



VERIFICATION REPORT

Japan Railway Construction, Transport and Technology Agency

JRTT Sustainability Finance

DNV Post-Issuance Verification and Periodical Review (5th)

Prepared by: DNV Business Assurance Japan K.K.

Location: Kobe, Japan

Date: 16th November 2023

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Revision History

Issue Date	Remarks
January 2019	JRTT Sustainability Finance Eligibility
January 2019	DNV GL Pre Issuance Verification Report
October 2019	JRTT Sustainability Finance
October 2019	DNV GL Post Issuance Verification and Periodical Review (1st)
November 2020	JRTT Sustainability Finance
November 2020	DNV GL Post Issuance Verification and Periodical Review (2nd)
June 2021	JRTT Sustainability Finance Eligibility
June 2021	DNV Pre Issuance Verification Report_r1
November 2021	JRTT Sustainability Finance
November 2021	DNV Post Issuance Verification and Periodical Review (3rd)
October 2022	JRTT Sustainability Finance
(This report)	DNV Post Issuance Verification and Periodical Review (4th)
(This report)	-
	JRTT Sustainability Finance
	DNV Post Issuance Verification and Periodical Review (5th)
	- Allocation Status
	Of the funds raised in FY2021, 55.05 billion yen was unallocated, and 10.55 billion yen
FY2023	is to be newly allocated in FY2022, reducing the unallocated amount to 15.79 billion
(This Report)	yen as of the end of FY2022.
	Allocate funds raised in FY2022 (80 billion yen in sustainability bonds, 21.48 billion yen
	in sustainability loans) as planned
	- Environmental improvement effect: Confirmation of CO ₂ emissions per volume of transport
	through low-carbon transport

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)



Scope and Objectives:

Japan Railway Construction, Transport and Technology Agency (hereinafter, "JRTT") is an incorporated administrative agency and fully invested by government. JRTT is only one incorporated administrative agency who develops and supports transportation networks through railway and ship assets. Its organization is divided into the following five accounts: Construction Account, Maritime Account, Local public transportation Account, Subsidy Account, and Special Operation Account; moreover, this organization has the following five businesses units: Railway construction, Joint Ownership Coastal Shipbuilding, Local Public Transportation Investment etc., Railway Development Subsidy, and Japanese National Railways Settlement Administration,.

JRTT determined the basic philosophy indicated below to achieve the goals prescribed in Japan Railway Construction, Transport and Technology Agency Act. Furthermore, JRTT has formulated the environmental consideration policy as "Basic Environmental Policy" (determined on 27 Aug. 2013) and "Environmental Action Plan" (formulated on 1 Apr. 2018), and executed the specific commitment to reduce the environmental load for its business activities.

【JRTT's Basic Philosophy】

Contribute to Build Tomorrow's Transportation Networks.

- We contribute to building safe, secure, eco-friendly transportation networks.
- Our transportation network building helps improve people's lives and further develop economies and societies.
- In the course of building transportation networks, we use our reliable technical capacity, abundant experience, and advanced expertise to the fullest.

The Promotion for the business of Railway Construction and Joint Ownership Shipbuilding through this Sustainability Finance issuance contributes the solution for environmental issues and the social benefits. These activities also contribute the SDGs goals set by the United Nations. Moreover, DNV has confirmed that JRTT captured and linked the relationship widely between SDGs goals and each business of overall organization. The outline of Green (Environmental) / Social Benefit and Contribution to SDGs is described in the following table.



Table-1 JRTT Sustainability Finance for Environmental/Social Benefits and Contribution to SDGs*

Project portfolio	Green (Environmental) Benefit	Social Benefit	Linkage/Contribution to SDGs
No.01 Railway Construction	Eligible Category: Clean Transportation - Mitigation of environmental load (Greenhouse gas emission reduction etc.)	Eligible Category: - Essential and imperative transportation infrastructure Maintenance - Low cost and easy access for various customers	Goal 3: Good Health and Well-being Goal 7: Affordable and Clean Energy Goal 8: Decent Work and Economic Growth Goal 9: Industry, Innovation and Infrastructure Goal 11: Sustainable Cities and Communities Goal 12: Responsible Consumption and Production Goal 13: Climate Action Goal 15: Life on Land 3 MONTHERM 7 AFFRANCE OF THE PROTECTION OF THE PROTECTIO
No.02 Joint Ownership Shipbuilding	Eligible Category: Clean Transportation, Pollution Prevention and Control - Mitigation of environmental load (Greenhouse gas emission reduction etc.) - Marine environment conservation	Eligible Category: - Essential and imperative transportation infrastructure Maintenance and various user convenience - Efficient distribution - Operation of routes to remote island	Goal 8: Decent Work and Economic Growth Goal 9: Industry, Innovation and Infrastructure Goal 11: Sustainable Cities and Communities Goal 13: Climate Action Goal 14: Life Below Water 8 BECHT MORY AND RESERVE MORY AND PRESERVE AND AND PRESERVE AND AND PRESERVE AND

^{*} In addition to the JRTT and Sustainability Finance Project Portfolio contributions to the SDGs goals shown in Table-1, DNV has confirmed that JRTT has organized contribution to SDGs from the perspective of environmental and social benefits based on its governance structure and business content.



Table-2 Relationship between JRTT business content and SDGs

JRTT Governance System/Business Content	Linkage/Contribution to SDGs				
Governance system sustaining the business activities	•Goal 8: Decent Work and Economic Growth •Goal 16: Peace and Justice Strong Institutions 8 BERN MORKAD 16 AND LIBRAT 17 AND LIBRAT 18 AND				
Securing/Cultivating human resources Appropriate staff assignment	•Goal 5: Gender Equality •Goal 8: Decent Work and Economic Growth 5 **BURET** **BURET*				
Activating communities	•Goal 9: Industry, Innovation and Infrastructure •Goal 11: Sustainable Cities and Communities 9 NUSTRY NORTH 11 SUSTAINABLE CITES 11				
International cooperation	•Goal 3: Good Health and Well-being •Goal 7: Affordable and Clean Energy •Goal 9: Industry, Innovation and Infrastructure •Goal 11: Sustainable Cities and Communities •Goal 13: Climate Action •Goal 17: Partnerships to achieve the Goal 3 GOOD HALTE 3 GOOD HALTE 3 GOOD HALTE 4 FROM HEADON 11 ASSIGNMENT STORM 13 GOOD HALTE 4 FROM HEADON 17 FROM HEADON 18 GOOD HALTE 18 GOOD HALTE 19 FROM HEADON 19 FROM HEADON 10 FROM HEADON 10 FROM HEADON 11 ASSIGNMENT STORM 12 FROM HEADON 13 GOOD HALTE 14 FROM HEADON 15 FROM HEADON 16 FROM HEADON 17 FROM HEADON 18 GOOD HALTE 18 GOOD HALTE 18 GOOD HALTE 19 FROM HEADON 19 FROM HEADON 10 FROM HEADON 11 ASSIGNMENT STORM 12 FROM HEADON 13 GOOD HALTE 14 FROM HEADON 15 FROM HEADON 16 FROM HEADON 17 FROM HEADON 18 FROM HEADON 18 FROM HEADON 18 FROM HEADON 19 FROM HEADON 19 FROM HEADON 10 FROM HEADON 11 ASSIGNMENT STORM 12 FROM HEADON 13 GOOD HALTE 16 FROM HEADON 17 FROM HEADON 18 FROM HEADON 19 FROM HEADON 19 FROM HEADON 10 FROM HEADON 17 FROM HEADON 18 FROM HEADON				



This report covers post-issuance verification and periodical review based on CBI Program Certification of JRTT Sustainability Finance^{*1} as Climate Finance (bonds and loans) carried out in FY 2021 and FY 2022.

In FY 2021, JRTT will procure bonds through JRTT Sustainability Finance on 28th May, 30th August, 29th November in Year 2021, and 25th February 2022. The procurement will be through a loan executed on 30th November 2021 and 29th March 2022, and they plan to allocate only a portion of the Sustainability Loan (executed on November 30, 2021) over multiple years. Also in FY 2022, JRTT issued Sustainability Finance on 30th May, 30th August, 29th November in Year 2021 and 27th February 2022 in total of 80 billion yen equivalent Bond as well as 21.48 billion yen equivalent Loan raised on 29th March 2023. JRTT has secured program certification from the Climate Bonds Initiative against the Climate Bonds Standard. DNV Business Assurance Japan K.K. (hereinafter, "DNV") conducted post issuance verification against Climate Bond Standards version3.0 (hereinafter, "CBS v3.0") and periodical review of the Finance Eligibility Assessment by using the Sustainability Bond Guidelines * 2 (ICMA; hereinafter, "SBG") and the Green Bond Guidelines * 3 (the Ministry of the Environment, Japan; hereinafter, "GBGLs").

Regarding fund raised in FY 2021, we are conducting a conformity assessment focusing on the allocation status of unallocated proceeds as of the end of FY 2021.

- * 1: financing method that includes contribution to both environmental (green) and social (social) nature, and bond issuance (bond) and market borrowing (loan)
- *2: Due to revisions to the guidelines and framework, the 2022 version will be applied after December 2022, and the 2018 version will be applied before then.
- *3: Due to revisions to the guidelines and framework, the 2022 version will be applied after December 2022, and the 2017 version will be applied before then.

JRTT determined Basic Environmental Policy and Environmental Action Plan based on its Basic Philosophy; "We contribute to build safe, secure, eco-friendly transportation networks." Under this commitment, JRTT executes various business includes sustainability eligible project portfolio "Railway Construction" and "Joint Ownership Shipbuilding." JRTT defines its sustainable social contribution through its business associating its Finance Eligible Project Portfolios with SDGs.

JRTT has allocated a portion of the unallocated proceeds (loans) raised through JRTT Sustainability Finance in FY2021 to the following projects and assets as planned during FY2022.

"Project 01, Railway Construction"

R-5 Shinkansen Lines *new allocation



JRTT allocated the funds (bonds and loans) raised through JRTT Sustainability Finance in FY2022 to the following projects and assets as refinance as planned during FY2022.

"Project 01, Railway Construction"

- R-2 Main Line and Interurban Lines in Big Cities *refinance
- R-3 Private Sector Railway*refinance
- R-4 Urban Railway *refinance*Refer to Schedule-1 for the detail of proceeds allocation and projects.

JRTT has commissioned DNV to provide the pre-issuance verification, post-issuance verification, and periodical review of the JRTT's eligibility of the Finance against the CBS v3.0 determined by CBI which is acknowledged as an international Climate Bod Certification Agent. At the same time, they have commissioned DNV to follow criteria of SBG and GBGLs. Pre-issuance verification which was conducted in January 2019 and additional verification (revised verification report) was conducted in June 2021 and December 2022 concluded the eligibility of railway construction against CBS v3.0 and related technical sector criteria. Moreover, based on the verification results, JRTT has obtained program certification intended to raise funds that contribute to the environment through continuous Sustainability Finance. DNV will not provide independent assurance or other audit activities.

Our standards and information for achieving the request from JRTT are listed in the "Work Undertaken" below. The post-financing verification and periodic review to be conducted this time will be conducted based on the information provided to DNV by JRTT (explanations and documents from JRTT stakeholders) in an interview with JRTT conducted on 6th September 2023.

This report provides no guarantees regarding the financial performance of sustainability finance, the value of any finance investments, or the long-term environmental benefits of selected projects. DNV's purpose is to provide an evaluation based on the criteria set out below as to whether the use of proceeds is consistent with the criteria set out below.

Low Carbon Land Transport and the Climate Bonds Standard (Version 1.0)

Land Transport Criteria (Version 2) Oct. 2020



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As the Framework and Verification Report were revised in June 2021, the Land Transport

Criteria (Version 2) is used as the basis for evaluation of funding after that date.

Also, DNV includes other related criteria described in the section "Basis of DNV's opinion" for annual report review.

Responsibilities of the Management of JRTT and DNV

The management of JRTT 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 JRTT management and other interested stakeholders in the Bond as to whether the established criteria have been met, based on the information provided to us. DNV is not responsible for any aspect of the projects or 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 JRTT management and used as a basis for this assessment were not correct or complete.



Basis of DNV's opinion

DNV has conducted the verification against the CBS v3.0^{*1} and associated Sector Technical Criteria through the creation and execution of a verification protocol addressing each requirement of those standard and criteria. The detail of areas covered in the DNV verification is summarized in Schedule 2 below.

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

As per our Protocol, in addition to the CBS v3.0 above, DNV also considers GBP^{*2}, SBP^{*3}, SBG^{*4}, GLP^{*5}, and GBGLs.^{*6} The criteria against which the Sustainability Finance has been reviewed are grouped under the four Principles () as follows:

- Principle One: Use of Proceeds. The Use of Proceeds criteria are guided by the requirement that an fundraiser of Sustainability Finance must use the funds raised to finance eligible activities. The eligible activities should produce clear environmental and/or social benefits.
- Principle Two: Process for Project Evaluation and Selection. The Project
 Evaluation and Selection criteria are guided by the requirements that a
 fundraiser of a Sustainability Finance should outline the process it follows when
 determining eligibility of an investment using 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 fundraiser, 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
 stakeholders should be made of the use of finance proceeds and that
 quantitative and/or qualitative performance indicators should be used, where
 feasible.



Standards/Guidelines	Applicable	e Version*7
	Before December 2022	After December 2022
*1: Climate Bonds Standard v3.0 (Climate Bonds Initiative (CBI))	v2.1 or v3.0	v3.0(no change)
*2: Green Bond Principles (International Capital Markets Association (ICMA))	2018	2021
*3: Social Bond Principles (International Capital Markets Association (ICMA))	2018	2021
*4: Sustainability Bond Guidelines (International Capital Markets Association (ICMA))	2018	2021
*5: Green Loan Principles (Loan Market Association, Asia Pacific and Loan Syndication and Trading Association)	2018	2021
*6: Green Bond Guidelines (Ministry of Environment, Japan)	2017	2022

^{*7:} Due to the revision of the framework, the version of the standards that will be applied from December 2022 has been changed for some standards.

*



Work undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by JRTT 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 includes:

Pre-Issuance Verification and Assessment (completed previously):

- Creation and execution of Climate Bonds Standard Protocol, adapted to include the relevant Sector Technical Criteria for the Finance nominated projects and assets, as described above and in Schedule-2 to this Assessment.
- Assessment of documentary evidence provided by fundraiser on the Finance and supplemented assessment by a high-level desktop research. These checks refer to current assessment best practices and standards methodology.
- Discussions with fundraiser, and review of relevant documentation and evidence related to the criteria of the Protocol.
- Documentation of findings against each element of the criteria.
- Field survey and inspection against the projects and assets.

Post-Issuance Verification, Periodical Verification, and Assessment:

- Assessment of evidential documents provided by JRTT after execution of Sustainability Finance, high level desktop research, document reviews, and supplemental evidential documents obtained through interviews with key personnel of the fundraiser. These assessments refer to best practices in current assessment and standard methodologies.
- Discussions with key personnel of fundraiser management and review of relevant documentation.
- Review of the nominated projects and assets described in Schedule-2 at the time of the periodical verification.
- Documentation of findings from the periodical review in detail.
- Field research and inspection against the projects and assets, if required;

Our opinion as detailed below is a summary of these findings.



Findings and DNV's opinion

Of the Sustainability Finance executed by JRTT in FY2021, DNV conducted assessment on Sustainability Loans (loans executed on 30th November 2021) with unallocated proceeds at the end of FY2021, and Sustainability Finance executed in FY2022 (Bond executed on 30th May, 30th August, 29th November in year 2022 and 27th February, 2023, and Loan executed on 29th March 2023).It is DNV's responsibility to provide an independent verification statement on the compliance of the JRTT Finance with the CBS v3.0.

DNV conducted the verification in accordance with the CBS v3.0 and with International Standard on Assurance Engagements 3000 (excludes audits or reviews of historical information). The verification included i) checking whether the provisions of the CBS v3.0 were consistently and appropriately applied and ii) the collection of evidence supporting the verification.

DNV's verification approach draws on an understanding of the risks associated with conforming to the CBS v3.0 and the controls in place to mitigate these. DNV planned and performed the verification by obtaining evidence and other information and explanations that DNV considers necessary to give limited assurance that the Sustainability Finance continues to meet the requirements of the CBS v3.0.

Based on the limited assurance procedures conducted, we confirmed that the Sustainability Finances are, in all significant material respects, in accordance with the requirements of the CBS v3.0 and relevant associated technical criteria of Land Transport. Furthermore, we also confirmed that the reported impacts associated with the nominated projects and assets are accurate.

DNV also conducted periodical review, other than post-issuance verification of the JRTT's annual report against to the criteria of GBP, SBP, SBG, GLP, and GBGLs accordingly.

DNV's findings and opinions are listed below:



Principle One: Use of Proceeds

<For fund raised in FY 2021>

JRTT has reported on its website that on 30th November 2021, a portion of the unallocated funds of the 55.05 billion yen procured through sustainability loans have been newly allocated to the following businesses.

(1) <u>Sustainability Finance Eligible Project (new allocation)</u>: <u>Sustainability Loan</u> Railway Construction (Project 01 and R-5)

Project 01 R-5: Shinkansen Lines

Allocation of FY 2021 : 28.71 billion JPY

Allocation of FY 2022 : 10.55 billion JPY

Total : 39.26 billion JPY

Unallocated amount : 15.79 billion JPY

It has been confirmed that other sustainability bonds raised in FY2021 is confirmed that was completed its allocation in FY 2021 (Sustainability Bond: 82 billion yen , Sustainability Loans (29^{th} March 2022): 10.1 billion yen) have been allocated within FY2021.

Schedule-1 shows lists and details of sustainability projects.

DNV reviewed the eligibility of the funded projects and assets to meet the criteria for the project categories above. Although a portion of the proceeds raised by the Sustainability Loan raised on 30th November 2021 may not be fully allocated within 24 months of funding (part of the CBSv3.0 requirements), DNV has determined that no critical issues based on the following reasons comprehensively.

- The project is a rail project that meets the land transport requirements of the CBS technical standards and its sustainability is unlikely to deteriorate.
- Approximately 70% of loans are scheduled to be allocated by FY2023, and unallocated proceeds exceeding 24 months will be only a portion of the total.



 There is a high probability that the proceeds will be allocated to such eligible project by FY2026 in accordance with the provisions of Article 19, Paragraph 1 of the Independent Administrative Institution, Japan Railway Construction, Transport and Technology Agency Act.

<Fund raised in FY 2022>

JRTT has reported on its website that the funds raised in FYI 2022 (total amount raised: 80 billion yen in Sustainability Bonds, 21.48 billion yen in Sustainability Loans) have been allocated to the following businesses as refinancing.

(1) Sustainability Finance Eligible Project (refinance): Sustainability Bond

Railway Construction (Project 01 R-2, R-3, R-4)

Project 01 R-2 Main Line and Interurban Lines in Big Cities

Subtotal : 13 billion JPY

Project 01 R-3 Private Sector Railway

Subtotal : 25.9 billion JPY

Project 01 R-4 Urban Railway

Subtotal : 41.1 billion JPY

Total : 80 billion JPY (all allocated)

(2) Sustainability Finance Eligible Project (refinance): Sustainability Loan

Railway Construction (Project 01 R-2, R-3)

Project 01 R-2 Main Line and Interurban Lines in Big Cities

Subtotal : 4.95 billion JPY

Project 01 R-3 Private Sector Railway

Subtotal : 16.53 billion JPY

Total : 21.48 billion JPY (all allocated)

Schedule-1 shows the detail of Sustainability Projects.

DNV has reviewed the eligible projects and assets classified above for which funds have been allocated.



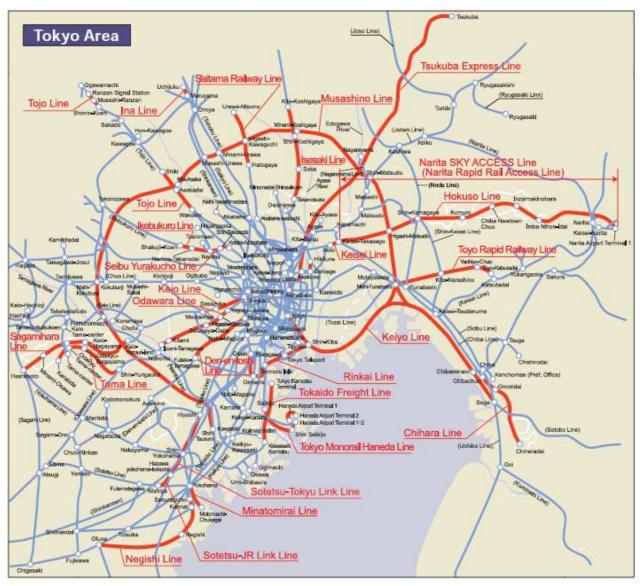


Fig-1 Project 01 example of representative railway construction





Interior view of viaduct (Fukui Prefecture)



Interior view of Tunnel (Fukui Prefecture)



Exterior view of Tsuruga Station #1

(Fukui Prefecture)



Exterior view of Tsuruga Station #1 (Fukui Prefecture)

Fig-2 Project 01 R-5 Representative Construction Example of Shinkansen Line

Principle Two: Process for Project Evaluation and Selection

The proceeds have been allocated solely to new allocation and refinance the projects and assets as defined in Schedule 1. As for the negative impact caused by these projects, appropriate countermeasures and practical action plans which comply with relevant regulations and laws have been taken and will be taken after the evaluation by JRTT. DNV confirmed that JRTT resulted that its effect is limited and appropriate action will be executed if required.

Principle Three: Management of Proceeds



DNV has reviewed evidence showing how JRTT traced the proceeds from the Finance (loan or Bond, from the time of issuance to the time of disbursement or after payment). Most of the proceeds fund has been allocated promptly. The details of the disbursement value are tracked using JRTT's internal protocol. At the end of each financial period (fiscal year), JRTT manages the outstanding balance of the Finance.

In the periodic review conducted in September 2023, DNV confirmed the following regarding the procurement management status as of the end of March 2023 based on the evidence provided by JRTT.

- Of the funds that JRTT procured through sustainability finance in FY2021 (until the end of March 2022), an additional 10.55 billion yen will be allocated to the unallocated sustainability loan of 55.05 billion yen during FY 2022. As of the end of March 2023, 39.26 billion yen has been allocated. As of the end of March 2023, unallocated funds of 15.79 billion yen are managed as cash and cash equivalents. (Unallocated status: More than 70% of the total will be allocated within 24 months, and the full amount will be allocated by 2026).
- All of the 80 billion yen in sustainability bonds and 21.48 billion yen in sustainability loans procured by JRTT in FY2022 (until the end of March 2023) have been allocated as refinancing as planned.

As stated above, DNV provides no assurance regarding the financial performance of the Sustainability Finance, the value of any investments in the Finance, or the effects of the transaction.



Principle Four: Reporting

DNV has confirmed that JRTT discloses its annual report on its website for the specific items required by Sustainability Finance. This includes the project and value of the proceeds invested, as well as the associated qualitative and quantitative environmental impacts based on the MLIT data.

JRTT also discloses environmental and social benefit and management proceeds on its web site.

https://www.jrtt.go.jp/ir/sustainability-finance.html (Reporting)

- CO₂ emission per transportation unit (FY 2021)
- Numbers of passenger of eligible railway project (representative line) (FY 2019)
- FY 2022 Status Report of Proceeds allocation and outstanding
- FY 2022 Refinance share (Unit: %)
- FY 2022 Project progress (funded amount)

Within this, the following information from Project progress has been published on its web site:

- Environmental report 2022
- FY 2022_Annual business report
- FY 2022_Annual financial report
- FY 2022 Annual financial statement
- FY 2022_project report
- Finance information report (Corporate Information Section, Securities Information Section)

^{*}Above includes other business report that are not subject to the Sustainability Finance allocation for FY 2022.



Table-1 shows a list of CO₂ emissions per unit transportation volume by transportation method, updated by the Ministry of Land, Infrastructure, Transport and Tourism as the latest version for FY2021. CO₂ emission per unit (passenger and freight) is comparably lower enough than other transportation categories.

Table-1 CO₂ emission transportation amount (FY 2021)

Reference: Ministry of Land, Infrastructure, Transport and Tourism, Japan (MLIT)

category	passenger : g-CO₂/p-km	freight : g-CO ₂ /t-km
Private light vehicle	132	1,124
Cargo vehicle	-	216
Airplane	124	-
Bus	90	-
Ship	-	43
Railway	<u>25</u>	<u>20</u>



DNV Business Assurance Japan K.K.

16th Nov. 2023

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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.



1. Schedule-1 JRTT Sustainability Finance nominated project/asset portfolio

Table-1 Sustainability Bond raised in FY2021 Project Portfolio (Project No. 01)

	ject o.	Project Portfolio	Sustainability Project Category	Sustainability Project Sub-Category	Funded amount in FY 2021	Remarks
	R-1	Public railway; Railway Project under the Urban Railway Convenience Improvement	•Clean transportation •Affordable basic infrastructure	rail (electric)transportation(public)	_	Railway Construction (Construction Account): Nominated Project •Eastern Kanagawa Lines•etc
	R-2	Main Line and Interurban Lines in Big Cities	·Clean transportation ·Affordable basic infrastructure	·rail (electric) ·transportation (public)	16.8 billion JPY (All allocated in FY 2021)	Railway Construction (Construction Account): the following is project example Nominated Project ·Keiyo line ·Musashino line etc
01	R-3	Private Sector Railway	·Clean transportation ·Affordable basic infrastructure	·rail (electric) ·transportation (public)	32.35 billion JPY (All allocated in FY 2021)	Railway Construction (Construction Account): the following is project example Nominated Project ·Minatomirai 21 line·Odakyu Odawara line etc
	R-4	Urban Railway	·Clean transportation ·Affordable basic infrastructure	·rail (electric) ·transportation (public)	32.85 billion JPY (All allocated in FY 2021)	Railway Construction (Construction Account): Nominated Project • Joban new line (TX line)
	R-5	Shinkansen Lines	Clean transportation Affordable basic infrastructure	rail (electric)transportation (public)	_	Railway Construction (Construction Account): Nominated Project Shinkansen Lines



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						- Hokkaido Shinkan	sen (between Shin-
						Hakodate-Hokuto a	nd Sapporo)
						- Hokuriku Shinkan	sen (between
						Kanazawa and Tsur	ruga)
						- Nishi Kyushu Shin	kansen (between
						Takeo Onsen and N	lagasaki)
			The amount	of assets:	1,256,	497,655,276 JPY	(end of FY 2021)
		Sustainability Finance (Sustainability Bond) allocate	ed amount:	82,0	000,000,000 JPY	(FY 2021 result)
			Unallocate	ed Funds:		0JPY	(end of FY 2021)



Table-2 FY 2021 JRTT Sustainability Loan Project Portfolio (Project No. 01)

Pro	ject	Nominated	Sustainability Project	Sustainability Project	Funded amount	D
N		Project Portfolio	Category	Sub-Category Sub-Category	in FY 2022	Remarks
	R-1	Public railway; Railway Project under the Urban Railway Convenience Improvement	Clean transportation Affordable basic infrastructure	rail (electric)transportation(public)	-	Railway Construction (Construction Account): Nominated Project • Eastern Kanagawa Lines • etc
	R-2	Main Line and Interurban Lines in Big Cities	·Clean transportation ·Affordable basic infrastructure	·rail (electric) ·transportation(public)	6.02 billion JPY (All allocated in FY 2021)	Railway Construction (Construction Account): the following is project example Nominated Project ·Keiyo line ·Musashino line etc
01	R-3	Private Sector Railway	·Clean transportation ·Affordable basic infrastructure	rail (electric)transportation(public)	4.08 billion JPY (All allocated in FY 2021)	Railway Construction (Construction Account): the following is project example Nominated Project ·Minatomirai 21 line·Odakyu Odawara line·etc
	R-4	Urban Railway	Clean transportation Affordable basic infrastructure	rail (electric) transportation(public)	_	Railway Construction (Construction Account): Nominated Project Joban new line (TX line)



Japan F	Shinkansen Lines	·Clean transportation ·Affordable basic infrastructure	• rail (electric) • transportation(public)	39.26 billion JPY (Allocated 10.55 billion JPY in FY 2022)	Railway Const (Construction Nominated Pro Shinkansen Li - Hokkaido Sh (between Shir Hokuto and Sa - Hokuriku Shi (between Kan Tsuruga) - Nishi Kyushu (between Tako Nagasaki)	Account): oject nes inkansen n-Hakodate- apporo) inkansen azawa and
The amount of assets: 1,256,497,655,276 JPY (end of FY 2021) Sustainability Finance (Sustainability Loan) allocated amount: 49,360,000,000 JPY (FY 2022 result) Unallocated amount: 15,790,000,000 JPY (FY 2022 result)						



Table-3 FY 2022 JRTT Sustainability Bond Project Portfolio (Project No. 01)

Pro	ject	Nominated	Sustainability Project	Sustainability Project	Funded amount	Barranda
	0.	Project Portfolio	Category	Sub-Category Sub-C	in FY 2022	Remarks
	R-1	Public railway; Railway Project under the Urban Railway Convenience Improvement	Clean transportation Affordable basic infrastructure	rail (electric)transportation(public)	_	Railway Construction (Construction Account): Nominated Project •Eastern Kanagawa Lines•etc
	R-2	Main Line and Interurban Lines in Big Cities	·Clean transportation ·Affordable basic infrastructure	rail (electric)transportation(public)	13 billion JPY	Railway Construction (Construction Account): the following is project example Nominated Project ·Keiyo line ·Musashino line etc
01	R-3	Private Sector Railway	·Clean transportation ·Affordable basic infrastructure	·rail (electric) ·transportation(public)	25.9 billion JPY	Railway Construction (Construction Account): the following is project example Nominated Project ·Minatomirai 21, line·Odakyu Odawara line, Hokuso Line, Seibu-Yurakucho Line, Seibu-Ikebukuro-Line, Saitama High Speed Railway, Rinkai-Fukutoshin Line Phase 2 etc.



_	зарап н	Railway Construction, Transport and Technology Ag	ency(JKTT) Sustainability Finance Post-	assuance verincation and Periodical Re	eview (Stil)			
				·rail (electric)		Railway Construction		
			·Clean transportation	transportation(public)		(Construction Account) : the		
	R-4	Urban Railway	·Affordable basic		41.1 billion JPY	following is project example		
			infrastructure					
						·Joban new line (TX line)		
						Railway Construction		
						(Construction Account):		
				·rail (electric)		Nominated Project		
			·Clean transportation ·Affordable basic infrastructure			Shinkansen Lines		
						- Hokkaido Shinkansen		
						(between Shin-Hakodate-		
	R-5	-5 Shinkansen Lines			-	Hokuto and Sapporo)		
				·transportation(public)		- Hokuriku Shinkansen		
						(between Kanazawa and		
						Tsuruga)		
						- Nishi Kyushu Shinkansen		
						(between Takeo Onsen and		
						Nagasaki)		
	The amount of assets: 1,201,133,073,159 JPY (end of FY 2022)							
	Sustainability Finance (Sustainability Loan) allocated amount: 80,000,000,000 JPY (FY 2022 result)							

Unallocated amount: 0 JPY (end of FY 2022)



Table-4 FY 2022 JRTT Sustainability Loan Project Portfolio (Project No. 01)

Pro	ject	Nominated	Sustainability Project	Sustainability Project	Funded amount	Barranda
	0.	Project Portfolio	Category	Sub-Category	in FY 2022	Remarks
	R-1	Public railway; Railway Project under the Urban Railway Convenience Improvement	Clean transportation Affordable basic infrastructure	rail (electric)transportation(public)	_	Railway Construction (Construction Account): Nominated Project •Eastern Kanagawa Lines•etc
	R-2	Main Line and Interurban Lines in Big Cities	·Clean transportation ·Affordable basic infrastructure	rail (electric)transportation(public)	4.95 billion JPY	Railway Construction (Construction Account): the following is project example Nominated Project ·Keiyo line ·Musashino line etc
01	R-3	Private Sector Railway	·Clean transportation ·Affordable basic infrastructure	·rail (electric) ·transportation(public)	16.53 billion JPY	Railway Construction (Construction Account): the following is project example Nominated Project ·Minatomirai 21, line·Odakyu Odawara line, Hokuso Line, Seibu-Yurakucho Line, Seibu-Ikebukuro-Line, Saitama High Speed Railway, Rinkai-Fukutoshin Line Phase 2 etc.



			·rail (electric)		Railway Construction
		·Clean transportation	transportation(public)		(Construction Account) : the
R-4	Urban Railway	·Affordable basic		-	following is project example
		infrastructure			
					·Joban new line (TX line)
					Railway Construction
	Shinkansen Lines ·A		·rail (electric) ·transportation(public)		(Construction Account):
					Nominated Project
					Shinkansen Lines
				-	- Hokkaido Shinkansen
		·Clean transportation			(between Shin-Hakodate-
R-5		·Affordable basic			Hokuto and Sapporo)
		infrastructure			- Hokuriku Shinkansen
					(between Kanazawa and
					Tsuruga)
					- Nishi Kyushu Shinkansen
					(between Takeo Onsen and
					Nagasaki)

The amount of assets:

1,201,133,073,159 JPY (end of FY 2022)

Sustainability Finance (Sustainability Loan) allocated amount:

21,480,000,000 JPY

(FY 2022 all allocated)

Unallocated amount:

0 JPY

(end of FY 2022)



2. Schedule-2 CBS v3.0 Verification Criteria

Summary criteria for assertions of compliance with the CBS v3.0

Prior to incorporating eligible projects and assets for the Finance, the criteria for reviewing relevant projects and assets are categorized based on CBS 3.0 and technical criteria. The main requirements of CBS3.0 version and technical criteria are roughly categorized into Part A to Part C in the table below.

DNV has verified that JRTT conforms with all requirements here based on the evidence provided JRTT's relevant documents and interview through verification. Hereafter, "bond" also includes loans.

Part A: Pre-Issuance Requirements

Area	Requirements	
1. Use of Proceeds	The all Net Proceeds of the Bond shall be allocated to the Nominated Projects & Assets.	
2. Process for Evaluation and Selection of	The Issuer shall document and maintain a decision-making process which it uses to determine the continuing	
Projects & Assets	eligibility of the Nominated Projects & Assets.	
2 Managament of Draggada	The Net Proceeds of the Bond can be credited to a sub-account, moved to a sub-portfolio, or otherwise tracked	
3. Management of Proceeds	by the Issuer in an appropriate manner and documented.	
	The issuer shall clarify the disclosure of the framework, eligible criteria, management of allocation (new	
4. Reporting (Pre Issuance)	investment and refinancing) unallocated funds, preparation of update reports including project information and	
	disclosure plans.	



Part B: Post-Issuance Requirements

Area	Requirements		
	The all Net Proceeds of the Bond shall be allocated to the Nominated Projects & Assets.		
5. Use of Proceeds	Allocated projects and assets should not be mixed with other green bonds, loans, etc. In addition, the value of the		
5. Ose of Proceeds	target project and assets should be at least equal to or greater than the bond issuance amount (at the time of		
	issuance) or the issued amount.		
6. Process for Evaluation and Selection of	The Issuer shall document and maintain a decision-making process which it uses to determine the continuing		
Projects & Assets	eligibility of the Nominated Projects & Assets.		
7 Managament of Draggada	The Net Proceeds of the Bond shall be credited to a sub account, moved to a sub portfolio, or otherwise identified		
7. Management of Proceeds	by the Issuer in an appropriate manner, and documented.		
	The Issuer shall prepare and disclose an Update Report at least annually while the Bond remains		
O Depositing (Post Issuence)	outstanding. The update report shall include allocation reporting, environmental improvement effect and		
8. Reporting (Post-Issuance)	information about the target project. Information required for eligibility shall be provided to the verifier		
	and to the Climate Bonds Standard Board.		

Part C: Eligibility of Projects & Assets

Area	Requirements
9. Climate Bonds Taxonomy	Nominated Projects & Assets shall fall into one or more of the investment areas listed as included in the Climate Bonds
	Taxonomy.
10. Sector Eligibility Criteria	Nominated Projects & Assets shall meet the specific eligibility requirements provided in the relevant Sector Eligibility
	Criteria documents.
	Followings are outline of the sector criteria against the verification
	Low carbon land transport



All electrified public transport (infrastructure, infrastructure refurbishment, rail and transport vehicles) meets the standards. For example, electrified railroads, trams, trolleys, buses, and cable cars.

Land Transport

The scope of coverage in the land transport sector is as follows, and projects that meet individually set eligibility criteria are eligible.

(Example of Eligibility Criteria: The mode of transport is electric, Being below the upper limit of CO₂ emissions per unit transportation distance, Manufacture, purchase and leasing business of major parts (batteries, etc.) used in eligible vehicles, Construction, development, purchase and operation of railway networks and railway lines, etc., Station buildings and maintenance sites that contribute to the operation of eligible projects, ICT maintenance, etc.)

- · Passenger cars and Commercial vehicles
- · Public passenger transport and Freight transport by road
- Passenger rail transport rolling stock and Freight rail transport rolling stock
- · Rail transport networks and Rail line
- · Miscellaneous vehicles for other sectors
- Infrastructure for low carbon transport



3. Schedule-3 Sustainability Finance Eligibility Assessment Protocol

Checklist-1 Sustainability Finance Guideline (SBG) Eligibility Checklist

Sustainability Finance means JRTT's general proceeds instruments including both bond and loan including this checklist. JRTT Sustainability Finance Framework, official bond statement and loan document, etc. will be published for explanation to investor on JRTT's website as follows:

https://www.jrtt.go.jp/ir/sustainability-finance.html

Following $(1)\sim(4)$ are based on Sustainability Bond Guideline (ICMA), Green Bond Principle (ICMA), and Social Bond Principle (ICMA) and DNV describes findings in the checklists based on the evidence provided JRTT's relevant documents and interview through verification.

(1) SBG-1 Use of Proceeds

Ref.	Criteria	Requirements	DNV Findings
1a	Type of bond	The Sustainability Bond must fall in one of the following categories defined by the GBP Principles: Sustainability Bond Sustainability Revenue Bond Sustainability Project Bond	The reviewed evidence confirms that the Bond falls in the category: Sustainability Bond



Ref.	Criteria	Requirements	DNV Findings
		Sustainability Securitized Bond	
1b	Project Categories	The cornerstone of a Sustainability Bond is the utilization of the proceeds of the bond which should be appropriately described in the legal documentation for the security.	As identified by the purpose of the loan is to use the proceeds to finance and refinance for projects falling under the following categories; FY 2021, the full amount of 82 billion JPY in Sustainability Bonds and 49.36 billion JPY out of 65.15 billion JPY in Sustainability Loans have been allocated to the projects No. 01 R-2, R-3, R-4, and R-5 within FY 2022. Additionally, as of the end of FY2022, all of the 80 billion yen in bonds and 21.48 billion yen in loans raised through Sustainability Finance in FY2022 have been allocated to the following Project No. 01 R-2, R-3, and R-4. **CRailway Construction** R-1 Public railway; Railway Project under the Urban Railway Convenience Improvement R-2 Main Line and Urban Lines in Big Cities R-3 Private Sector Railway R-4 Urban Railway R-5 Shinkansen Lines **Project 02 Joint Ownership shipbuilding** Joint ownership shipbuilding (freight and passenger ship) DNV's assessment concluded that these asset and project would present eligible project against green and social bond principles, sustainability bond guidelines, and green loan principles. Above information was included in official document about a bond and loan issued by JRTT. DNV concluded that 1b

DNV

Japan Railway Construction, Transport and Technology Agency(JRTT) Sustainability Finance Post-Issuance Verification and Periodical Review (5th)

Ref.	Criteria	Requirements	DNV Findings
			requirement is satisfied. In case that new project is nominated, JRTT will evaluate and its eligibility and disclose it as official document.
1c	Environment al and Social benefits	All designated Sustainability Project categories should provide clear environmentally sustainable benefits, which, where feasible, will be quantified or assessed by the issuer.	As a CBI verifier, DNV applied the CBS issued by the CBI and technical standards in the necessary fields (low carbon transport and land transport) to confirm the eligibility of the project. In addition, it was confirmed qualitatively and in some cases quantitatively that it has both environmental and social benefits. DNV confirmed that JRTT evaluates its benefit qualitatively and quantitively as much. DNV also confirmed that JRTT determines the relationship between those projects and SDGs mapping. DNV reviewed JRTT provided document and explanation that JRTT already identified the environmental risk and addressed appropriate countermeasures. DNV concluded that 1c requirement is satisfied.
1d	Refinancing share	If all or part of the proceeds will be used for refinancing, or there is a possibility that the issuer will accordingly, it is recommended to identify which investments or project portfolios are eligible for refinancing.	The proceeds raised in FY 2021 were allocated to new and refinancing railway construction operations included in Schedule-1 (FY2021 and FY 2022 results). The proceeds raised in FY 2022 were all allocated to refinancing railway construction operations included in Schedule-1 (FY2022 results). For details, the official documentation regarding borrowings discloses to investors the distinction between financing and refinancing for each project.



(2) SBG-2 Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	DNV Findings
2a	Project Selection process	The issuer of a Sustainability Bond should outline the decision-making process it follows to determine the eligibility of projects using Sustainability Bond proceeds. This includes, without limitation: • A process to determine how the projects fit within the eligible Sustainability Projects categories identified in the Green Bond Principles and Social bond principle; • The criteria making the projects eligible for using the Sustainability Bond proceeds; and • The environmental and social sustainability objectives	Under the JRTT Sustainability Finance Framework, the issuer (JRTT) selected projects based on the following criteria. Eligible projects are those that are consistent with the JRTT Basic Philosophy and Basic Environmental Policy, and the two operations (railway construction work and Joint Ownership Shipbuilding) carried out by JRTT are eligible for the Green Bond Principles and the Social Bond Principles, as well as the Climate Bond Principles. The following were selected in consideration of their compliance with CBI v3.0 and related field technical standards. Regarding Joint Ownership Shipbuilding, the technical standards for maritime transport (water transportation) as verification standards for climate bond standards were not valid at the time of pre-issuance verification, so verification will be required when implementing the project in the future. <reference criteria=""> -Climate Bonds Standard (version 3.0 Low Carbon Land Transport and Land Transport) -Green Bond Principles (ICMA) -Social Bond Principles (ICMA) -Social Bond Principles (ICMA) -Green Loan Principles (Loan Market Association) -Green Loan Principles (Asia Pacific Loan Market Association) -Green Loan Principles (The Loan Syndication and Trading Association) -Green Bond Guidelines (Ministry of the Environment) (Reference: Green Bonds, Social Bonds; SDGs Related: High Level Mapping to Sustainable Goals (ICMA)) <eli><eli>clean Transportation (Railway Construction, Joint Ownership shipbuilding) - Pollution prevention and control (Joint Ownership shipbuilding)</eli></eli></reference>



Ref.	Criteria	Requirements	DNV Findings
			 Essential and imperative transportation infrastructure (Railway Construction, Joint Ownership shipbuilding) Low cost and easy access for various customers (Railway Construction, Joint Ownership shipbuilding) Efficient distribution (Joint Ownership shipbuilding) Operation of routes to remote island (Joint Ownership shipbuilding) Those nominated project portfolio is discussed with JRTT's related department and responsibilities (JRTT boards). DNV confirmed that JRTT determines the relationship between those projects and SDGs mapping. DNV concluded that 2a requirement is satisfied through interview and document review.
2b	Issuer's environment al and social and governance framework	In addition to information disclosed by an issuer on its Sustainability Bond process, criteria and assurances, Sustainability Bond investors may also take into consideration the quality of the issuer's overall framework and performance regarding environmental sustainability.	As per the interview and review documents provided by JRTT, DNV confirmed that JRTT has addressed to achieve both sustainable green and social activities according to environmental action(https://www.jrtt.go.jp/corporate/efforts/environment.html) and domestic marine route for future creative plan published by MLIT(http://www.mlit.go.jp/common/001190904.pdf). DNV also confirmed that JRTT has issued and intends to issue the loan and bonds continuously based on their framework which aligns with CBS requirement and CBI certification with programmatic certification. https://www.climatebonds.net/certification/get-certified https://www.climatebonds.net/programmatic-certification. DNV concluded that 2a requirement is satisfied.



(3) SBG-3 Management of Proceeds

Ref.	Criteria	Requirements	DNV Findings
3a	Tracking procedure-1	The net proceeds of Sustainability Bonds should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for Sustainability Projects.	JRTT is stipulated that the proceeds can only be used for purposes approved by the MLIT after applying for individual approval for the use of the funds, and this is stipulated in various laws and regulations that have been confirmed. The proceeds are deposited into separate accounts, and balances are managed separately by setting up sub-accounts for each department and individual project (purpose of use) using various management tables. DNV has conducted actual documentation verification and concludes that 3a is satisfied.
3b	Tracking procedure-2	So long as the Sustainability Bonds are outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible sustainability investments or loan disbursements made during that period.	Various financial statements are used to manage the amount of procured funds allocated to the project and the unallocated balance at least once a year during the bond redemption period (or loan payment). DNV has confirmed the actual documents (fund settlement 2022 and related materials) and concludes that 3b is satisfied.
3c	Temporary holdings	Pending such investments or disbursements to eligible Sustainability Projects, the issuer should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.	According to the Japanese incorporated administrative agency general law, temporary investment instrument is limited to avoid risks. It is clearly described some options of the balance of the bond proceed will be managed safely instrument in framework. DNV concluded that 3c requirement is satisfied. In an assessment conducted on 6 th September 2023, DNV found that as of the end of FY 2022, there were 15.79 billion yen of unallocated funds procured through sustainability loans in fiscal 2021, and that there were unallocated funds of 15.79 billion yen in cash or cash equivalents. The funds raised in FY2022 has been fully allocated as of the end of FY2022.



(4) SBG-4 Reporting

Ref.	Criteria	Requirements	DNV Findings
4a	Periodical reporting	In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, issuers should provide at least annually a list of projects to which Sustainability Bond proceeds have been allocated including: - when possible, with regards to confidentiality and/or competitive considerations - a brief description of the projects and the amounts disbursed, as well as the expected environmentally and social sustainable impact.	JRTT has published the annual report including a dedicated section on the Finance on JRTT website. This includes description of the project and value of the proceeds invested, as well as the associated environmental impact. DNV reviewed that JRTT has already reported them in its website. DNV confirmed it as per report in its website, then concluded that 4a requirement is satisfied. https://www.jrtt.go.jp/ir/sustainability-finance.html (Refer to the reporting section)