027, the Group will concentrate efforts on the realization of the following;

- ➤ Three top priority SDGs as the JR East Group consider it can leverage its business strength toward these goals:
  - 9. Industry, Innovation and Infrastructure;
  - 11. Sustainable Cities and Communities;
- Second priority:
  - 7. Affordable and Clean Energy;
  - 8. Decent Work and Economic Growth;
  - 5. Gender Equality;
  - 12. Responsible Consumption and Production; and
  - 17. Partnerships for the Goals.





## Values to Be Created under "Move Up" 2027

## Trust

We will further strengthen the trust of our customers and people in communities, which is the foundation for all JR East Group's businesses.

## Affluence

We will achieve affluent living for everyone and the sustainable development of regional society through all our businesses.

## **Practicing ESG management**

Striving to help resolve social issues through our businesses

## Materiality

- Providing Society with Safe, Reliable Infrastructure
- Creating a Vibrant Society
- Enriching the Global Environment
- Providing Society with Innovative Technologies and Services
- Increasing the Engagement of All Group Employees
- Improving Confidence in Management

Figure-3 Initiatives to achieve SDGs (Source: JR East website)



Table-3 Relationship between sustainability (green and social) projects and SDGs

Categ ory	GBP/SBP Category	Pro	ject/eligibility criteria	Relevant main environmental /social issues	Contribution to the SDGs*1
	Clean transportation  Climate change adaptation  Renewable energy  Green buildings	trains, train or hybrid tr  Solar, wind generation Businesses	Overall rail transportation (Sections of trains, trains powered by electric battery or hybrid train cars)*2  Solar, wind, hydroelectric power generation*2  Businesses including green buildings and and acquisition related to such buildings		11 SUSTAINABLE OTIES  AND CHAMBOURIES  13 CLIMATE  ACTION
Green	Pollution prevention and control  Environmentall y sustainable management of living natural resources and	Circular Economy  Nature Positivity	Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in plastic waste recycling     Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in food waste recycling     Expenditure related to the operation or maintenance of, or the financial investment in afforestation / initiatives aimed at harmonizing	Circular economy Biodiversity	12 RESPONSIBLE DINEARING TO AND PRODUCTION  COO  15 LIFE ON LAND
	land use, Terrestrial and aquatic biodiversity	Train cars	water use with the river environment / projects that contribute to biodiversity  Available space for		
Social	Affordable basic infrastructure  Socioeconomic advancement and empowerment	Railway facilities  Pedestria n walkways network	wheelchair passengers and accessible restrooms for wheelchair passengers  Install platform doors  Install barrier free bathroom  Install elevators for platform access by wheelchair passengers  Install safe and comfortable pedestrian walkways including various types of open spaces, rest spaces and lush excursion spaces for pedestrians to socialize and relax	Society in which all people can play active roles (realizing accessible society)	9 MUSTRY INVOVATION NO INTERSTRECTURE 11 SUSTAINABLE CITIES AND COMMINITIES  8 DECENT WORK AND ECONOMIC GROWTH



advand and	conomic Regional revitaliza tion	Projects that contribute to growth in the number of people engaging with eastern Japan, promotion of regional economic revitalization	Decline of communities in rural areas due to population decline etc.	
Access essenti service (medic	ial care /	Projects that contribute to resolving issues faced in Japan's medical care, such as the vulnerability of the medical system during infectious disease outbreaks and disasters, and the disparity in medical care between urban and rural areas	Access to essential services (medical)	3 GOOD HEALTH AND WILL-BEING  B DECENT WORK AND ECONOMIS GROWTH

Bolded sections in the table indicate green or social projects added by the revision of the Framework in December 2024.

- \*1 The relevance to the SDGs is based on Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals, published by ICMA, which sets out the Green Bond Principles, is complementary when issuing sustainability finance and is not directly associated with financing objectives.
- \*2 Among green projects, Overall rail transportation (sections of trains, trains powered by electric battery or hybrid train cars) and Solar, wind, hydroelectric power generation comply with the EU Taxonomy.

## v. About the Sustainability Finance Framework

JR East has positioned part of the financing to realize "Zero Carbon Challenge 2050" and "Move Up" 2027 initiatives as an opportunity to implement sustainability finance and communicate the initiatives of JR East and the JR East Group to its stakeholders. JR East has established the East Japan Railway Company Sustainability Finance Framework in order to carry out funds for in a manner that conform to the internationally recognized frameworks.

The Framework has been made available for use in JR East's future implementation of sustainability finance. The criteria which the Framework specifically referred to is described in (3) of Section II below.

Issuer Name: East Japan Railway Company

Framework Name: East Japan Railway Company Sustainability Finance Framework

Review Provider's Name: DNV Business Assurance Japan K.K.

Date of Report: 2 December 2024 (Revision 1)



## **II.** Scope and Objectives

DNV has been commissioned by JR East to provide an eligibility assessment of the "East Japan Railway Company Sustainability Finance Framework." Our objective has been to implement an assessment on whether JR East meets the SBG described below and other criteria such as GBP, SBP, and GBGL to provide a second party opinion on its eligibility.

DNV, as an independent external reviewer, has identified no real or perceived conflict of interest associated with the delivery of this second party opinion for JR East.

In this paper, no assurance is provided regarding the financial performance of the sustainability finance, the value of any investments in the sustainability finance, or the long-term environmental benefits of the transaction.

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The	review	assessed	the following	g elements and	confirmed their	alignment with	the gist of SBP:
		acceca		g cicilicito alla	committee chem	anginition tricin	cite giot or obi i

oxdot Management of Proceeds oxdot Reporting

## (2) Role(s) of review provider

$\boxtimes$	Second Party Opinion	Certification
	Verification	Rating

 $\Box$  Other (please specify):

## (3) Standards/guidelines to be applied

No.	Standards/guidelines	Scheme owner	Applied level*1*2
1.	Sustainability Bond Guidelines (SBG)	International Capital Market Association (ICMA), 2021	Apply
2.	Green Bond Principles (GBP)	International Capital Market Association (ICMA), 2021	Apply
3.	Social Bond Principles (SBP)	International Capital Market Association (ICMA), 2023	Apply
5.	Green Bond Guidelines (GBGL)*3	Ministry of the Environment, 2024	Apply
6.	Social Bond Guidelines (SBGL)	Financial Services Agency, 2021	Apply
7.	Green Loan Principles (GLP)	Loan Market Association (LMA) et.al., 2023	Apply
8.	Social Loan Principles (SLP)	Loan Market Association (LMA) et.al., 2023	Apply
9.	Green Loan Guidelines (GLGL)*4	Ministry of the Environment, 2024	Apply
10.	EU Taxonomy (Manufacturing) (Transport) (Energy)*5	European Commission	Apply
11.	Climate Bonds Standard 4.2v (Sector Criteria)	Climate Bonds Initiative, 2024	Refer (applicable technical criteria)



No.	Standards/guidelines	Scheme owner	Applied level*1*2
12.	Green and Social Bonds: A High-Level Mapping to the Sustainable Development Goals	International Capital Market Association (ICMA), 2022	Refer
13.	Handbook Harmonized Framework for Impact Reporting	International Capital Market Association (ICMA), 2020	Refer

- \*1 Apply: Eligibility for all four core common elements to each principle or guideline was assessed.
- \*2 Refer: Based on the green bond and implementation plans, relevant contents were partially considered.
- \*3 Officially, it is described as "Green Bond and Sustainability-Linked Bond Guidelines." Since the Green Bond portion is applied in this report, it is referred to as "Green Bond Guidelines."
- \*4 Officially, it is described as "Green Loan and Sustainability-Linked Loan Guidelines." Since the Green Loan portion is applied in this report, it is referred to as "Green Loan Guidelines."
- \*5 This report also provides additional opinions on the alignment with the EU Taxonomy criteria "Manufacturing" (Activity No. 3.19 "Manufacture of rolling stock constituents," No. 3.3 "Manufacture of low carbon technologies for transport"), "Transport" (Activity No. 6.1 "Passenger interurban rail transport," 6.14 "Infrastructure for rail transport"), and "Energy" (Activity No. 4.1 "Electricity generation using solar photovoltaic technology," 4.3 "Electricity generation from wind power," 4.5 "Electricity generation from hydropower").

## **III.** Responsibilities of East Japan Railway Company and DNV

JR East has provided the information and data used by DNV during the delivery of this review. DNV's second party opinion represents an independent opinion and is intended to inform JR East and other interested stakeholders in the bond as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by JR East. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by JR East's stakeholders and used as a basis for this assessment were not correct or complete.



## IV. Basis of DNV's Opinion

To provide as much flexibility for the fundraiser as possible, we have adapted our Sustainability Finance assessment methodologies, which incorporates the requirements of the SBG, GBP, SBP, GBGL, SBGL, GLP, SLP, and GLGL, to create an East Japan Railway Company Sustainability Finance Eligibility Assessment Protocol (hereinafter, "Protocol"). Please refer to Schedule-2. The Protocol is applicable to East Japan Railway Company Sustainability Finance under the SBG, GBP, SBP, GBGL, SBGL, GLP, SLP, and GLGL. DNV applied or referred to the relevant EU Taxonomy criteria and CBI technical standards to conduct the assessment of the Framework, in addition to the Protocol.

Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle behind the criteria is that the sustainability finance enables capital-raising and investment for new and existing projects with social and environmental benefits.

As per our Protocol, the criteria against which the sustainability finance has been reviewed are grouped into four elements bellow.

- **Principle One: Use of Proceeds:** The Use of Proceeds criteria are guided by the requirement that a fundraiser of a sustainability finance must use the funds raised to eligible activities. The eligible activities should produce clear environmental and social benefits.
- Principle Two: Process for Project Evaluation and Selection: The Process for
  Project Evaluation and Selection criteria are guided by the requirements that an issuer
  of a sustainability finance should outline the process it follows when determining
  eligibility of an investment using sustainability finance proceeds, and outline any
  impact objectives it will consider.
- Principle Three: Management of Proceeds: The Management of Proceeds criteria
  are guided by the requirements that a sustainability finance should be tracked within
  the fundraising organization, that separate portfolios should be created when
  necessary and that a declaration of how unallocated funds will be handled should be
  made.
- **Principle Four: Reporting:** The Reporting criteria are guided by the recommendation that at least Sustainability Reporting to the finance fundraisers should be made of the use of proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.



## V. Work Undertaken

Our work constituted a comprehensive review of the available information, based on the understanding that this information was provided to us by the fundraiser in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

## i. Pre-Fundraising Assessment of Sustainability Finance (Sustainability Finance Framework)

- Creation of a fundraiser-specific Protocol, adapted to the purpose of the sustainability finance, as described above and in Schedule-2 to this assessment;
- Assessment of documentary evidence provided by the fundraiser of the bond and supplemented assessment by a comprehensive desktop research. These checks refer to current assessment best practice and standards methodologies;
- Discussions with East Japan Railway Company, and review of relevant documentation;
- Documentation of findings against each element of the criteria.

## ii. Post-Fundraising Assessment of Sustainability Finance (\*not included in this report)

- Assessment of documentary evidence provided by the fundraiser after implementing the sustainability finance and supplemented assessment by a comprehensive desktop research;
- Interviews with East Japan Railway Company management, and review of relevant documentation;
- Field research and inspection (if necessary);
- Post-issuance review of target projects and assets (update of the content described in Schedule-1);
- Documentation of post-issuance observation results.



## VI. Findings and DNV's Opinion

DNV's findings and opinion are as described below.

## (1) Use of Proceeds

DNV has confirmed that the East Japan Railway Company Sustainability Finance Framework covers the following three types of finance, which are individually or collectively positioned as sustainability finance etc.

Table-4 Definitions of sustainability finance etc. as defined in the Framework

#	Category	Description
1	Green finance	Finance to fund projects that meet the Green Eligibility Criteria (set out below)
2	Social finance	Finance to fund projects that meet the Social Eligibility Criteria (set out below)
3	Sustainability finance	Finance to fund projects that meet either the Green Eligibility Criteria or the Social Eligibility Criteria

DNV has confirmed that JR East plans to allocate the net proceeds from sustainability finance, excluding expenses, as new investment and refinancing for the construction, installation, operation and maintenance of any or more of the candidate sustainability projects that meet the following representative eligible project categories, as indicated by GBP, GBGL, SBP, SBGL, etc.

- Clean transportation
- Climate change adaptation
- Renewable energy (solar, wind, hydroelectric power generation)
- Green building
- Pollution prevention and control
- Environmentally sustainable management of living natural resources and land use, Terrestrial and aquatic biodiversity
- Affordable basic infrastructure
- Socioeconomic advancement and empowerment
- Access to essential services (medical care)

Specifically, the projects targeted for allocation are the construction, installation, operation, maintenance, and investment of green or social projects as shown in Tables-5 and 7.

Project categories (and projects) shown in bold letters above have been added at the revision of the Framework in December 2024. DNV has conducted a sampling of interviews with the added project categories and projects, and has confirmed that all projects were appropriately evaluated and selected by JR East based on various criteria.

For green projects, the EU Taxonomy criteria will also be applied, where applicable (see Table-6).



DNV has confirmed that JR East has a process to ensure that the DNSH (Do No Significant Harm) criteria and minimum safeguards, in addition to the climate change mitigation and adaptation contribution criteria, are properly evaluated, and that measures are taken where necessary for projects subject to the EU Taxonomy criteria.



**Table-5 Green Projects (ICMA Compliance)** 

No.	Eligible Category	Eligible P	roject	Eligibility Criteria
1	Clean transportation	Overall rail transportation (Sections of trains, trains powered by electric battery or hybrid train cars)	Train cars	<ul> <li>Investments in relation to manufacturing or renovation of train cars powered by electricity</li> <li>Investments in relation to manufacturing or renovation of hybrid train cars with CO<sub>2</sub> emissions below 50g-CO<sub>2</sub>/person-km or 25g-CO<sub>2</sub>/ton-km</li> <li>Research and development of next-generation train cars such as hydrogen hybrid electric train cars</li> </ul>
			Railway facilities	Investment (capital expenditure) and expenses (operating expenditure) for the maintenance, renovation or renewal of railway equipment, tracks, signals, station buildings, rail yards and other essential facilities for railway operations
2	Climate change adaptation	Same as above (Overall rail transportatio n)	Railway facilities	Investment (capital expenditure)     and expenses (operating     expenditure) for disaster     countermeasures for railway     facilities to control damage and     maintain stable operations during     disasters such as typhoons
3	Renewable energy	Solar, wind, hydroelectric p generation	oower	Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in solar, wind, or hydroelectric power generation equipment
4	Green buildings	Green buildings and related land acquisition business		Projects that include buildings that meet Green Building Eligibility Criteria A or Green Building Eligibility Criteria B, each as set out below (excluding the acquisition of land with remaining environmental problems including soil



No.	Eligible Category	Eligible Project	Eligibility Criteria
			and water pollution): <green a="" building="" criteria="" eligibility=""> A building that has obtained or renewed any of the following building certifications within 36 months prior to the launch of the relevant Sustainability Finance, or a building which is expected to obtain or renew the following building certifications in the future  • S or A ranked CASBEE (cf the Glossary bellow) construction (new, existing or renewed) or CASBEE real estate (including CASBEE issued by local municipalities)  • Platinum or Gold certified under LEED (cf the Glossary bellow) - BD+C (Building Design and Construction) or LEED-O+M (Building Operations and Maintenance)  • Six star construction under BELS (FY2024, cf the Glossary bellow)  • Five star or Four star construction under DBJ Green Building Certification (cf the Glossary bellow)  <green b="" building="" criteria="" eligibility=""> A building that has a CO2 reduction effect greater than the mandatory reduction rate for standard emissions set by government or local authorities in the most recent fiscal year and either (a) achieves a top 15% CO2 reduction performance in the area where the project is located or (b)</green></green>
L			achieves a 30% CO <sub>2</sub> reduction effect.



No.	Eligible Category	Eligible Project	Eligibility Criteria
5	Pollution prevention and control	Circular Economy	<ul> <li>Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in plastic waste recycling</li> <li>Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in food waste recycling</li> </ul>
6	Environmental ly sustainable management of living natural resources and land use, Terrestrial and aquatic biodiversity	Nature Positivity	Expenditure related to the operation or maintenance of, or the financial investment in afforestation / initiatives aimed at harmonizing water use with the river environment / projects that contribute to biodiversity

## **Table-6 Green Projects (EU Taxonomy Compliance)**

No.	Projects	Activities on EU Taxonomy	Environmental objectives expected to be contributed	Overviews of projects complied with EU Taxonomy
1	Overall rail transportation (Sections of trains, trains powered by electric battery or	6.1 "Passenger interurban rail transport"	Climate change mitigation	Direct zero emission train cars that meet the climate change mitigation criteria of "Passenger interurban rail transport" in EU Taxonomy 6.1



No.	Projects	Activities on EU Taxonomy	Environmental objectives expected to be contributed	Overviews of projects complied with EU Taxonomy
2	hybrid train cars)	3.19 "Manufacture of rail rolling stock constituents"	Climate change mitigation	Essential installation of equipment for safe and stable transportation of direct zero emission train cars that meet the climate change mitigation criteria of "Manufacture of rail rolling stock constituents" in EU Taxonomy 3.19
3		3.3 "Manufacture of low carbon technologies for transport"	Climate change mitigation	Maintenance and renovation of direct zero emission train cars that meet the climate change mitigation criteria of "Manufacture of low carbon technologies for transport" in EU Taxonomy 3.3
4		6.14 "Infrastructure for rail transport"	Climate change mitigation, Climate change adaptation	Railway facilities for essential economic activity to increase (reinforce) and maintain the resilience against natural disaster in direct zero emission trains operation area that meets climate mitigation and adaptation criteria of "Infrastructure for rail transport" in EU Taxonomy 6.14



No.	Projects	Projects Activities on EU Taxonomy		Overviews of projects complied with EU Taxonomy	
5	Solar, wind, hydroelectric power generation	4.1 "Electricity generation using solar photovoltaic technology"	Climate change mitigation	Electric generation using solar PV technology that meets climate mitigation criteria of "Electricity generation using solar photovoltaic technology" in EU Taxonomy 4.1	
6		4.3 "Electricity generation from wind power"	Climate change mitigation	Electric generation using wind power technology that meets climate mitigation criteria of "Electricity generation from wind power" in EU Taxonomy 4.3	
7		4.5 "Electricity generation from hydropower"	Climate change mitigation	Electric generation using hydropower technology that meets climate mitigation criteria of "Electricity generation from hydropower" in EU Taxonomy 4.5	

## Use of Proceeds categories as per GBP

$\boxtimes$	Renewable energy		Energy efficiency (energy saving)
	Pollution prevention and control		Sustainable management of living natural resources
	Terrestrial and aquatic biodiversity conservation		Clean transportation
	Sustainable water management		Climate change adaptation
	Eco-efficient products, production technologies and processes		Green buildings with regional, national or internationally recognized standards and certifications
	Other (please specify):		
	It is undecided at the time of fundraising, but is expected to be in line with the GBP/GLP classification or other eligible areas not listed in the GBP/GLP at this time.		



**Table-7 Social Projects (ICMA Compliance)** 

No.	SBP Category	Pro	ojects, Eligibility Criteria	Target Population
1	Affordable basic infrastructure	Train cars	<ul> <li>Available space for wheelchairs passengers</li> <li>Accessible restrooms for wheelchair passengers</li> </ul>	Persons with disabilities, Senior, Pregnant, Children and
2	Socioeconomic advancement and empowerment	Railway facilities	<ul> <li>Install platform doors*1</li> <li>Install barrier free bathroom*1</li> <li>Install elevators for platform access by wheelchair passengers*1</li> </ul>	families with children, All railway users including above
		Pedestrian walkways network	Install safe and comfortable pedestrian walkways including various types of open spaces, rest spaces and lush excursion spaces for pedestrians to socialize and relax	Local companies, Residents, All facility users including above
3	Socioeconomic advancement and empowerment	Regional revitalizati on	<ul> <li>Projects that contribute to growth in the number of people engaging with eastern Japan, promotion of regional economic revitalization</li> </ul>	Local residents, All facility users
4	Access to essential services (medical care)	Medical care / Health care	Projects that contribute to resolving issues faced in Japan's medical care, such as the vulnerability of the medical system during infectious disease outbreaks and disasters, and the disparity in medical care between urban and rural areas	Patients, Medical personnel involved in patient treatment, All people including other vulnerable groups

<sup>\*1</sup> Of the social projects listed above, "Install platform doors," "Install barrier free bathroom," and "Install elevators for platform access by wheelchair passengers" also fall under green projects in accordance with the EU Taxonomy 6.14 "Infrastructure for Rail Transport."



DNV assessed the appropriateness of the social projects No.1 and No.2 and its eligibility criteria through in-depth interviews and the sharing of documentation and information, as this social project can be seen as an initiative to meet the requirements of the Act on Promotion of Smooth Transportation, etc. of Elderly Persons, Disabled Persons, etc. (Barrier Free Act)<sup>(\*2)</sup> As a result of the assessment, DNV determined the eligibility of the social project as stipulated in the Framework by JR East based on the rationale set out in paragraphs a-c below.

(\*2) Initiatives that meet the requirements of existing laws, regulations and ordinances on which the implementation of the project is based, or those that are judged as Business As Usual (BAU), are not generally recognized as eligible social projects. (However, this may not apply if the project includes responses to social issues that could not be covered by conventional initiatives or to new social issues, such as responses to newly enacted laws, regulations and ordinances, or if the project is clearly judged as beyond BAU.)

#### a. Relevance to the SDGs

Each project relates to public transportation and the surrounding environment, and is considered as essential foundation for realizing a society where no one is left behind, which is the basic principle of the SDGs, and is closely related to the following issues among the eight priorities set out by the Government.

- People: Infection Control and Building a Foundation for the Future
  - (1) Realization of gender equality and a society where **every person** can play an active role
  - (2) Achievement of good health and longevity
- Prosperity: Virtuous Cycle of Growth and Distribution
  - (3) Creating growth markets, <u>revitalization of rural areas</u>, and promoting science technology and innovation
- Planet: Contributing to the Future of the Earth
  - (4) Sustainable and resilient land use, promoting quality infrastructure
  - (5) Energy conservation and renewable energy, disaster risk reduction and climate change countermeasures, sound material-cycle society
  - (6) Conservation of biodiversity, forests, and oceans, and other environments
  - (Note) Extracted from the Japanese Government's "SDGs Action Plan 2022" with underlined bold characters indicating areas where the eligible social projects identified by JR East are relevant and are expected to make a particular contribution.

## b. Current social situation etc.

In view of the rapidly declining birth rate and aging population in Japan, which are the background to the enactment of the Barrier Free Act, it is considered that there is an urgent need for accessible public transportation, etc. However, as the demand for public transportation is on the decline due to the impact of the coronavirus disease and there are many uncertainties regarding the future situation, urgent realization of accessibility is needed in consideration of post-pandemic society, which may be a significant burden for railway business operators.



c. Eligibility criteria beyond compliance

The eligibility criteria for pedestrian networks should include open spaces, a variety of rest spaces, green spaces, etc. and go beyond compliance (to the best effort set out by the law).

In addition, DNV has judged that the social projects No.3 and No.4, which were added in December 2024, address social issues facing Japan, such as community decline and economic stagnation due to population decline in rural areas, and the vulnerability of the medical system during infectious disease outbreaks and large-scale disasters, and that these projects are sufficiently social in nature.

## Use of Proceeds categories as per SBP

$\boxtimes$	Affordable basic infrastructure	$\boxtimes$	Access to essential services
	Affordable housing		Job creation (SME financing and microfinance)
	Food security and sustainable food system		Socioeconomic advancement and empowerment
	Areas that are considered to fit the SBP classification or are not listed in the SBP but are eligible		Other (please specify):



## (2) Process for Project Evaluation and Selection

Through the review, DNV has confirmed that JR East's Finance and Investment Planning Department will select nominated sustainability projects that meet the criteria set forth in Schedule-1 and conduct an eligibility assessment of the project, including a comprehensive analysis and review of financial, technical and operational, market environment, and ESG risks, and that the Director of Finance and Investment Planning will make the final decision.

As for the environmental and social impact of investments and business operations, under the management of the Corporate & Legal Strategies Department, DNV has confirmed that the Group company/department in charge of the project identifies and assesses risks in line with the company-wide risk management system before the implementation of investment or business to reduce risks or take other measures where necessary, and that a system has been established to ensure that proceeds of sustainability finance, etc. are not allocated to projects related to the following:

 Transactions that do not comply with the laws and regulations of the country in which they take place, including laws in relation to unfair business practices, bribery, corruption, extortion and embezzlement

#### **Evaluation and Selection**

- □ Conforms to the issuer's achievement of environmental / social contribution goals
- □ The project is eligible for use of proceeds
   by sustainability finance and transparency
   is ensured
- ☐ The project is evaluated and selected based on the published standard summary
- Documented process to determine that projects fit within defined categories
- □ Documented process to identify and manage potential ESG risks associated with the project
- $\Box$  Other (please specify):

## Information on Responsibilities and Accountability

- Evaluation / Selection criteria subject to external advice or verification
- $\square$  Other (please specify):

☑ In-house assessment



## (3) Management of Proceeds

DNV has confirmed how JR East will track and manage the proceeds from fundraising to redemption/repayment period. DNV has confirmed that JR East plans to allocate the proceeds to financing (new investment and financing) and refinancing to the eligible projects in a timely manner after raising the proceeds.

DNV has confirmed that the allocation status of the proceeds will be managed by the manual on a quarterly basis in accordance with the JR East's internal manual. The proceeds of sustainability finance, etc. will be managed in cash or cash equivalents until they are allocated, and the allocation is expected to be completed within approximately two years from the issuance.

## **Tracking of Proceeds:**

X	Some or all of the proceeds by sustainability finance that are planned to be allocated are
	systematically distinguished or tracked by the issuer.
$\boxtimes$	Disclosure of intended types of temporary investment instruments for unallocated proceed
	Other (please specify):

#### Ad

lditional Disclosure:						
	Allocations to future investments only	$\boxtimes$	Allocations to both existing and future investments			
$\boxtimes$	Allocation to individual disbursements		Allocation to a portfolio of disbursements			
	Disclosure of portfolio balance of unallocated proceeds		Other (please specify): The amount of existing financing and new investments/financing in projects eligible for green bond allocations will be disclosed in the annual report.			



## (4) Reporting

DNV has confirmed that JR East will report specific information related to sustainability finance required by the GBP, GBGL, SBP, SBGL, etc in its website once a year.

Annual reports will be made on the allocation status of proceeds and the social and environmental benefits, as described below, until the proceeds are fully allocated. In addition, a part or all of the following items related to social and environmental benefits are planned to be disclosed on a project basis, within the limits of confidentiality and as far as is reasonably practicable. Estimated indicator values and the progress of the project will be disclosed until the commencement of the project. It is also planned to disclose any material changes in the projects during the redemption or repayment period in a timely manner.

#### <Allocation Status>

- Allocated amount on a project basis
- Unallocated amount of proceeds
- Amount of proceeds allocated as refinancing

## <Environmental and Social Benefits>

**Table-8 Green Eligible Projects** 

#	Green Category	Eligible Projects	Examples of reporting content on environmental benefits
1	Clean transportation	Overall rail transportation (Sections of trains, trains powered by electric battery or hybrid train cars)	<ul> <li>CO<sub>2</sub> emissions stemming from railway operations (g-CO<sub>2</sub>/person-km)</li> <li>Train cars&gt;</li> <li>Record of introducing train cars</li> <li>Energy-saving by using VVVF inverter, etc.</li> <li>Energy-saving by using LED lighting (vs. conventional fluorescent lighting)</li> <li>Details of R&amp;D investment</li> </ul>
			<railway facilities=""></railway>
			<ul> <li>Details of maintenance, renovation and renewal of essential facilities to operate</li> </ul>



#	Green Category	Eligible Projects	Examples of reporting content on environmental benefits
			railways, including tracks, signals, station buildings and railyards
2	Climate change adaptation	Same as above (Overall rail transportation)	<railway facilities=""> <ul><li>Details of investment in disaster</li><li>countermeasure for the railway facility</li></ul></railway>
3	Renewable energy	Solar, wind, hydroelectric power generation	<ul> <li>Overview of renewable energy project         (Name of the project, location, output capacity, etc.)</li> <li>Power generation (kWh)</li> <li>Impact of CO<sub>2</sub> emissions reduction</li> </ul>
4	Green buildings	Green buildings and related land acquisition business	<eligible a="" green="" project=""> <ul> <li>Overview of the building</li> <li>Type and rank of environmental certifications obtained</li> <li>Primary energy consumption</li> <li>CO<sub>2</sub> Emissions</li> <li>Eligible Green Project B&gt;</li> <li>Overview of the building</li> <li>CO<sub>2</sub> reduction rate</li> <li>Primary energy consumption</li> <li>CO<sub>2</sub> Emissions</li> </ul></eligible>
5	Pollution prevention and control	Circular Economy	<ul><li>Project overview</li><li>Waste volume (ton)</li><li>Recycling results (various recycling rates etc.)</li></ul>
6	Environmentally sustainable management of living natural resources and land use, Terrestrial and aquatic biodiversity	Nature Positivity	<ul> <li>Project overview</li> <li>Tree planting results (number of trees, area, etc.)</li> </ul>



**Table-9 Social Eligible Projects** 

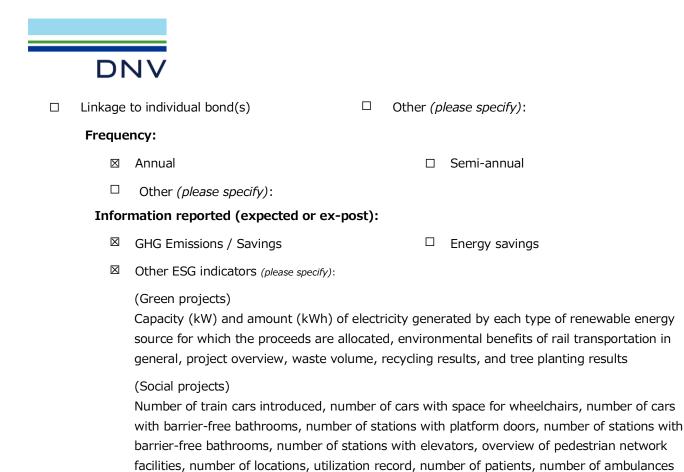
#	Social Category	Eligible Projects	Output	Outcome	Impact
1	Affordable basic infrastruct ure  Socioecono mic advanceme nt and empowerm ent	Train cars  Railway facilities	<ul> <li>Number of train cars introduced</li> <li>Number of cars with space for wheelchairs</li> <li>Number of cars with barrier-free bathrooms</li> <li>Number of stations with platform doors</li> <li>Number of stations with barrier-free bathrooms</li> <li>Number of stations with stations with barrier-free bathrooms</li> <li>Number of stations with</li> </ul>	<ul> <li>Ensure mobility opportunities for the socially vulnerable</li> <li>Improve safety and comfort for all railway users</li> </ul>	Contribute to the realization of a truly symbiotic society by promoting barrier-free access
2		Pedestria n walkways network	elevators  · Overview of pedestrian network facilities	Improve safety and comfort for local companies, residents and users	· Sustainable and resilient national land (promoting sustainable community development)
3	Socioecono mic advanceme nt and empowerm ent	Regional revitalizat ion	<ul><li>Number of locations</li><li>Utilization record</li></ul>	<ul> <li>Revitalization of the communities of local residents and users</li> <li>Revitalization of local industries</li> <li>Revitalization of the regional economy</li> <li>Expansion of related population</li> </ul>	Population recovery and economic recovery revival in rural areas     Realization of a "affluent lives"
4	Access to essential services	Medical care /	· Number of patients	<ul> <li>Reinforcement of the patient acceptance system</li> </ul>	Reinforcemen     t of response     capabilities



(medical care)	Health care	<ul> <li>Number of ambulances accepted</li> <li>Introduced equipment</li> <li>Number of online medical centers</li> </ul>	<ul> <li>Expansion of emergency medical services</li> <li>Improvement of patient access to medical services</li> <li>Enhancement of the working environment for medical workers</li> </ul>	infectious disease outbreaks and disasters Resolution of social issues such as the containment of the increase in social insurance costs, the maintenance of essential infrastructure services in rural areas and the reform of physicians' work
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## **Use of Proceeds reporting:**

$\boxtimes$	Projec	t-by-project			On a project portfolio basis
	Linkage to individual bond(s)				Other (please specify):
	Infor	mation reported:			
	$\boxtimes$	Allocated amounts			GB financed share of total investment
	$\boxtimes$	$^oxtimes$ Other (please specify): Unallocated amount of proceeds and the amount allocated to refina			oceeds and the amount allocated to refinancing
	Frequency:				
		Annual			Semi-annual
		Other (please specify):			
Impact Reporting (Environmental / Social benefits):					
$\boxtimes$	Projec	t-by-project		On	a project portfolio basis



## **Means of Disclosure**

Information published in financial report		Information published in sustainability report			
Information published in ad hoc documents	$\boxtimes$	Other (please specify): JR East website			
Reporting reviewed (if yes, please specify which parts of the reporting are subject to external					
review): Review by DNV will be obtained before one year has passed since the green bond issuance					
and annually thereafter until the sustainability finance etc. has been allocated.					

accepted, introduced equipment, and number of online medical centers

#### (5) External Review

In order to increase certainty (consistency) and objectivity that the sustainability finance continuously complies with the relevant criteria, the fundraiser will obtain a review by DNV before one year has passed since the implementation of the sustainability finance, etc. and annually thereafter until the sustainability finance etc. has been allocated.



## **Assessment Conclusion**

On the basis of the information provided by JR East and the work undertaken, it is DNV's opinion that the JR East meets the criteria established in the Sustainability Finance Eligibility Assessment Protocol, and that it is aligned with the following stated definition or purpose of sustainability bond within the SBG and relevant criteria, which is to "enable capital-raising and investment for new and existing projects with social and environmental benefits."

DNV Business Assurance Japan K.K.

Thomas Leonard

2 December 2024

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#### **About DNV**

Driven by our purpose of safeguarding life, property and the environment, DNV enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight.

With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

#### Disclaimer

Responsibilities of the Management of the Fundraiser and the Second-Party Opinion Providers, DNV: The management of Fundraiser has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform the Fundraiser management and other interested stakeholders in the Bond as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by the Fundraiser. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by the Fundraiser's management and used as a basis for this assessment were not correct or complete



### **Schedule-1 Sustainability Finance etc. Nominated Projects**

The green and social projects listed in the table are candidate projects before implementation of finance (as of November 2024). In the future, in green/social/sustainability finance executed under the JR East Sustainability Finance Framework, one or more of the eligible projects listed in Schedule-1 will be selected and reported as the use of proceeds in a report before or after the implementation of finance. If the additional green/social/sustainability projects are included, JR East will evaluate the eligibility in advance in a process based on the framework. If necessary, DNV will conduct the evaluation in a timely manner.

**Green Projects (ICMA Compliance)** 

No.	Green Elig	gible Project		Project Overview	<b>Expected Environmental</b>
NO.	Category	Small Category		Froject Overview	Contribution
1	Clean transportation	Overall rail transportation (Sections of trains, trains powered by electric battery or hybrid train cars)	Train cars Railway facilities	<ul> <li>Investments in relation to manufacturing or renovation of train cars powered by electricity</li> <li>Investments in relation to manufacturing or renovation of hybrid train cars with CO<sub>2</sub> emissions below 50g-CO<sub>2</sub>/person-km or 25g-CO<sub>2</sub>/ton-km</li> <li>Research and development of next-generation train cars such as hydrogen hybrid electric train cars</li> <li>Investment (capital expenditure) and expenses (operating expenditure) for the maintenance, renovation or renewal of railway equipment, tracks, signals, station buildings, rail yards and other essential facilities for railway operations</li> </ul>	Reduction of greenhouse gas emissions from railway operations
2	Climate change adaptation	Same as above (Overall rail transportation)	Railway facilities	<ul> <li>Investment (capital expenditure) and expenses (operating expenditure) for disaster countermeasures for railway facilities to control damage and maintain stable operations during disasters such as typhoons</li> </ul>	Response to climate change

No	No. Green Eligible Project		Project Overview	<b>Expected Environmental</b>
NO.	Category	Small Category	Project Overview	Contribution
3	Renewable energy	Solar, wind, hydroelectric power generation	<ul> <li>Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in solar, wind, or hydroelectric power generation equipment</li> </ul>	Reduction of greenhouse gas emissions through the adoption of renewable energy sources
4	Green buildings	Green buildings and related land acquisition business	Projects that include buildings that meet Green Building Eligibility Criteria A or Green Building Eligibility Criteria B, each as set out below (excluding the acquisition of land with remaining environmental problems including soil and water pollution): <green a="" building="" criteria="" eligibility=""> A building that has obtained or renewed any of the following building certifications within 36 months prior to the launch of the relevant Sustainability Finance, or a building which is expected to obtain or renew the following building certifications in the future  • S or A ranked CASBEE (cf the Glossary bellow) construction (new, existing or renewed) or CASBEE real estate (including CASBEE issued by local municipalities)  • Platinum or Gold certified under LEED (cf the Glossary bellow) - BD+C (Building Design and Construction) or LEED-O+M (Building Operations and Maintenance)  • Six star construction under BELS (FY2024, cf the Glossary bellow)  • Five star or Four star construction under DBJ Green Building Certification (cf the Glossary bellow)  <green b="" building="" criteria="" eligibility=""> A building that has a CO2 reduction effect greater than the mandatory reduction rate for standard emissions set by government</green></green>	Reduction of greenhouse gas emissions by improving the efficiency of energy used in buildings

No.	Green Eligible Project		Project Overview	<b>Expected Environmental</b>
NO.	Category Small Category		Project Overview	Contribution
			or local authorities in the most recent fiscal year and either (a) achieves a top $15\%$ CO $_2$ reduction performance in the area where the project is located or (b) achieves a $30\%$ CO $_2$ reduction effect.	
5	Pollution prevention and control	Circular Economy	<ul> <li>Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in plastic waste recycling</li> <li>Expenditure related to the construction, installation, operation or maintenance of, or the financial investment in food waste recycling</li> </ul>	Circular economy
6	Environmentally sustainable management of living natural resources and land use, Terrestrial and aquatic biodiversity	Nature Positivity	<ul> <li>Expenditure related to the operation or maintenance of, or the financial investment in afforestation / initiatives aimed at harmonizing water use with the river environment / projects that contribute to biodiversity</li> </ul>	Biodiversity

**Green Projects (EU Taxonomy Compliance)** 

No.	Green Eligible Projects	Activities on EU Taxonomy	Environmental objectives expected to be contributed	Overviews of projects complied with EU Taxonomy
E-1		6.1 "Passenger interurban rail transport"	Direct zero emission train cars that meet the climate change mitigation criteria of "Passenger interurban rail transport" in EU Taxonomy 6.1	Climate change mitigation
E-2	Overall rail transportation	3.19 "Manufacture of rail rolling stock constituents"	Essential installation of equipment for safe and stable transportation of direct zero emission train cars that meet the climate change mitigation criteria of "Manufacture of rail rolling stock constituents" in EU Taxonomy 3.19	Climate change mitigation
E-3	(Sections of trains, trains powered by electric battery or hybrid train cars)	3.3 "Manufacture of low carbon technologies for transport"	Maintenance and renovation of direct zero emission train cars that meet the climate change mitigation criteria of "Manufacture of low carbon technologies for transport" in EU Taxonomy 3.3	Climate change mitigation
E-4		6.14 "Infrastructure for rail transport"	Railway facilities for essential economic activity to increase (reinforce) and maintain the resilience against natural disaster in direct zero emission trains operation area that meets climate mitigation and adaptation criteria of "Infrastructure for rail transport" in EU Taxonomy 6.14	Climate change mitigation, Climate change adaptation
E-5	Solar, wind, hydroelectric power generation	4.1 "Electricity generation using solar photovoltaic technology"	Electric generation using solar PV technology that meets climate mitigation criteria of "Electricity generation using solar photovoltaic technology" in EU Taxonomy 4.1	Climate change mitigation

No.	Green Eligible Projects	Activities on EU Taxonomy	Environmental objectives expected to be contributed	Overviews of projects complied with EU Taxonomy
E-6		4.3 "Electricity generation from wind power"	Electric generation using wind power technology that meets climate mitigation criteria of "Electricity generation from wind power" in EU Taxonomy 4.3	Climate change mitigation
E-7		4.5 "Electricity generation from hydropower"	Electric generation using hydropower technology that meets climate mitigation criteria of "Electricity generation from hydropower" in EU Taxonomy 4.5	Climate change mitigation

**Social Projects (ICMA Compliance)** 

	Social Eligible Project		Project Overview		ed Social Contribution
No.	Category Small Category	Small Project Overview		Beneficiary	Contribution to Society
		Train cars	<ul> <li>Available space for wheelchairs passengers</li> <li>Accessible restrooms for wheelchair passengers</li> </ul>	<ul><li>Persons with disabilities</li><li>Senior</li><li>Pregnant</li></ul>	Contribute to the realization of a truly symbiotic society by promoting barrier-free access
1	Affordable basic infrastructure  Socioeconomic advancement and empowerment	Railway facilities	<ul> <li>Install platform doors</li> <li>Install barrier free bathroom</li> <li>Install elevators for platform access by wheelchair passengers</li> </ul>	<ul> <li>Children and families with children</li> <li>All railway users including above</li> </ul>	
2		Pedestrian walkways network	Install safe and comfortable pedestrian walkways including various types of open spaces, rest spaces and lush excursion spaces for pedestrians to socialize and relax	<ul><li>Local companies</li><li>Residents</li><li>All facility users including above</li></ul>	Sustainable and resilient national land (promoting sustainable community development)
3	Socioeconomic advancement and empowerment	Regional revitalization	<ul> <li>Projects that contribute to growth in the number of people engaging with eastern Japan, promotion of regional economic revitalization</li> </ul>	<ul><li>Local residents</li><li>All facility users</li></ul>	<ul><li>Population recovery and economic recovery revival in rural areas</li><li>Realization of a "affluent lives"</li></ul>

No	Social Eligible Project		Project		Expected Social Contribution		
No.	Category	Small Category		Project Overview	Beneficiary	Contribution to Society	
4	Access to services car	(medical	Medical care / Health care	<ul> <li>Projects that contribute to resolving issues faced in Japan's medical care, such as the vulnerability of the medical system during infectious disease outbreaks and disasters, and the disparity in medical care between urban and rural areas</li> </ul>	<ul> <li>Patients</li> <li>Medical personnel involved in patient treatment</li> <li>All people including other vulnerable groups</li> </ul>	<ul> <li>Reinforcement of response         capabilities during infectious disease         outbreaks and disasters</li> <li>Resolution of social issues such as         the containment of the increase in         social insurance costs, the         maintenance of essential         infrastructure services in rural areas         and the reform of physicians' work</li> </ul>	



#### **Schedule-2 Sustainability Finance Eligibility Assessment Protocol**

The following checklists  $(1)\sim(4)$  are DNV assessment protocol developed for the East Japan Railway Company Sustainability Finance Eligibility Assessment based on the requirements of the SBG, GBP, SBP, and GBGL. The "Confirmed documents" in the Work Undertaken includes internal documents etc. of the fundraiser, which are provided by JR East to DNV as evidence for the eligibility judgment.

The East Japan Railway Company Sustainability Finance Framework and statutory documents listed in the table will be published separately as investor explanatory documents.

#### (1) Use of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	Type of finance	The Sustainability Finance must fall in one of the following categories, as defined by SBP and GBP.  - (Standard) Sustainability Finance - Sustainability Revenue Finance - Sustainability Project Bond - Sustainability Security Finance	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework  Interviews with stakeholders	Based on the documentation review and consultations, DNV has confirmed that the bond falls into the category below:  (Standard) Sustainability Bond
1b	Project categories	The cornerstone of a Sustainability Finance is the utilization of the proceeds of the finance which should be appropriately described in the legal documentation for the security.	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework Interviews with stakeholders	DNV has confirmed that the JR East's sustainability projects etc. identified in the framework fall into the following representative green and social eligible categories as classified in the GBP and SBP. <green projects="">  - Clean transportation (overall rail transportation)  - Climate change adaptation (overall rail transportation)  - Renewable energy (solar, wind, hydroelectric power generation)  - Green buildings</green>



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<ul> <li>Pollution prevention and control</li> <li>Environmentally sustainable management of living natural resources and land use, Terrestrial and aquatic biodiversity</li> <li>Social Projects&gt;</li> <li>Affordable basic infrastructure (train cars, railway facilities, pedestrian walkways network)</li> <li>Socioeconomic advancement and empowerment</li> <li>Access to essential services (medical care)</li> </ul>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1c	Environment al and social benefits	All designated Sustainability Project categories should provide clear greenly and/or social benefits, which, where feasible, will be quantified or assessed by the fundraiser.	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework  Interviews with stakeholders	DNV has confirmed that the green projects contribute to the reduction of CO <sub>2</sub> emissions from business, formation of a circular society, biodiversity, etc.  As for the sustainability project, DNV assessed it as having benefits to improve social issues as follows.  The social project No.1 has sufficient benefits to improve social issues as it enhances the convenience of public transportation (railways) for a wide range of railway users, including the elderly and wheelchair users, taking into account the background to the enactment of the relevant legislation (Barrier Free Act) and the actual implementation state of accessible/universal design.  The social project No.2 and No.3 have benefits to improve social issues recognized by the government, such as community decline and economic stagnation due to population decline in rural areas, vulnerability to infectious disease outbreaks, and disparities in medical care between urban and rural areas.
1d	Refinance share	In the event that a proportion of the proceeds may be used for refinancing, it is recommended that fundraiser provide an estimate of the share of financing vs. refinancing, and where appropriate, also clarify which investments or project portfolios may be refinanced.	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework  Interviews with stakeholders	DNV has confirmed that if the proceeds (excluding expenses) of sustainability finance, etc. are used for refinancing, JR East will include the allocation amount on a project basis and the amount allocated as refinancing in the disclosure information on the allocation status published on its website.



## (2) Process for Project Evaluation and Selection

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2a	Investment decision process	The fundraiser of a Sustainability Finance should outline the decision-making process it follows to determine the eligibility of projects using Sustainability Finance proceeds. This includes, without limitation:  • A process to determine how the projects fit within the eligible Sustainability (Green and Social) Projects categories identified in the Sustainability Finance Principles;  • The criteria making the projects eligible for using the Sustainability Finance proceeds; and  • The sustainability objectives for green and social	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework  Interviews with stakeholders	<ul> <li>DNV has confirmed that JR East will select eligible projects for sustainability finance, etc. in accordance with the framework and internal regulations.</li> <li>Specifically, the procedure is as follows:         <ul> <li>The Finance and Investment Planning Department selects eligible projects and the Director in charge of Finance and Investment Planning gives approvals.</li> <li>In assessing the eligibility of the projects, a comprehensive analysis and consideration of financial, technical, operational and market environment, and ESG risks is undertaken.</li> </ul> </li> </ul>
2b	Fundraiser's environmental and social governance framework	In addition to criteria and certifications, the information published by fundraiser regarding the Sustainability finance process is also considered the quality of performance of the fundraiser's framework and environmental and social sustainability.	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework Interviews with stakeholders	DNV has confirmed, through the assessment in documentation and interviews, that the planned sustainability finance, etc. is in line with the JR East's business and environmental initiatives such as "Move Up" 2027, "Energy Vision 2027—Connect," "Zero Carbon Challenge 2050," etc., and is closely related to the business and environmental sustainability.



## (3) Management of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
3a	Tracking procedure- 1	Proceeds for funds raised through Sustainability Finance should be managed in sub-accounts, incorporated into sub-portfolios, or tracked by other appropriate means. They should also be evidenced by the fundraiser in a formal internal process related to the fundraiser's investment and financing operations for sustainability projects.	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework  Interviews with stakeholders	DNV has confirmed that JR East manages the proceeds of sustainability finance, etc. in cash or cash equivalents, and that the allocation status is managed by the Finance and Investment Planning Department on a quarterly basis until the proceeds are fully allocated. The system for managing the allocation status is stipulated in the Sustainability Reporting Manual (internal document).
3b	Tracking procedure- 2	In the period for which Sustainability Finance is to be managed, the balance of the tracked proceeds should be periodically adjusted by amounts matching eligible project investments or loan disbursements made during that period.	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework  Interviews with stakeholders	DNV has confirmed that the allocation status of proceeds (allocated amount and balance) is managed and adjusted according to the above procedure. DNV has also confirmed that JR East plans to use the codes registered in the accounting system to manage expenditure on eligible projects, track the allocation status in a separate spreadsheet and manage the unallocated and allocated proceeds on a quarterly basis using a balance sheet.
3c	Temporary holdings	Pending such investments or disbursements to eligible Sustainability Projects, the fundraiser should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework  Interviews with stakeholders	DNV has confirmed that JR East will disclose the allocation status of proceeds and the progress of projects on its website on an annual basis until the proceeds of sustainability finance, etc. are fully allocated. The disclosure includes the amount of proceeds allocated based on a project, the allocated amount of proceeds and the amount allocated to refinancing.



### (4) Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4a	Periodical reporting	In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, fundraisers should provide at least annually a list of projects to which Sustainability Finance proceeds have been allocated including:  - confidentiality and/or competitive considerations, where possible;  -a brief description of the projects and the amounts disbursed, as well as the expected environmental and social sustainable impact	Confirmed documents: - East Japan Railway Company Sustainability Finance Framework  Interviews with stakeholders	DNV has confirmed that JR East will provide annual reporting on specific items required by sustainability finance etc. (e.g., allocation status of proceeds, effectiveness of project improvements, environmental benefits, indicators that may contribute to improving social issues) until the proceeds are fully allocated. The reporting plans to disclose the following information as far as practicable per eligible project category or per eligible project. <green projects="">  Record of introducing trains, trains powered by electric battery or hybrid train cars  Energy-saving by using VVVF inverter, etc. (designed value)  Energy-saving by using LED lighting (vs. conventional fluorescent lighting)  Details of R&amp;D investment (train cars)  Details of maintenance, renovation and renewal of equipment essential for railway operations, and disaster countermeasures (railway facilities)  Overview of renewable energy project (name of the project, location, output capacity in kW, etc)  Power generation (kWh)  Overview of green eligible building  Type and rank of environmental certifications obtained  Primary energy consumption, CO<sub>2</sub> emissions  Project overview, waste volume (ton), recycling results (various recycling rates etc.)  Project overview, tree planting results (number of trees, area, etc.)</green>



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				Other <social projects="">  Record of introducing train cars  Number of train cars with wheelchair spaces and barrier-free spaces  Number of stations with platform doors, barrier-free bathroom and elevators  Overview of pedestrian network facilities  Number of locations, utilization record  Number of patients, number of ambulances accepted, introduced equipment, number of online medical centers Other</social>