

————— JCR Green Loan Evaluation by Japan Credit Rating Agency, Ltd. —————

Japan Credit Rating Agency, Ltd. (JCR) publishes the results of its Green Loan Evaluation as follows.

JCR Assigned Green 1 to Long-Term Loan Borrowed by NISSEN KAIUN CO., LTD.

S u b j e c t	: Following loans borrowed by NISSEN KAIUN CO., LTD. .
T y p e	: Long-term debt (commitment-type term loans)
L e n d e r	: Syndicate arranged by Sumitomo Mitsui Banking Corporation
Borrowing Amount	: JPY 2.8 billion
Date of the loan a g r e e m e n t	: June 26, 2019
Repayment date	: Commitment period: 1 year + Maximum 9 years after individual loans ※ Depending on the age of the vessels to be loaded with scrubbers, the due date for repayment (period) differs.
Repayment method	: Straight-line method of repayment within the respective remaining statutory useful lives (up to nine years of straight-line method of repayment)
Use of proceeds	: Capital Investment (Establishment of Environmentally Conscious Facilities (Scrubbers))

<Green Loan Evaluation Results>

Overall evaluation	Green 1
Evaluation of Greenness (use of proceeds)	g1
Evaluation on Management, Operation and Transparency	m1

Chapter 1: Evaluation Overview

Established in 1889, NISSEN KAIUN CO., LTD. (Nissen Kaiun) is the owner of ocean-going vessels on the Hakata island of Imabari City, Ehime Prefecture, and has one of the largest fleets in Japan. In 1959, it reorganized its own management, and after becoming a joint-stock corporation, it steadily expanded its business scope. Since the 1970s, he has entered the field of modern vessels, followed by a far-sea route. Nisshin Kaiun is in the process of complying with environmental regulations and installing ballast water treatment equipment on almost all ships and is actively introducing various types of energy-saving equipment. In response to SO_x emission regulations, the ratio of

vessels equipped with scrubbers will be increased to the greatest extent possible, and scrubbers will be installed on almost all vessels in the future.

The subject of this evaluation is a long-term loan (this loan) for which the company borrows syndicated loans from Sumitomo Mitsui Banking Corporation as the arranger and agent. JCR evaluates whether this loan complies with the Green Loan Principles established by Loan Market Association and Asia Pacific Loan Market Association in March 2018.

The proceeds raised through this borrowing will be used to fund the installation of scrubbers, which are equipment to remove sulfur from exhaust gases on our vessels. The establishment of scrubbers is one of the measures for complying with IMO regulations that will become mandatory beginning in 2020. In addition, the scrubbers that are scheduled to be introduced at this time have all cleared the conditions required under the MARPOL Convention (sulfur oxide (SO_x) concentration of 0.5% or less), which is considered to have a significant effect on environmental improvement. In terms of negative environmental effects, there is an increase in CO₂ emissions due to power consumption of scrubbers. However, the power consumption of scrubbers can be handled by existing generators of ships, and the addition of power generators is not required. Therefore, there is no significant increase in CO₂ emissions due to increased power consumption. It was also confirmed that the scrubber wastewater used complies with international standards (pH, nitrates, polycyclic aromatic hydrocarbons, etc.) for scrubber drainage by the International Maritime Organization (IMO). Based on the above, it is evaluated that the Green Project will contribute to the prevention of air pollution.

With regard to the management of proceeds, SMBC, which is the agent of SMBC, has adopted a commitment-based approach to proceed management. SMBC draws out proceeds in response to our request, which allows for tracking and appropriate control. Sumitomo Mitsui Banking Corporation (SMBC), its agent, will also report the status of appropriation and impact indicators to all lenders at the end of each reporting period. Based on the above, JCR believes that a high degree of transparency has been secured in the procurement of proceeds through green loans.

As a result, JCR assigns “g1” to the "Evaluation of greenness (use of proceeds)" and “m1” to the "Evaluation on Management, Operation and Transparency", based on JCR Green Finance Evaluation Method. Consequently, JCR assigns "Green1" as an overall evaluation results to the loan. The evaluation results are described in detail in the next chapter. The loan is considered to meet the standards for items required by the Green Loan Principles and the Green Bond Guidelines issued by the Ministry of Environment of Japan.¹²

¹ Green Loan Principles composed by LMA (Loan Market Association), APLMA(Asia Pacific Loan Market Association)

² Ministry of the Environment Green Bond Guidelines 2017

Chapter 2: Current Status of the project on each evaluation factor and JCR's evaluations

Evaluation Phase 1: Greenness Evaluation

JCR assigns "g1", the highest grade, to "Evaluation phase 1: Greenness Evaluation".

Rationale: 100% use of proceeds of this borrowing is allocated to green projects, considering the factors described below.

(1) JCR's key consideration in this factor

In this section, we first assesses whether the proceeds will be allocated to green projects that have explicit improvement effects on environment. Next, JCR evaluates whether an internal department/division which is exclusively in charge of environment issues or a third party agency prove it sufficiently and have taken necessarily workaround or mitigation measures, in case of possibility on use of proceeds have negative impact on the environment. Finally, JCR confirms consistency with the Sustainable Development Goals (SDGs).

(2) Current status of evaluation targets and JCR evaluation

Overview of Use of Proceeds

The use of proceeds for this loan is the introduction of scrubbers, the device that removes sulfur oxides emitted as a result of the use of vessel fuels.

A SO_x scrubber is a cleaning dust collector that feeds dust-containing gas from the bottom, sprays water or other solvents from the top as a cleaning liquid, washes dust-containing gas through droplets, liquid membranes, air bubbles, etc. It adheres to particles or agglomerates particles, and separates and collects particles. The higher the amount of droplets, liquid membranes, and bubbles produced, the longer the time of contact with the gas, and the higher the performance of the gas-liquid separators, the higher the dust collection rate. There are four types of scrubbers: basin-type, pressurized-water-type, filling-tower-type, and rotating-type, each with its own characteristics. The sizes are small and can treat a considerably large amount of gas with a high dust collection rate, but wastewater treatment is required because of the use of cleaning water. The results of deliberations by the Sub-Committee on Prevention and Management to IMO Pollution held by the Ministry of Land, Infrastructure, Transport and Tourism indicate that scrubbers are not only able to use inexpensive high-sulfur heavy oil, but also one of the key measures for smooth responses to the 2020 SO_x regulations in order to disperse the demand for low-sulfur fuel oil and stabilize the supply-demand balance and prices of fuel oil.

Scrubbers have the following social and environmental significance:

- ✓ The MARPOL Convention (the 1978 Protocol to the International Convention for the Prevention of Pollution by Ships, 1973), which stipulates measures necessary for preventing environmental pollution caused by ship navigation, regulates SO_x emissions and greenhouse gas emissions, and gradually raises the regulated values. Of these, SO_x emissions are currently required to use less than 3.5% sulfur in the sea, but will be reduced to 0.5% from January 2020. The installation of scrubbers meets the requirements of these SO_x emission regulations.
- ✓ SO_x contained in exhaust gases and PM_{2.5}, which is generated secondary to SO_x in the atmosphere, cause risks of human health effects, such as respiratory and cardiovascular diseases, when incorporated into the

human body. In addition, SOX is converted to sulfuric acid by photochemical reactions in the atmosphere, causing acid rain. SOX regulations contribute to reducing the damage caused by respiratory diseases caused by air pollution and to reducing the environmental impact caused by acid rain.

a. On the environmental improvement effects of the project

i. 100% of the proceeds are used for the installation of highly environmentally friendly scrubbers, which are highly effective in improving the environment.

The proceeds will be used to the installation costs of scrubbers. The scrubber to be installed is an open-loop system that cleans exhaust gases and particulate matter (PM) containing sulfur oxides (SO_x) emitted from the engine using seawater and discharges the seawater into the sea, and a hybrid scrubber system that can be switched to a closed-loop system.

JCR confirmed from Nissen Kaiun filings that both of these scrubbers met the standards set out in Rule 14 of Annex IV of the MAPROL Convention for 2020 and beyond (sulfur content of 0.50% or less). It was also confirmed that the scrubbers will be implemented in accordance with Rule 14 of Annex VI of the MAPROL Convention.

ii. The use of proceeds falls under the category of "pollution prevention and management" and "clean transportation" businesses among the qualified green project categories in the Green Loan Principles.

The use of proceeds for this project is considered to fall under the category of "pollution prevention and control" and "clean transportation" businesses, which have the effect of reducing SO_x, among the qualified green project categories in the Green Loan Principles.

b. Negative impact on the environment

As a negative effect of this project, electricity consumption is expected to increase due to the operation of scrubbers, and CO₂ emissions are expected to increase accordingly. However, the energy consumption of the scrubber is slightly smaller than the energy consumption of the ship as a whole, and it can be handled by the existing generators of the ship. Therefore, it was confirmed from the estimation results that the contribution ratio of the scrubber to the total CO₂ emissions of the ship as a whole is small.

Seawater used for cleaning in open-loop scrubbers has a lower pH and higher turbidity and nitrate nitrogen than before water intake. If the discharge is concentrated, it may lead to ocean acidification, ocean water eutrophication, and accumulation of heavy metals. The scrubbers used in this study were confirmed to be in compliance with international standards (pH, nitrates, polycyclic aromatic hydrocarbons, etc.) for scrubber drainage by the International Maritime Organization (IMO). In addition, no residue such as sludge is generated due to the operation of the scrubber. According to the Ministry of Land, Infrastructure, International and Tourism's Subcommittee on Pollution Prevention and Response, scrubbers are one of the key measures for smooth compliance with the 2020 SOX regulations in order to contribute to the stabilization of the supply and demand of fuel oil by diversifying the demand for low-sulfur fuel oil, as well as the use of conventional high-sulfur heavy oil.³

³ Excerpted from the "Sixth Meeting (PPR6) of the Subcommittee on Pollution Prevention and Response (February 25, 2019)" of the Ministry of Land, Infrastructure, Transport and Tourism. According to the results of the committee's deliberations, some regions are now introducing wastewater bans from exhaust gas cleaning equipment without providing scientific evidence. In Japan, on the other hand, the environmental impact of effluent gas cleaning equipment by biological tests, component analysis, and simulation has been verified, and it has been concluded that the possibility of effluent impacts on the environment is extremely low in the short and

As a result of the above, the possibility that the establishment of scrubbers will have an impact on the environment of marine organisms and water quality is considered to be extremely low in the short and long term.

c. Consistency with SDGs goals and Targets

With reference to ICMA's SDGs mappings, JCR assessed that JCR would contribute to the following SDGs objectives and targets.



Objective 3: Good health and well-Being

Target 3.9. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination



Goal 9: Industry, innovation and infrastructure

Target 9.4. By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

Evaluation Phase 2: Evaluation on Management, Operation and Transparency

JCR assigns "m1", the highest rating on JCR evaluation Phase 2: Evaluation on Management and Operation and Transparency.

Rationale: These projects have allocated the funding and implemented the business as planner through a firmly equipped management and operation system and high transparency as described below.

1. Appropriateness and Transparency concerning selection standard and processes of the use of proceeds

(1) JCR's key consideration in this factor

This section confirms that the objectives to be achieved through the green loan, the criteria for selecting green projects, the appropriateness of the process, and the series of processes are appropriately disclosed to investors.

(2) Current status of evaluation targets and JCR evaluation

a. Goal

Nissen Kaiun has been actively responding to the installation of various facilities for energy conservation on ships, the installation of scrubbers to prevent marine pollution, and ballast water treatment equipment that meets the standards of the Ballast Water Management Convention. As a result, ballast water treatment equipment is being installed on almost all ships.

long term.

The quantity of SOX emitted by ships is defined by the MARPOL Convention, which was developed under the International Maritime Organization (IMO). In the past, it was stipulated that fuel with a sulfur content of 3.5% or less should be used in the general sea area. However, from January 2020, it has been decided that fuel with a sulfur content of 0.5% or less should be used. In response, Nissen Kaiun plans to install scrubbers with a sulfur concentration of 0.5% or less on almost all vessels in the future.

As a leading ship-owner in Japan, Nissen Kaiun has the objective of taking the lead in environmental initiatives, and JCR confirmed in the hearings that the establishment of scrubbers through this loan is consistent with our environmental objectives.

b. Selection standard

Nissen Kaiun uses scrubbers with the ability to comply with the MARPOL Convention as eligible criteria for the use of the loan proceeds. This case falls under the category of "pollution prevention and control" and "clean transportation" projects, and is selected in accordance with the selection criteria.

c. Processes

At Nissen Kaiun, Finance Section staff reviewed, assessed, and selected the projects to which the proceeds were to be allocated in order to ensure compliance with the eligibility criteria. In addition, the person in charge in the Finance Section presents the project to the Board of Directors and the President makes the final decision after comprehensive analysis and consider by the Board of Directors.

JCR evaluates that the selection criteria are conducted in a reasonable manner because the roles of each organization are clear and the involvement of management in the decision-making process is clear.

These selection criteria and selection and evaluation processes will be disclosed to lenders in this report.

2. Appropriateness and Transparency of management of the proceeds

(1) JCR's key consideration in this factor

The management method of the procured proceeds is usually assumed to be diverse by the borrower.

JCR assesses whether the proceeds firmly allocated to the green project, the project have internal systems to easily track the allocation of the proceeds and the money proceeded by the loan will be allocated to the green project at once. JCR also considers the evaluation of asset management of unallocated money.

It also attaches importance to evaluating the management and operation of the unallocated proceeds, as well as to confirming that the proceeds procured from the loan will be allocated to the green projects at an early stage.

(2) Current status of evaluation targets and JCR evaluation

- a. The use of proceeds for long-term borrowings subject to this evaluation will be fully allocated the cost of installing scrubbers. This loan is a commitment-type term loan that promises (commits) disbursement of proceeds at the request of the borrower at a preset credit line amount and term. The commitment period is set at one year, so only those who accept applications for withdrawal within one year are allowed to borrow proceeds into the borrower's account. As a result, no unappropriated proceeds are generated.
- b. The proceeds procured from the syndicated loan group are managed collectively by the agent banks. The borrower submits a scrubber installation bill to the agent at the time of withdrawal, and the agent bank causes the proceeds to be deposited into the borrower's account. The Borrower controls cash management through

the agent bank. Through these processes, the agent can check that the proceeds have been allocated to the scrubber purchase and installation costs.

- c. A dedicated management system for syndicated loans has been established at the agent bank, and the proceeding status will be managed by the system. The withdrawal records of proceeds are recorded on the system and stored by the agent line until the proceeds are fully repaid.

JCR evaluates that cash management is appropriate in light of the fact that this loan will be properly allocated to the Green Project, that the proceeds will be managed through the agent bank in an appropriate manner, and that there is no particular concern that the proceeds will not be appropriated.

3. Reporting

(1) JCR's key consideration in this factor

This section evaluates whether the disclosure system for investors before and after JCR borrowing is planned in a detailed and effective manner at the time of green loan borrowing.

(2) Current status of evaluation targets and JCR evaluation

a. Reporting on the proceeds allocation

Regarding the status of appropriation, the amount withdrawn by the commitment method will be disclosed in writing to the participating banks at the same time as the financial statements are submitted at each Panama SPC's fiscal year-end.

b. Reporting on environmental improvement effects

As for the effects of environmental improvement, the following reporting will be made available in writing to banks participating in the syndication at the same time as reporting the status of allocation.

- Reduction of pollutants per scrubber
- Number of scrubbers installed with this loan

4. Organization's environmental activities

(1) JCR's key consideration in this factor

This section evaluates whether the management of the borrower regards environmental issues as a high priority issue for management, and whether the Green Loan Policy and Process and the selection criteria for Green Projects are clearly positioned through the establishment of a department specializing in environmental issues or collaboration with external organizations.

(2) Current status of evaluation targets and JCR evaluation

Initiatives for Nissen Kaiun's Environmental Issues

The company considers environmental initiatives to be a priority management issue when conducting our shipping business. For example, it complies with various maritime regulations, actively strive to prevent marine pollution by installing ballast water treatment equipment on all vessels it owns, and strive to conserve energy in the equipment it uses. As part of the above-mentioned environmental initiatives, this project will mainly contribute to the elimination of sulfur (SOX). The company plans to install scrubbers on all vessels by 2020. In

addition, the Board of Directors reviewed the use of the proceeds for this loan and decided by the President to confirm that the Green Loan Borrowing Policy, selection criteria, and processes have been properly established. Although there are no departments specializing in the environmental field, JCR has confirmed that when introducing scrubbers, it is appropriate to introduce products that comply with various maritime regulations after obtaining technical information from external organizations. JCR believes that our environmental efforts are consistent with global trends toward improving the environment of the shipping industry.

■ Evaluation result

Long-term loans subject to evaluation are designated as "g1" in the "Evaluation of Greenness(use of proceeds)" and "m1" in the "Evaluation on Management, Operation and Transparency" based on JCR Green Finance Assessment Method, and therefore "Green1" is designated as the "Comprehensive Assessment". This loan is considered to meet the criteria for items in Green Loan Principle and MOE's Green Bond Guidelines.

[JCR Green Bond Evaluation Matrix]

		Management, Operation and Transparency				
		m1	m2	m3	m4	m5
Evaluation of Greenness	g1	Green 1	Green 2	Green 3	Green 4	Green 5
	g2	Green 2	Green 2	Green 3	Green 4	Green 5
	g3	Green 3	Green 3	Green 4	Green 5	Not qualified
	g4	Green 4	Green 4	Green 5	Not qualified	Not qualified
	g5	Green 5	Green 5	Not qualified	Not qualified	Not qualified

■ Subject

Borrower: SOUTHERN ROUTE MARITIME S.A. (NOTE 1)

[Assignment]

Target	Borrowing Amount	Date of Loan Agreement	Maturity date	Evaluation
Long-term loan	JPY 2.8 billion	June 26, 2019	(NOTE 2)	JCR Green Loan Evaluation: Green1 Evaluation of Greenness :g1 Management, Operation and Transparency :m1

(NOTE 1) Ship SPC of NISSEN KAIUN CO., LTD.

(NOTE 2) Commitment period: 1 year + Maximum 9 years after individual loan (repayment period differs depending on the age of vessels equipped with scrubbers)

Analysts in charge of this evaluation: Atsuko Kajiwara and Akihiro Kondo

Important explanation of the Green Loan Evaluation

1. Assumptions, Significance, and Limitations of JCR Green Loan Evaluation

JCR Green Loan Evaluation, which is granted and provided by the Japan Credit Rating Agency (JCR), is a comprehensive expression of JCR's current opinion on the extent to which the funds procured green loans, which are subject to evaluation, are allocated to green projects defined by JCR and the extent to which the management, operation, and transparency of the use of green loans are ensured. JCR Green Loan Evaluation does not fully indicate the extent to which the funds procured from such green loans are allocated and the management, operation, and transparency of the use of the funds are ensured.

JCR Green Loan Evaluation evaluates the appropriation of funds at the time of the Green Loan program or at the time of the loan execution. It does not guarantee the appropriation of funds in the future. In addition, JCR Green Loan Evaluation does not prove the environmental effects of green loans and is not responsible for their environmental effects. JCR confirms that the effects of the funds procured green loans on the environment are measured quantitatively and qualitatively by the borrower or by a third party requested by the borrower, but in principle it does not directly measure the effects.

2. Methods used in the conduct of this evaluation

The methods used in this evaluation are listed on JCR website (Sustainable Finance and ESG in <https://www.jcr.co.jp/en>) as JCR Green Loan Evaluation Method.

3. Relationship with Acts Related to Credit Rating Business

JCR Green Loan Evaluation is determined and provided by JCR as a related business, which is different from the activities related to the credit rating business.

4. Relationship with Credit Ratings

The Assessment differs from the Credit Rating and does not promise to provide or make available for inspection a predetermined Credit Rating.

5. Third-Party Evaluation of JCR's Green Loan

There is no conflict of interest related to capital or human resources relationships between the subject of this evaluation and JCR.

■Disclaimers

The information contained in this document has been obtained by JCR from the Borrower and from accurate and reliable sources. However, that such information may be erroneous due to human, mechanical or other reasons. Accordingly, JCR makes no representation or warranty, express or implied, as to the accuracy, results, accuracy, timeliness, completeness, marketability, or fitness for a particular purpose of such information, and JCR assumes no responsibility for any error, omission, or result of using such information. In no event shall JCR be liable for any special, indirect, incidental or consequential damages of any kind, including opportunity loss, monetary loss, which may arise from any use of such information, whether contractual, tort, negligence or other cause of liability, and whether or not such damages are foreseeable or unforeseeable. JCR Green Loan Evaluation does not express any opinion on the various risks (credit risk, price fluctuation risk, market liquidity risk, price fluctuation risk, etc.) associated with the green loan subject to the evaluation. JCR Green Loan Evaluation is a comprehensive statement of opinion at the present time of JCR and is not a statement of fact and does not make any recommendations regarding risk judgment or the decision to purchase, sell or hold individual bonds, commercial paper, etc. JCR Green Loan Evaluations may be changed, suspended, or withdrawn due to changes in information, lack of information, or other reasons. All rights to this document, including data from JCR Green Loan Evaluation, are held by JCR. Reproduction, adaptation, modification or alteration of this document, in whole or in part, including data from the Green Loan Evaluation, without the permission of JCR is prohibited.

■Glossary

JCR Green Loan Evaluation: JCR Green Loan Evaluation evaluates the extent to which the funds procured from the Green Loan are allocated to the Green Project as defined by JCR, and the extent to which the management, operation, and transparency of the Green Loan are ensured. Evaluations are graded on a scale of 5, beginning with the top, using the Green1, Green2, Green3, Green4, and Green5 symbols.

■Status of registration as an external assessor of green finance

- Registration of Green Bond Issuance Supporters by the Ministry of the Environment
- ICMA (Registered as an observer of the International Capital Markets Association)

■Status of registration as a credit rating agency, etc.

- Credit Rating Agency: the Commissioner of the Financial Services Agency (Rating) No.1
- EU Certified Credit Rating Agency
- NRSRO: JCR has registered with the following four of the five credit rating classes of the Securities and Exchange Commission's NRSRO(Nationally Recognized Statistical Rating Organization. (1)Financial institutions, broker dealers, (2) insurance companies, (3) general business corporations, and (4) government and local governments. If the disclosure is subject to Section 17g-7(a) of the Securities and Exchange Commission Rule, such disclosure is attached to the news releases posted on JCR website (<https://www.jcr.co.jp/en>).

■ For further information, contact

Information Service Dept. TEL: :03-3544-7013 FAX: :03-3544-7026

Japan Credit Rating Agency, Ltd.

Jiji Press Building, 5-15-8 Ginza, Chuo-ku, Tokyo 104-0061, Japan
Tel. +81 3 3544 7013, Fax. +81 3 3544 7026

Copyright © Japan Credit Rating Agency, Ltd. All rights reserved.