



SECOND PARTY OPINION

NYK LINE

GREEN BOND #2 PERIODIC REVIEW

Prepared by: DNV Business Assurance Japan K.K.

Location: Kobe, Japan

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Publication History

Date of Issue	Remarks
29 March 2024	Green Bond #2 ANNEX
5 June 2025	Green Bond #2 Periodic Review (NYK's 48th unsecured bond)



Scope and Objectives

Nippon Yusen Kabushiki Kaisha (hereinafter 'NYK') has engaged DNV Business Assurance Japan (hereinafter 'DNV') to conduct a periodic review of the NYK Green Bond (NYK 48th Unsecured Bond. Hereinafter 'the Bond'). The purpose of the periodic review by DNV is to ensure that the Bond complies with the Green Bond Principles (ICMA 2021; hereinafter 'GBP') and Green Bond Guidelines (MOE 2020; hereinafter 'GBGL'), which are the standards described below, and to provide an independent second party opinion on the eligibility of the Bond.

NYK issued the Bond on 17 April 2024. The issue amount of the Bond is 10 billion yen. DNV's review team conducted the first periodic review under the GBP and GBGL during the period between April 2024 and March 2025.

This report provides a periodic review of the requirements of green bonds (Elements -1 to -4, as described below).

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 NYK.

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.

Standards/guidelines to be applied

No.	Standards/guidelines	Scheme owner	Applied level
1.	Green Bond Principles (GBP)	International Capital Market Association (ICMA), 2021	Apply
2.	Green Bond Guidelines (GBGL)	Ministry of Environment, 2022	Apply
3.	Shipping Criteria version 1b (Sector Technical Criteria)	Climate Bonds Initiative (CBI), 2020	Apply

Apply: Eligibility for all four elements to each handbook, principle, and guideline was evaluated.



Responsibilities of NYK and DNV

NYK has provided the information and data used by DNV during the delivery of this review. DNV's statement represents an independent opinion and is intended to inform NYK 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, DNV has relied on the information and the facts presented to us by NYK. 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 NYK's management and used as a basis for this assessment were not correct or complete.

Basis of DNV's Opinion

To provide as much flexibility for the issuer, NYK, as possible, we have adapted our green bond assessment methodologies, which incorporate the requirements of the GBP and GBGL to create a NYK Green Bond Eligibility Assessment Protocol (hereinafter "Protocol"). The Protocol is applicable to GBP and GBGL based green bonds. Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle and guidelines behind the criteria are that green bonds should "enable capital-raising and investment for new and existing projects with environmental and social benefits." DNV conducted a periodic review applying the following four elements in relation to the operation and management of green finance (with specific use of proceeds).

- **Principle One: Use of Proceeds**

The Use of Proceeds criteria are guided by the requirement that a fundraiser of green finance (with specific use of proceeds) must use funds raised to finance 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 a fundraiser of a green finance (with specific use of proceeds) should outline the process it follows when determining eligibility of an investment using green 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 green finance (with specific use of proceeds) should be tracked within the fundraiser 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 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.

Work Undertaken

Our work constituted a comprehensive review of the available information, based on the understanding that this information was provided to us by NYK 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:

Initial (green bond pre-issuance) assessment *Not included in this report

- Creation of the NYK-specific Protocol for application to finance.
- Assessment of documentary evidence provided by NYK on the Bond and supplemented assessment by a high-level desktop research. These checks refer to current assessment best practices and standards methodology.
- Discussions with NYK, and review of relevant documentation.
- Documentation of findings against each element of the criteria.

Periodic (annual) review *Contents of this report

- Review of evidence documentation provided by NYK in relation to green bond execution, supplemented by high-level desktop research, document review and interviews with key personnel. These checks refer to current best practices of evaluation and standard methodologies.
- Discussion with NYK management and review of relevant document controls.
- Field research and inspections (if required).
- Review of covered projects and assets at the time of periodic review.
- Documentation of periodic review observations, as detailed in this document.

DNV's opinion statement (see below for details) summarises these.

Findings and DNV's Opinion

●Principle One: Use of Proceeds

DNV has confirmed that as of March 2025, 4.9 billion yen out of the proceeds from NYK Green Bond #2 (10 billion yen) has been allocated to the following projects.

1. Part of the funds for the construction of one ammonia-fuelled ammonia carriers

An overview of the ammonia-fuelled ammonia carriers is as follows.

The ammonia-fuelled ammonia carriers are dual-fuel vessels that run on heavy oil and ammonia, which are designed to enable the future substitution of heavy oil with biofuels and ammonia with blue or green ammonia. DNV confirmed prior to the bond issuance that the vessels are planned to consistently meet the CBI technical criteria throughout their anticipated service life. DNV also confirmed that the construction of the ammonia-fuelled ammonia carriers is progressing as planned as of March 2025.



Figure-1: Image of ammonia-fuelled ammonia carriers

Table-1: Overview of ammonia-fuelled ammonia carriers

Project name:	Ammonia-fuelled ammonia carriers
Planned allocation amount:	Approx. 10 billion yen
Length overall:	180.00 m
Breadth:	32.00 m
Molded depth:	18.45 m
Load capacity:	Approx. 40,000 m ³
Gross tonnage:	Approx. 30,000 tonnes
Scheduled completion date:	End of November 2026
Estimated environmental benefits:	Main Engine: Co-firing rate maximum 95% Auxiliary vessel: Co-firing rate higher than 80% Aim to achieve higher than 80% GHG reduction rate as a whole vessel



● Principle Two: Process for Project Evaluation and Selection

During evaluation and selection process of the green project by NYK, DNV confirmed that the transition project met the eligibility criteria.

As part of the specific evaluation and selection process, DNV confirmed that projects were evaluated and selected by the Environment Group, the Technical Group, and the Finance Group based on a comprehensive analysis of the financial, technical and market environmental aspects, with the final decision made by the Finance officer.

● Principle Three: Management of Proceeds

DNV reviewed the evidence presented on how NYK managed the proceeds from the issuance of the Bond until March 2025. The allocation status of proceeds is as shown in Table-2.

DNV confirmed that the proceeds were credited to the NYK Group's account, and then the Finance Group managed the allocation for each project using the following internal system and internal control process.

- As an internal control process, the Finance Group organized the allocation status annually and reported it to the Chief Financial Officer (CFO) for approval.

DNV confirmed that 4.9 billion yen (of which 2.8 billion yen for refinancing) out of the proceeds was allocated by March 2025, and that the remaining 5.1 billion yen is managed in cash. DNV also confirmed that the unallocated proceeds are planned to be allocated to the construction of ammonia-fuelled ammonia carriers project, which is currently under construction and scheduled for completion by the end of 2026.

As noted earlier, no assurance is provided regarding the financial performance of the Bond, the value of any investments in the Bond, or the long-term environmental and social benefits of the transaction.

Table-2: Allocation status of proceeds (April 2024 – March 2025)

Green Project	Allocated amount
Ammonia-fuelled ammonia carriers	4.9 billion yen
Total allocation (refinancing amount)	4.9 billion yen (2.8 billion yen)
Unallocated amount	5.1 billion yen

• Principle Four: Reporting

DNV confirmed that NYK plans to disclose the allocation status of proceeds shown in Table-2 and the major specifications of ammonia-fuelled vessels shown in Table-3 on the NYK website. DNV also confirmed that the Framework states that reporting is until the proceeds has been fully allocated, and that it will be disclosed until the proceeds are allocated to the said project.

Table-3: Major specifications of ammonia-fuelled vessels

Ammonia-fuelled vessels	Per vessel
Length overall	Approx. 180.00 m
Breadth	Approx. 32.00 m
Gross tonnage	30,000 tonnes
Load capacity	40,000 m ³

Table-1 (re-posted): Overview of ammonia-fuelled ammonia carriers

Project name:	Ammonia-fuelled ammonia carriers
Planned allocation amount:	Approx. 10 billion yen
Length overall:	180.00 m
Breadth:	32.00 m
Molded depth:	18.45 m
Load capacity:	Approx. 40,000 m ³
Gross tonnage:	Approx. 30,000 tonnes
Scheduled completion date:	End of November 2026
Estimated environmental benefits:	Main vessel: Co-firing rate maximum 95% Auxiliary vessel: Co-firing rate higher than 80% Aim to achieve higher than 80% GHG reduction rate as a whole vessel



DNV Statement of Opinion

On the basis of the information provided by NYK and the work undertaken, it is DNV's opinion that NYK Green Bond meets the criteria established in the Protocol and that it is aligned with the stated definitions or purposes of green bonds within the GBP and GBGL, which are to "enable capital-raising and investment for new and existing projects with environmental benefits."

DNV Business Assurance Japan K.K.

5 June 2025

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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 Issuer and the Second-Party Opinion Providers, DNV: The management of Issuer 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 Issuer 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 Issuer. 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 Issuer's management and used as a basis for this assessment were not correct or complete.

Schedule-1 Green Bond Eligibility Assessment Protocol

The checklists below (GBP-1 ~ GBP-4) are DNV assessment procedures developed for NYK green bond eligibility assessments, based on Green Bond Principles (GBP).

GBP-1 Use of Proceeds

Ref.	Criteria	Requirements	Work Undertaken (items checked)	DNV Findings
1a	Type of funds	The types of green bonds are classified into one of the following types defined by GBP. • (Standard) Green bond • Green revenue bond • Green project bond • Other	Confirmed documents -Framework Interviews with stakeholders	Through the evaluation work, DNV confirmed that NYK Green Bond #2 falls into the following category. • (Standard) Green bond
1b	Transition project classification	The key to a green bond is that the proceeds will be used for a green project, which should be properly stated in the legal documents relating to the security.	Confirmed documents -Framework Interviews with stakeholders	DNV confirmed that NYK Green Bond #2 aimed to fund a wide range of green projects focused on the NYK Group's environmental goals, as described in the Framework. Green projects conform with NYK's transition strategy and plan to continuously meet the CBI technical criteria throughout the green project period. DNV confirmed that the proceeds from green bonds were allocated to green projects. The specific project to which the proceeds were allocated is project classification 03 'Ammonia Fuelled Vessel' in the category 'Fuel conversion, technology innovation, clean transportation.'

Ref.	Criteria	Requirements	Work Undertaken (items checked)	DNV Findings																									
				Through the assessment, DNV concludes that the green projects will bring concrete and actual environmental benefits. <table><tr><th colspan="2">Project classification</th><th>Category</th></tr><tr><td>01</td><td>Offshore wind power</td><td rowspan="2">Renewable energy</td></tr><tr><td>02</td><td>Green Terminal</td></tr><tr><td>03</td><td>Ammonia fuelled vessel</td><td rowspan="2">Fuel conversion, technology innovation, clean transportation</td></tr><tr><td>04</td><td>Hydrogen fuelled cell vessel</td></tr><tr><td>05</td><td>LNG fuelled vessel</td><td>Fuel conversion</td></tr><tr><td>06</td><td>LNG fuel supply vessel</td><td>Technology innovation</td></tr><tr><td>07</td><td>LPG fuelled vessel</td><td>Clean transportation</td></tr><tr><td>08</td><td>Operation efficiency & optimization</td><td>Clean transportation Energy efficiency</td></tr></table>	Project classification		Category	01	Offshore wind power	Renewable energy	02	Green Terminal	03	Ammonia fuelled vessel	Fuel conversion, technology innovation, clean transportation	04	Hydrogen fuelled cell vessel	05	LNG fuelled vessel	Fuel conversion	06	LNG fuel supply vessel	Technology innovation	07	LPG fuelled vessel	Clean transportation	08	Operation efficiency & optimization	Clean transportation Energy efficiency
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1c	Environmental benefits	All green projects to which the funds are used should have clear environmental benefits, the effects of which should be assessed by NYK and, where possible, quantitatively demonstrated.	Confirmed documents -Framework -Annual reporting draft Interviews with stakeholders	The green project contributed to the goals based on the NYK Group's transition strategy and had environmental benefits such as CO₂ reduction through low carbonization through the projects in the project classification and category shown in 1b. It was confirmed that the environmental benefits would be quantitatively evaluated as the amount of CO₂ emission reduction rate and reported annually.																									
1d	Refinancing rate	If all or part of the proceeds are used or may be used for refinancing, NYK will indicate the estimated ratio of the initial	Confirmed documents -Framework -Annual reporting draft	DNV confirmed that NYK allocated all proceeds for new investment and refinancing for eligible projects.																									

Ref.	Criteria	Requirements	Work Undertaken (items checked)	DNV Findings
		investment to the refinancing, if necessary. Therefore, it is recommended to clarify which investment or project portfolio is subject to refinancing.	-Internal approval documents Interviews with stakeholders	Through the annual report, NYK clarifies the estimated amount of the proceeds that is allocated to refinancing.

GBP-2 Process for Project Evaluation and Selection

Ref.	Criteria	Requirements	Work Undertaken (items checked)	DNV Findings
2a	Project selection process	NYK should provide an overview of the process of qualifying projects for which green bond funding will be used. This includes (but is not limited to): • The process by which NYK determines that the project in question is included in the business category of a qualified green project • Creation of criteria for eligibility of projects for which green bond funding will be used • Environmental sustainability goals	Confirmed documents -Framework -Internal approval documents Interviews with stakeholders	DNV confirmed that NYK had a process of evaluating the eligibility of the projects, and that the green projects were evaluated and selected based on the process.
2b	NYK's environmental and social governance framework	In addition to criteria and certifications, the information published by NYK regarding the green bond process also considers the quality of performance of NYK's framework and environmental sustainability.	Confirmed documents -Framework -NYK green bond selection/evaluation procedure Interviews with stakeholders	DNV confirmed that the green projects carried out by NYK are consistent with their management and environmental policies and with the transition strategies, goals, and pathways. DNV also confirmed that, in the operation and implementation of the project, NYK was working on the conservation of the surrounding environment in each related department, which the company regularly monitors in the PDCA cycle.

GBP-3 Management of Proceeds

Ref.	Criteria	Requirements	Work Undertaken (items checked)	DNV Findings
3a	Tracking procedure-1	The net proceeds from green bonds should be managed in sub-accounts, included in a sub-portfolio, or otherwise tracked. It should also be certified by NYK in a formal internal process related to NYK's investment and financing operations for the Green Project.	Confirmed documents -Framework -Internal approval documents -Financial statements Interviews with stakeholders	DNV confirmed that all proceeds from green bonds have been deposited into NYK's account, tracked in accordance with NYK's accounting system, and verified as appropriate through an internal verification process.
3b	Tracking procedure-2	During the green bond redemption period, the balance of proceeds that is being tracked should be adjusted at regular intervals to match the amount allocated to eligible projects undertaken during that period.	Confirmed documents -Framework -Accounting system -Internal approval documents Interviews with stakeholders	DNV confirmed that a portion of the proceeds from green bonds are managed separately as allocated and unallocated proceeds in the annual report.
3c	Temporary holding	If no investment or payment has been made in an eligible green project, NYK should also inform the investor of the possible temporary investment method for the balance of unallocated proceeds.	Confirmed documents -Framework -Internal approval documents Interviews with stakeholders	DNV confirmed that a portion of the proceeds from green bonds has been allocated to the said project and that the unallocated proceeds are being managed in cash.

GBP-4 Reporting

Ref.	Criteria	Requirements	Work Undertaken (items checked)	DNV Findings
4a	Periodic reporting	In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, NYK will consider each project at least once a year for projects to which the green bond proceeds have been allocated, taking into account the following: A list of each project should be provided. - Confidentiality and competitive considerations - Outline of each project, expected sustainable environmental and social effects	Confirmed documents -Framework -Annual reporting draft Interviews with stakeholders	DNV confirmed that NYK carried out an annual reporting of green bonds until the proceeds were allocated. DNV also confirmed that NYK plans to disclose information on the allocation status of proceeds, the projects to which the proceeds have been allocated, and environmental benefits. <Allocation status of proceeds> - Allocated amount - Approximate amount of the portion of the proceeds allocated for refinancing <Environmental benefits> - Major specifications of vessels