



ANNEX - SECOND PARTY OPINION

EAST JAPAN RAILWAY COMPANY GREEN BOND (ISSUED IN SEPTEMBER 2024) PRE-ISSUANCE ASSESSMENT

Prepared by: DNV Business Assurance Japan K.K.

Location: Kobe, Japan

Date: 28 August 2024

Ref. Nr.: PRJN-802670-2024-ANX-JPN-01

This ANNEX is prepared based on the East Japan Railway Company Sustainability Finance Framework Second Party Opinion (hereinafter, "Master SPO") (Ref. Nr.: PRJN-461128-2022-AST-JPN-01 *5 December 2022), which was assessed against the East Japan Railway Company Sustainability Finance Framework (hereinafter, the "Framework").

*For more information on the ANNEX - Second Party Opinion, please see following DNV website.

<https://www.dnv.jp/news/page-227965> Release of a new evaluation service (Master SPO + ANNEX)

Executive Summary

DNV Business Assurance Japan K.K. (hereinafter, "DNV") has confirmed that the East Japan Railway Company Green Bond (issued in September 2024) (hereinafter, the "BOND") to be executed by East Japan Railway Company (hereinafter, "JR East"), based on the Framework^{*1} which has already been assessed its eligibility^{*2} and that it is planned to be executed and managed through appropriate internal processes.

*1: East Japan Railway Company Sustainability Finance Framework

*2: East Japan Railway Company Sustainability Finance Framework Second Party Opinion

Table-1 provides an overview of the BOND and ANNEX - Second Party Opinion. The additional criteria to be assessed in the ANNEX - Second Party Opinion are Element-1 (Use of Proceeds) and Element-4 (Reporting) which are under the bonds with specific use of proceeds (response to the four elements). In addition, this report includes opinion against to EU Taxonomy criteria related to "Manufacturing," "Transport," and "Energy."

The conformance against the criteria for the other elements has already been assessed for eligibility in accordance with the Framework.

Table-1 JR East Green Bond (issued in September 2024) ANNEX - Second Party Opinion

Target finance	JR East Green Bond (issued in September 2024)	
Target organization	East Japan Railway Company	
Target framework	East Japan Railway Company Sustainability Finance Framework	
Target external review	East Japan Railway Company Sustainability Finance Framework Second Party Opinion Ref. Nr.: PRJN-461128-2022-AST-JPN-01 Issued on 5 December 2022	
Target criteria	Criteria for the use of proceeds bond <ul style="list-style-type: none"> - Green Bond Principles (ICMA, 2021) - Green Bond Guidelines (MoE, 2022) - EU Taxonomy "Manufacturing" "Transport" "Energy" (European Commission) 	
Bonds with specific use of proceeds (response to the four elements)	Element-1 (Use of Proceeds)	<ul style="list-style-type: none"> - Confirmed reliance on the Framework. Additional assessment was implemented as follows: <ul style="list-style-type: none"> • Train cars: Investments in relation to manufacturing or renovation of train cars powered by electricity • Railway infrastructure 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 infrastructure facilities for railway operations • Solar power: Expenditure related to the construction, installation, operation, or maintenance of, or the financial investment in solar power generation equipment • Wind power: Expenditure related to the construction, installation, operation, or maintenance of, or the financial investment in wind power generation equipment

	Element-2 (Process for Project Evaluation and Selection)	- Confirmed reliance on the Framework
	Element-3 (Management of Proceeds)	- Confirmed reliance on the Framework
	Element-4 (Reporting)	<ul style="list-style-type: none"> - Confirmed reliance on the Framework. Additional assessment was implemented as follows: <ul style="list-style-type: none"> • Allocation of proceeds: Items and categories • Environment benefits: <ul style="list-style-type: none"> - Train cars: CO₂ emissions stemming from railway operations (g-CO₂/person-km), record of introducing train cars - Railway infrastructure facilities: The result of rail replacements, the result of electricity cable repairs - Solar power: Annual electricity generated by solar power (kWh/year), the amount of CO₂ emissions reduction (t-CO₂/year) created by solar power - Wind power: Annual electricity generated by wind power (kWh/year), the amount of CO₂ emissions reduction (t-CO₂/year) created by wind power ➔ Details are described in “V. Findings and DNV’s Opinion.”

DNV, as an external reviewer, provided an additional eligibility assessment on the use of proceeds and reporting of the BOND, based on an assessment of the Framework, additional criteria (EU Taxonomy “Manufacturing,” “Transport,” and “Energy”) and other relevant documents and information provided by JR East. DNV also confirmed that there were no changes to the other items (in accordance with the Framework).

Table of Contents

Executive Summary	2
I. Scope and Objectives	5
II. Responsibilities of JR East and DNV	6
III. Basis of DNV’s Opinion	6
IV. Work Undertaken	8
V. Findings and DNV’s Opinion	9
VI. Assessment Conclusion	18
Schedule-1 Green Bond Nominated Projects	19

Revision History

Date of Issue	Remarks
15 February 2023	Initial version, East Japan Railway Company Green Bond ANNEX - Second Party Opinion
25 August 2023	Initial version, East Japan Railway Company Green Bond (issued in September 2023) ANNEX - Second Party Opinion
28 August 2024	Initial version, East Japan Railway Company Green Bond (issued in September 2024) ANNEX - Second Party Opinion

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.

¹ DNV Code of Conduct is available from DNV website (www.dnv.com)

I. Scope and Objectives

DNV has been commissioned by JR East to provide a pre-issuance assessment on the East Japan Railway Company Green Bond. Our objective has been to implement an assessment to confirm that JR East meets the criteria established on GBP/GBGL and related EU Taxonomy criteria, which are the criteria for bonds with specific use of proceeds, to provide ANNEX - Second Party Opinion regarding the eligibility of the BOND.

DNV, as an independent external reviewer, has identified no real or perceived conflict of interest associated with the delivery of this ANNEX - Second Party Opinion for JR East.

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

(1) Scope of review*

As per the review, DNV assessed the following elements and confirmed their alignment with the GBP:

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

* DNV has already reviewed "Process for Project Evaluation and Selection" and "Management of Proceeds" and has issued Master SPO as below¹⁾. DNV has also confirmed through our assessment on JR East that there were no changes in these elements for the BOND to be issued this time or no additional assessments are required for them.

1) East Japan Railway Company Sustainability Finance Framework Second Party Opinion

Ref. Nr.: PRJN-461128-2022-AST-JPN-01 Issued on 5 December 2022

(2) Role(s) of review provider

- | | |
|-----------------------------------------------------------|----------------------------------------|
| <input checked="" type="checkbox"/> Second Party Opinion | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Ratings |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

(3) Standards/guidelines to be applied

No.	Standards/guidelines	Scheme owner
1.	Green Bond Principles (GBP)	International Capital Market Association (ICMA), 2021
2.	Green Bond Guidelines (GBGL)	Ministry of the Environment, 2022
3.	EU Taxonomy (Manufacturing) (Transport) (Energy) ^{*1}	European Commission

*1 This report additionally provides opinion on the alignment with EU Taxonomy criteria "Manufacturing" (Activity number 3.19 "Manufacture of rail rolling stock constituents"), "Transport" (Activity number 6.1 "Passenger interurban rail transport" and 6.14 "Infrastructure for rail transport"), and "Energy" (Activity number 4.1 "Electricity generation using solar photovoltaic technology" and 4.3 "Electricity generation from wind power").



II. Responsibilities of JR East and DNV

JR East has provided the information and data used by DNV during the delivery of this review. DNV's ANNEX - 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 projects and 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 management and used as a basis for this assessment were not correct or complete.

III. Basis of DNV's Opinion

To provide a more flexible ANNEX - Second Party Opinion for the issuer, JR East, DNV identified the key assessment targets and carried out assessments in accordance with its protocol.

DNV, as an independent external reviewer, provides ANNEX - Second Party Opinion according 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 green bond as the basis for the opinion is as follows:

"enable capital-raising and investment for new and existing projects with environmental benefits"



As per our protocol, the criteria against which the BOND has been grouped into common elements below.

The additional assessment for this ANNEX - Second Party Opinion covers Element-1 and Element-4 out of the four common elements of GBP/GBGL and EU Taxonomy criteria "Manufacturing," "Transport," and "Energy".

Part of four elements of the BOND and their alignment with GBP/GBGL have already been assessed for eligibility. Detailed results of the eligibility assessment for such parts can be found in the "East Japan Railway Company Sustainability Finance Framework Second Party Opinion" (Ref. Nr.: PRJN-461128-2022-AST-JPN-01 Issued on 5 December 2022).

(1) Four elements of GBP/GBGL

Principle One: Use of Proceeds

**Subject to additional assessment of ANNEX - Second Party Opinion*

The Use of Proceeds criteria are guided by the requirement that an issuer of a green bond must use the funds raised to bond eligible activities. The eligible activities should produce clear environmental 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 green bond should outline the process it follows when determining eligibility of an investment using the proceeds from green bond, 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 green bond should be tracked within the issuing 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

**Subject to additional assessment of ANNEX - Second Party Opinion*

The Reporting criteria are guided by the recommendation that at least Sustainability Reporting to the bond investors should be made of the use of bond proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.



IV. 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 issuer 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-funding assessment (ANNEX - Second Party Opinion)

- Assessment of additional documentary evidence provided by JR East on the BOND and supplemented assessment by a comprehensive desktop research. These checks refer to current assessment best practice and standards methodologies;
- Discussions with JR East, and review of relevant documentation;
- Documentation of findings against each element of the criteria to be additionally assessed.

ii. Post-funding assessment (periodic review) (not included in this report*)**

- Interviews with the issuer's managers and review of relevant documentation;
- Site surveys and inspections (if required);
- Documentation of post-issuance assessment results.



V. Findings and DNV's Opinion

DNV's findings and opinion are as described below.

Please see Schedule-1 for details.

GBP/GBGL-1. Use of Proceeds

JR East has defined the eligibility criteria for the use of proceeds as green projects, which are categorized in GBP/GBGL and EU Taxonomy.

The proceeds of the BOND will be used for the nominated five projects. Please see Schedule-1 and following assessment results for details.

The amount of proceeds of the BOND will be disclosed in future documents relating to the BOND issuance. DNV confirmed at the time of this assessment that the proceeds will be allocated mainly to new investments and partly for refinancing. The actual allocation results will be reported on an annual basis in accordance with GBP/GBGL-4.Reporting.

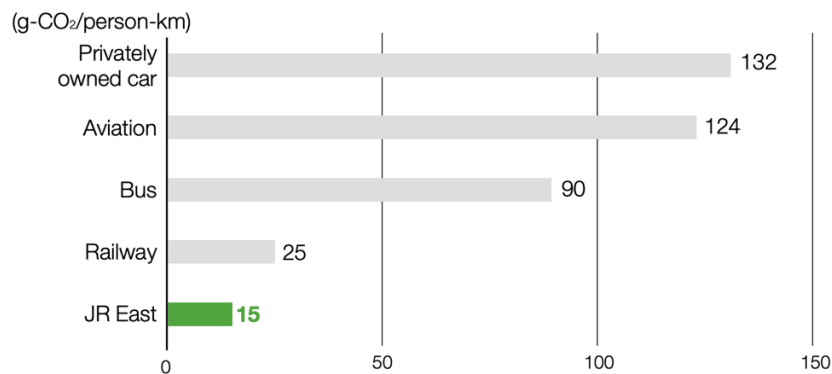
Project-01 : Train cars (Shinkansen Series E8)

- Train cars (Shinkansen Series E8) is a project categorized as “Clean transportation” in GBP 2021 and “Passenger interurban rail transport” in EU Taxonomy Activity number 6.1.
- Specifically, DNV confirmed that the nominated project is direct zero emission trains, which meets the climate change mitigation criteria of EU Taxonomy described above. It has been widely recognized and demonstrated by JR East that zero-emission trains realize substantial contribution of CO₂ emission reduction compared to competitive transportation media such as Privately owned car, Aviation, Bus, etc.^{Ref.)}
- The proceeds from the BOND will be allocated to manufacturing of train cars and purchasing of equipment for Shinkansen Series E8 train cars, which will be operated at Yamagata Shinkansen line (from Tokyo to Shinjo (Yamagata)) (the newest series with improved safety and comfortability).
- Environmental benefits from the Project-01 are CO₂ emissions (estimation) stemming from operation of E8 train cars and record (actual) of introducing E8 train cars per annum.



Project-01 Train cars (Shinkansen Series E8)

Ref. JR East website



Source: Adapted from the website of the Ministry of Land, Infrastructure, Transport and Tourism
 Ref.) CO₂ Emissions per Transport Volume (Passenger Transportation) (Fiscal 2022)

Project-02 : Train cars (Conventional railcars Series E235, E233)

- Train cars (Conventional railcars Series E235, E233) is a project categorized as “Clean transportation” in GBP 2021 and “Passenger interurban rail transport” in EU Taxonomy Activity number 6.1.
- Specifically, DNV confirmed that the nominated project is direct zero emission trains, which meets the climate change mitigation criteria of EU Taxonomy described above. It has been widely recognized and demonstrated by JR East that zero-emission trains realize substantial contribution of CO₂ emission reduction compared to competitive transportation media such as Privately owned car, Aviation, Bus, etc.)
- The proceeds from the BOND will be allocated to manufacturing of train cars and purchasing of equipment for the conventional railcars Series E235 train cars, which will be operated in the Tokyo metropolitan area, and conventional railcars Series E233 train cars, which will be operated in the Tokyo metropolitan area and its suburbs.
- In addition to being classified as "Clean Transportation" under GBP 2021 and EU Taxonomy Activity No. 6.1 "Passenger interurban rail transport," all of these train cars are equipped with the latest energy-saving technologies to improve environmental friendliness (e.g., use of SiC (silicon carbide) semiconductors), dual systems for main equipment and the latest condition monitoring functions to improve stable operation, and increased comfortability with wider seats.
- Environmental benefits from the Project-02 are CO₂ emissions (estimation) stemming from operation of E235 and E233 train cars and record (actual) of introducing E235 and E233 trains cars per annum.

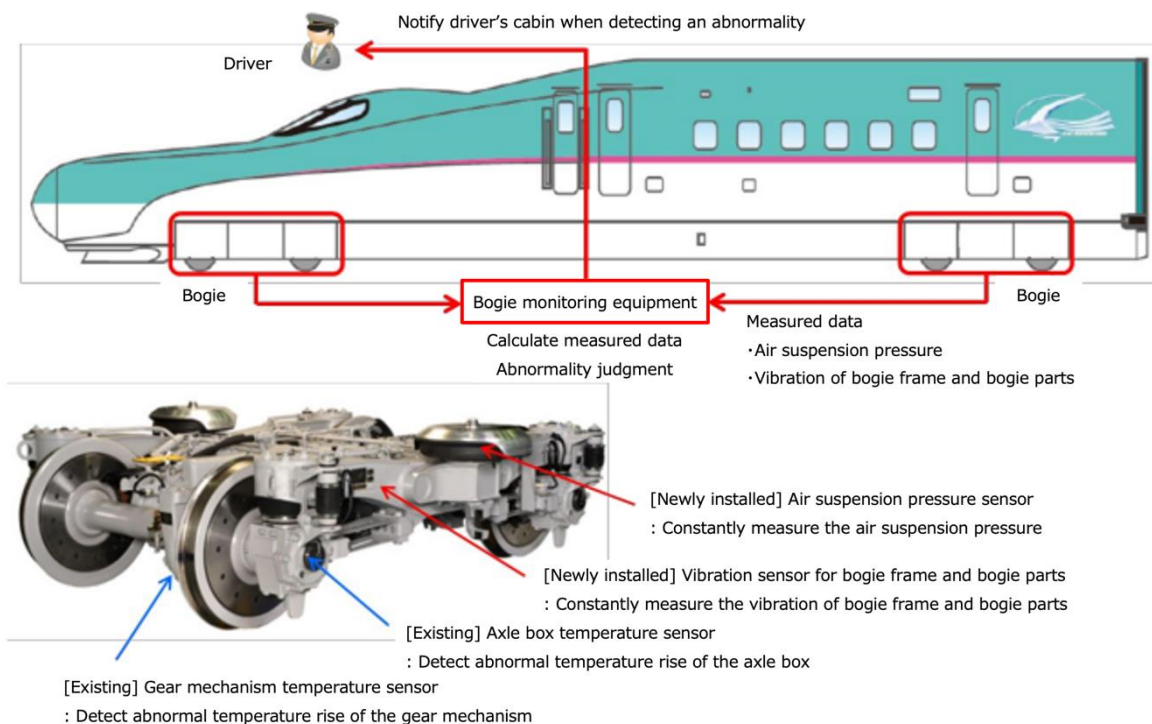


Project-02 Train cars(left: E235; center: E233; right: E233 green (first class) car)

Ref. JR East website

Project-03: Train cars (Shinkansen modification (installation of bogie monitoring equipment))

- Train cars (Shinkansen modification (installation of bogie monitoring equipment)) is a project categorized as “Clean transportation” in GBP 2021 and “Manufacture of rail rolling stock constituents” in EU Taxonomy Activity number 3.19.
- Specifically, DNV confirmed that the nominated project is installation of equipment, which is essential for safe and stable transportation of train cars with zero direct CO₂ emissions, which meets the climate change mitigation criteria of EU Taxonomy described above.
- The proceeds from the BOND will be allocated to Shinkansen modification (installation of bogie monitoring equipment).
- Environmental benefits from the Project-03 are the introduction result of modified Shinkansen railcars.



Project-03 Train cars (Shinkansen modification (installation of bogie monitoring equipment))

Ref. JR East website

Project-04: Railway infrastructure facilities (investments and expenses for maintenance, renovation, and renewal)

- Railway infrastructure facilities (investments and expenses for maintenance, renovation, and renewal) is a project categorized as “Clean transportation” and part of “Climate change adaptation” in GBP 2021 and “Infrastructure for rail transport” in EU Taxonomy Activity number 6.14.
- Specifically, DNV confirmed that the maintenance and management of railway facilities are essential, in normal times and in times of natural disasters (e.g., typhoons), for securing safe and stable transportation within direct zero emission trains operation area* covered by JR East, which meets the climate change mitigation and adaptation criteria of EU Taxonomy described above.
- The proceeds from the BOND will be allocated to investments (CapEx) and expenses (OpEx) for maintenance, renovation, and renewal of Shinkansen and conventional railway equipment, such as aging replacements and repairs (e.g., rail replacements, electricity cable repairs).
- Environmental benefits from the Project-04 are its contribution to enhance clean transportation operation opportunities (green economic activities). Therefore, the results of rail replacements and electricity cable repairs will be reported as project progress in the annual reporting.

* Train cars owned by JR East includes some diesel trains as well as zero direct CO₂ emission trains, however, it only accounts for a small percentage and DNV confirmed that the amount allocated to this project is less than the total project amount, prorated by the proportion of trains in the total train cars.



Project-04 Railway infrastructure facilities (investments and expenses for maintenance, renovation, and renewal) (left image: rail replacement; right image: electricity cable repair)

Ref. JR East website

Project-05: Solar power

- Solar power is a project categorized as “Renewable energy” in GBP 2021 and “Electricity generation using solar photovoltaic technology” in EU Taxonomy Activity number 4.1.
- Specifically, DNV confirmed that the nominated project is the activity generates electricity using solar PV technology, which meets the climate change mitigation criteria of EU Taxonomy described above.
- The proceeds from the BOND will be allocated and managed by adopting a portfolio management approach. Specifically, the proceeds will be allocated and managed as part of the investment in several solar power plants, including those already in operation and under construction, invested by JR-EAST Energy Development Co., Ltd., a consolidated subsidiary to which JR East provides loans through its cash management system.
- DNV confirmed that the allocation and management method is a reasonable control because direct tracking by JR East of the allocation and management of proceeds for this project is complex and has wide range of details, and because it is possible to track and confirm the allocation and management status in the event that any doubt should arise.
- Environmental benefits from the Project-05 are calculated and reported as power generation amount (kWh) of power plants already in operation and impact of CO₂ emissions reduction (t-CO₂/year).



Project-05 Solar power
(e.g., Fukushima Prefecture Tomioka Revitalization Mega Solar Power Plant)

Ref. JR-EAST Energy Development website

Project-06: Wind power

- Wind power is a project categorized as “Renewable energy” in GBP 2021 and “Electricity generation from wind power” in EU Taxonomy Activity number 4.3.
- Specifically, DNV confirmed that the nominated project is the activity generates electricity using wind power technology, which meets the climate change mitigation criteria of EU Taxonomy described above.
- The proceeds from the BOND will be allocated and managed by adopting a portfolio management approach. Specifically, the proceeds will be allocated and managed as part of the investment in several wind power plants, including those already in operation and under construction, invested by JR-EAST Energy Development Co., Ltd., a consolidated subsidiary to which JR East provides loans through its cash management system.
- DNV confirmed that the allocation and management method is a reasonable control because direct tracking by JR East of the allocation and management of proceeds for this project is complex and has wide range of details, and because it is possible to track and confirm the allocation and management status in the event that any doubt should arise.
- Environmental benefits from the Project-06 are calculated and reported as power generation amount (kWh) of power plants already in operation and impact of CO₂ emissions reduction (t-CO₂/year).



Project-06 Wind power
(e.g., Akita Prefecture Mitane Wind Farm)

Ref. JR-EAST Energy Development website



Common (From Project-01 to Project-06): DNSH (Do No Significant Harm) criteria

JR East demonstrated that negative impacts due to the projects and related activities are identified and measures are taken.

Specifically, DNSH criteria (Climate adaptation, Water, Circular economy, Pollution prevention and Biodiversity) and Minimum safeguards are considered based on the principle of EU Taxonomy 2.1.6, which describes that:

“locally relevant standards may reasonably be applied in countries outside the EU”

According to EU Taxonomy principle, DNV confirmed that JR East properly complies with most of the Japanese laws and regulations related to DNSH criteria, and that it voluntarily manages those without legal standards.

DNV also confirmed that JR East has been taking measures to improve and respond to Japanese laws and regulations as per instruction from related ministries and local municipality in a timely manner.

GBP/GBGL-4.Reporting

DNV has confirmed that JR East will report specific information related to sustainability finance required by the GBP, GBGL, etc. in its Integrated Report or on the 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 or portfolio basis, within the limits of confidentiality as far as reasonably practicable. Where feasible, estimated indicator values of appropriate environmental benefits 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 period in a timely manner. The major reporting items are the following:

<Allocation Status>

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

* Project-04: Railway infrastructure facilities (investments and expenses for maintenance, renovation, and renewal) will be disclosed for the amount allocated to CapEx and OpEx respectively.

<Environmental Benefits>

- **Green Category:** Clean transportation (EU Taxonomy 3 Manufacturing and 6 Transport) and Renewable Energy (EU Taxonomy 4 Energy)
- **Eligible Projects:** Overall rail transportation, solar power, and wind power

#	Reporting content on environmental benefits
1	<Train cars> <ul style="list-style-type: none"> • CO₂ emissions stemming from railway operations (g-CO₂/person-km) • Record of introducing train cars
2	<Railway infrastructure facilities> <ul style="list-style-type: none"> • The result of rail replacements • The result of electricity cable repairs
3	<Solar power> ^{*1} <ul style="list-style-type: none"> • Annual electricity generated by solar power plants already in operation (kWh/year) • The amount of CO₂ emissions reduction (t-CO₂/year) created by solar power
4	<Wind power> ^{*1} <ul style="list-style-type: none"> • Annual electricity generated by wind power plants already in operation (kWh/year) • The amount of CO₂ emissions reduction (t-CO₂/year) created by wind power

*1 Environmental benefits will be calculated in proportion to the Issuer's interest in the relevant project.



VI. Assessment Conclusion

On the basis of the information provided by JR East and the work undertaken, it is DNV's opinion that the BOND mostly meets the criteria established in the eligibility assessment protocol, and that it is aligned with the following stated definition or purpose of the bonds with specific use of proceeds within the GBP/GBGL:

"enable capital-raising and investment for new and existing projects with environmental Benefits"

DNV Business Assurance Japan K.K.

28 August 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 Green Bond Nominated Projects

No.	Green Eligible Project		Project Overview	
	Category	Sub Category		
1	Clean transportation	Overall rail transportation	Project-01, 02: Train cars	
			EU Taxonomy (Sector 6, Transport) 6.1 "Passenger interurban rail transport"	<ul style="list-style-type: none"> • Train cars (Shinkansen Series E8 and Conventional railcars Series E235, E233) are direct zero emission train cars, which meets the climate change mitigation criteria of "Passenger interurban rail transport" in EU Taxonomy 6.1. • The proceeds will be allocated to manufacturing of and purchasing of equipment for the following train cars: <ul style="list-style-type: none"> - Shinkansen Series E8 train cars, which will be operated at Yamagata Shinkansen line (from Tokyo to Shinjo (Yamagata)) (the newest series with improved safety and comfortability) - Conventional railcars Series E235 train cars, which will be operated in the Tokyo metropolitan area, and conventional railcars Series E233 train cars, which will be operated in the Tokyo metropolitan area and its suburbs

No.	Green Eligible Project		Project Overview	
	Category	Sub Category		
2	Clean transportation	Overall rail transportation	Project-03: Train cars (Shinkansen modification (installation of bogie monitoring equipment))	
			EU Taxonomy (Sector 3, Manufacturing) 3.19 "Manufacture of rail rolling stock constituents"	<ul style="list-style-type: none"> Train cars (Shinkansen modification (installation of bogie monitoring equipment)) is installation of equipment, which is essential for safe and stable transportation of train cars with zero direct CO₂ emissions, which meets the climate change mitigation criteria of EU Taxonomy Activity number 3.19 "Manufacture of rail rolling stock constituents." The proceeds from the BOND will be allocated to Shinkansen modification (installation of bogie monitoring equipment).
3	Clean transportation Climate change response	Overall rail transportation	Project-04: Railway infrastructure facilities	
			EU Taxonomy (Sector 6, Transport) 6.14 "Infrastructure for rail transport"	<ul style="list-style-type: none"> Railway infrastructure facilities is a project, in which the maintenance and management of railway facilities are essential, in normal times and in times of natural disasters (e.g., typhoons), for securing safe and stable transportation within direct zero emission trains operation area covered by JR East, which meets the climate change mitigation and adaptation criteria of EU Taxonomy Activity number 6.14 "Infrastructure for rail transport." The proceeds from the BOND will be allocated to investments (CapEx) and expenses (OpEx) for maintenance, renovation, and renewal of Shinkansen and conventional railway equipment, such as aging replacements and repairs (e.g., rail replacements, electricity cable repairs).

No.	Green Eligible Project		Project Overview	
	Category	Sub Category		
4	Renewable energy	Solar power	Project-05: Solar power	
		Wind power	EU Taxonomy (Sector 4, Energy) 4.1 "Electricity generation using solar photovoltaic technology"	<ul style="list-style-type: none"> • Solar power is an activity generates electricity using solar PV technology, which meets the climate change mitigation criteria of EU Taxonomy Activity number 4.1 "Electricity generation using solar photovoltaic technology." • The proceeds from the BOND will be allocated and managed by adopting a portfolio management approach. Specifically, the proceeds will be allocated and managed as part of the investment in several solar power plants, including those already in operation and under construction, invested by JR-EAST Energy Development Co., Ltd., a consolidated subsidiary to which JR East provides loans through its cash management system.
5	Renewable energy	Solar power	Project-06: Wind power	
		Wind power	EU Taxonomy (Sector 4, Energy) 4.3 "Electricity generation from wind power"	<ul style="list-style-type: none"> • Wind power is an activity generates electricity using wind power technology, which meets the climate change mitigation criteria of EU Taxonomy Activity number 4.3 "Electricity generation from wind power." • The proceeds from the BOND will be allocated and managed by adopting a portfolio management approach. Specifically, the proceeds will be allocated and managed as part of the investment in several wind power plants, including those already in operation and under construction, invested by JR-EAST Energy Development Co., Ltd., a consolidated subsidiary to which JR East provides loans through its cash management system.