# MOODY'S RATINGS

# ASSESSMENT

30 May 2025

Send Your Feedback

#### Contacts

Lena Gillich Sustainable Finance Analyst lena.gillich@moodys.com

Alice Presotto Senior Sustainable Finance Associate alice.presotto@moodys.com

# **Munters Group AB**

Second Party Opinion – Green Bond Framework Assigned SQS2 Sustainability Quality Score

# **Summary**

We have assigned an SQS2 Sustainability Quality Score (Very Good) to Munters Group AB's (Munters) green bond framework dated May 2025. Munters has established its useof-proceeds framework to finance two eligible green categories, covering climate change mitigation and circular economy. The framework is aligned with the four components of the International Capital Market Association's (ICMA) Green Bond Principles (GBP) 2021 (with June 2022 Appendix 1). The framework demonstrates a significant contribution to sustainability.

Sustainabi	lity quality sco	ore	•		<u> </u>
<b>SQS5</b> Weak	SQS4 Intermediate	<b>SQS3</b> Good	SQS2 Very good	<b>SQS1</b> Excellent	SQS2
<b>Alignme</b> USE OF PF	ent with princi	ples	Contr	ibution to su	stainability
Overall alignme	ent 🗕		Final contri	bution to sustaina	ability
	Partially Aligned aligned	Best practices	Poor	Limited Moderate	Significant High
FACTORS		ALIGNMENT			
Use of proceed	s		Preliminary	contribution to s	ustainability
Evaluation and	selection	<b>v</b>	Relevance a	nd magnitude	<b>v</b>
Management of	f proceeds		Additional considerations No adjustme		
Reporting			Additional d	onsiderations	No adjustment
				POINT-IN-	-TIME ASSESSMENT

#### Scope

We have provided a Second Party Opinion (SPO) on the sustainability credentials of Munters' green bond framework, including the framework's alignment with the ICMA's GBP 2021 (with June 2022 Appendix 1). Under its framework, the issuer plans to issue use-of-proceeds green bonds to finance projects in two green categories, which include climate change mitigation and circular economy, as outlined in Appendix 3 of this report.

Our assessment is based on the last updated version of the framework received on 8 May 2025, and our opinion reflects our point-intime assessment<sup>1</sup> of the details contained in this version of the framework, as well as other public and non-public information provided by the company.

We produced this SPO based on our Assessment Framework: Second Party Opinions on Sustainable Debt, published in March 2025.

## **Issuer profile**

Munters, established in 1955 and headquartered in Stockholm, Sweden, is operating in the climate control solutions industry. Munters offers industrial and commercial dehumidification and climate control products to be applied in a wide range of industries, such as automotive, construction and infrastructure, food and agriculture, among others.

With around 5,400 employees Munters carries out manufacturing and sales in more than 40 countries. In 2024, Munters Group AB reported annual net sales exceeding SEK 15 billion and is publicly listed on Nasdaq Stockholm. The company's shares are held by a diverse group of shareholders, primarily institutional, with individual shareholders representing 5.34%. FAM AB, a Swedish asset management firm, is the largest shareholder, owning 28.03% of the shares.

Munters, operating within the manufacturing sector, faces moderate environmental risks, particularly concerning waste, pollution, and water management, potentially incurring cleanup costs. To address these risks, Munters has advanced its environmental sustainability initiatives by optimizing resource usage, implementing circular design principles, and conducting life-cycle analyses to evaluate the carbon footprint of its products. On the social front, the manufacturing sector generally encounters moderate social risks. To tackle these, Munters is dedicated to maintaining local employment policies and practices that ensure secure and fair working conditions for its global workforce.

# Strengths

- » Eligible projects target key sustainability challenges for the manufacturing sector by increasing energy efficiency, decreasing carbon emissions and promoting circular design principles.
- » Investing in the repair, refurbishment, or upgrading of climate control products and clean technologies tackles globally critical issues of value retention and recovery.
- » A clear, structured and detailed process for project evaluation and selection.

# Challenges

- » The ultimate impact of several projects on sustainability objectives is contingent on how end-users implement and utilize the solutions, beyond the issuer's control.
- » Some impact indicators have room for further clarification and refinement.
- » There is no independent verification of the impact reporting on environmental benefits associated with the financed projects.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

# Alignment with principles

Munters' green bond framework is aligned with the four core components of the ICMA's GBP 2021 (including the June 2022 Appendix 1). For a summary alignment with principles scorecard, please see Appendix 1.



# Clarity of the eligible categories – ALIGNED

Munters has clearly communicated the nature of expenditures for the two eligible categories, along with the exclusion criteria for fossil fuel-related activities. The framework outlines the eligibility criteria for project categories in broad terms, with most proceeds earmarked for EU Taxonomy-aligned or eligible economic activities. However, it does not comprehensively detail the specific technologies financed or their potential end-use applications. The issuer intends to implement the framework across approximately 40 countries where it operates.

## Clarity of the environmental objectives - BEST PRACTICES

The company has clearly outlined climate change mitigation and transition to a circular economy as environmental objectives associated with its eligible categories. They are relevant for the eligible projects and coherent with recognized international standards, including the United Nations' (UN) Sustainable Development Goals (SDGs) and the EU Taxonomy.

#### Clarity of expected benefits - ALIGNED

Munters has clearly identified relevant environmental benefits for the two eligible categories. The benefits of the climate change mitigation category are measurable; while the circular economy category primarily includes descriptions of selected projects focusing on product life cycles. Although the company has not committed to always reporting environmental benefits using quantitative indicators, it has provided examples of potential metrics it may employ. Additionally, the company plans to consistently use case studies, particularly for the circular economy-related category, to illustrate the environmental benefits of eligible investments.

The issuer has chosen not to apply a look-back period for refinancing capital expenditures, but will limit it to three years for operational expenditures. Unlike standard market practices, which typically involve providing these estimates prior to a bond issuance, the issuer will disclose the refinancing share to investors only after each bond issuance.

# Process for project evaluation and selection



# Transparency and clarity of the process for defining and monitoring eligible projects – BEST PRACTICES

The issuer's decision-making process for determining and evaluating the eligibility of projects is well structured and clearly outlined in its publicly available framework. Munters' Green Bond Committee, consisting of the CFO, VP Group Strategy and Business Control, Head of Treasury, and VP of Sustainability, oversees the process. The committee is responsible not only for the final approval of eligible projects but also for ongoing monitoring of existing projects. It will convene at least annually to ensure the so-called Green Debt Register of eligible assets is up to date. Should the committee determine that certain assets and expenditures do not meet the eligibility criteria, they will be reallocated in accordance with the framework's criteria.

The processes for mitigating environmental and social (E&S) risks are based on the Group's overarching corporate E&S procedures, which are publicly accessible as detailed in the issuer's sustainability reporting.



#### Allocation and tracking of proceeds – ALIGNED

Munters has clearly defined the process for allocating and tracking proceeds within its publicly available framework, incorporating all key recommended elements. The proceeds will be held in the general treasury and tracked by means of the Green Debt Register, with annual adjustments to align with allocations to eligible projects during that year. The company has committed to fully allocate the proceeds within 36 months from the date of issuance, surpassing the market best practice of 24 months.

Any unallocated proceeds will be invested in cash or cash equivalents and managed in line with the company's liquidity management policies.

#### Reporting

		▼	
Not aligned	Partially aligned	Aligned	Best practices

## Reporting transparency – ALIGNED

The issuer has committed to providing annual allocation and impact reports until full allocation, and in the event of material developments, while the instruments remain outstanding. These reports will be publicly available on the Munters' website and will cover comprehensive details on the allocation of proceeds and the expected environmental benefits of the eligible categories.

The indicators identified for the eligible projects have some room for further clarification and refinement. For instance, in the circular economy category, benefits will be demonstrated through case studies that highlight life cycle gains and other metric examples. While the ICMA recommends quantitative performance measures where feasible, we acknowledge the challenges of establishing universal metrics that can span multiple types of product and services categories. The impact report will include the calculation methodologies and assumptions used for these impact indicators.

An independent external audit will be conducted on the tracking and allocation of proceeds; however, it will not cover the environmental benefits and externalities related to the financed projects, which deviates from established market best practices.

# **Contribution to sustainability**

The framework demonstrates a significant overall contribution to sustainability. This reflects a preliminary contribution to sustainability score of significant, based on the relevance and magnitude of the eligible project categories, and we have not made an adjustment to the preliminary score based on additional contribution to sustainability considerations.



#### Preliminary contribution to sustainability

The preliminary contribution to sustainability is significant, based on the relevance and magnitude of the eligible project categories. The issuer has provided an estimated distribution of proceeds across the two eligible categories, with the vast majority of funding allocated to climate change mitigation projects. A detailed assessment by eligible category has been provided below.

#### Climate change mitigation



The relevance of this category is high, reflecting the critical importance of reducing GHG emissions through enhanced energy efficiency and environmental performance. Increasing energy efficiency is vital for global decarbonization, aligning with the International Energy Agency's target of limiting warming to 1.5°C by 2050. The need to substantially reduce emissions from buildings, which account for 30% of global energy consumption, underscores the relevance of Munters' efforts. In the geographic context where Munters operates, including countries heavily reliant on coal and oil like India, China, and the US, their advanced climate control solutions play an essential role in transitioning to cleaner energy practices. As a player in managing humidity, temperature, and air quality, Munters addresses sustainability challenges by enhancing energy efficiency in its sector.

The category holds significant magnitude to reduce greenhouse gas (GHG) emissions and enhance energy efficiency, supported by a robust set of criteria for various technologies. Within the sub-category 3.6 for the manufacture of low carbon technologies, which receives a large share of the funding, Munters invests in dehumidification for industrial applications and cooling systems for data centers, achieving notable reductions in GHG emissions, and water consumption, with their performance benchmarked internally against alternative technologies in the market. Furthermore, Munters finances controllers classified under EU Taxonomy criteria 3.5 - Manufacture of energy efficiency equipment for buildings. While the technology itself has no negative environmental externalities, these controllers are predominantly used in the livestock industry, potentially amplifying their impact in sectors with inherent negative externalities. Although Munters does not control the end-use of these products within Foodtech, the extent of the potential improvements they might provide remains unclear. Munters' data-driven solutions, following the EU Taxonomy criteria 8.2 for reducing GHG emissions, are designed to optimize operations and lower emissions. Nonetheless, specifics regarding their implementation, ultimate applications, and overall impact are not fully disclosed. In addition, Munters demonstrates its commitment to reducing carbon footprints through investments in renewable technologies, such as solar photovoltaic systems at their manufacturing sites and the electrification of fossil-based processes within their facilities. Yet, uncertainties remain about the complete renewable sourcing of electricity due to limited transparency concerning renewable energy certificates.

#### Circular economy adapted products, production technologies and processes



The high relevance of this category underscores the critical role of financed projects in tackling sustainability challenges by extending product lifespans and improving resource efficiency. Globally, adopting circular economy practices is crucial for preserving the utility and value of resources such as energy, water, and land, as emphasized in the UN Environment Programme's "Global Waste Management Outlook 2024." There is a worldwide pressure to curtail resource-intensive consumption and waste production. For Munters, operating in a sector that generates substantial waste, applying circular design principles and conducting lifecycle analyses are vital strategies to reduce waste and boost recycling efforts.

The magnitude of this category is significant, reflecting its potential to extend product lifespans and enhance resource efficiency through adherence to EU Taxonomy criteria 5.1 for repair, refurbishment, and remanufacturing. This category focuses on the enduring

effects of circular economy practices, with investments aimed at prolonging products' life via repair, scheduled maintenance and service contracts. Munters' offerings include the replacement of components to maintain efficiency and optimal performance at different points of unit's life-cycle - from air filters every few months to seals and rotors up to ten years - delivering substantial benefits over both short and long terms. In addition, the issuer informs clients on proper disposal and recycling of replaced components, demonstrating its commitment to the "reduce, reuse, recycle" hierarchy and implementing robust risk mitigation measures to ensure well-managed end-of-life impacts and environmental externalities. Nevertheless, the descriptive nature of EU Taxonomy criteria 5.1, combined with the absence of quantified benefits, is perceived as less stringent and transparent.

#### Additional contribution to sustainability considerations

We have not made an adjustment to the preliminary contribution to sustainability score based on additional considerations.

We consider that Munters has allocated appropriate resources to identify and manage E&S risks. Munters requires each project to comply with its E&S requirements, emphasizing its commitment to sustainability through initiatives focused on climate change mitigation and the circular economy. Specific procedures, instructions, and guidelines are detailed in policies like the Munters' Code of Conduct, Sustainability Policy, Health and Safety Policy, and other internal documents. Further, most Munters sites hold ISO 14001 certification, and the company aims to achieve triple certification in ISO 9001, 14001, and 45001 for all production sites by 2026, starting from a 2020 baseline.

Regarding Munters' global sustainability strategy, the categories financed under the company's framework are coherent with its commitment to sustainability and circular design principles. By focusing on climate change mitigation and circular economy initiatives, Munters supports global efforts to reduce the environmental footprint and enhance resource efficiency across the 40 countries in which it operates.

	score	score	Factor score
Nature of expenditure	А		Aligned
Definition of content, eligibility and exclusion criteria for nearly all categories	А	Aligned	
ries Location	А	Aligned	
BP: Definition of content, eligibility and exclusion criteria for all categories	No		
Relevance of objectives to project categories for nearly all categories	А		
Coherence of project category objectives with standards for nearly all categories	А	Best practices	
BP: Objectives are defined, relevant and coherent for all categories	Yes		
Identification and relevance of expected benefits for nearly all categories	А		
Measurability of expected benefits for nearly all categories	А		
BP: Relevant benefits are identified for all categories	Yes		
BP: Benefits are measurable for all categories	Yes	Aligned	
BP: Disclosure of refinancing prior to issuance and in post-allocation reporting	No		
BP: Commitment to communicate refinancing look-back period prior to issuance	Yes	,	
and Clarity of the process	А		Best practices
Disclosure of the process	А	Best	
Transparency of the environmental and social risk mitigation process	А	practices	
gible BP: Monitoring of continued project compliance	Yes		
Tracking of proceeds	А	Aligned	Aligned
Periodic adjustment of proceeds to match allocations	А		
Disclosure of the intended types of temporary placements of unallocated proceeds	А		
BP: Disclosure of the proceeds management process	Yes		
BP: Allocation period is 24 months or less	No		
Reporting frequency	А	Aligned	Aligned
Reporting duration	А		
Report disclosure	А		
Reporting exhaustivity	А		
BP: Allocation reporting at least until full allocation of proceeds, and impact reporting until full bond maturity or loan payback	Yes		
BP: Clarity and relevance of the indicators on the sustainability benefits	Yes		
BP: Disclosure of reporting methodology and calculation assumptions	Yes		
BP: Independent external auditor, or other third party, to verify the tracking and allocation of funds	Yes		
BP: Independent impact assessment on environmental and social benefits	No		
	<ul> <li>BP: Disclosure of reporting methodology and calculation assumptions</li> <li>BP: Independent external auditor, or other third party, to verify the tracking and allocation of funds</li> <li>BP: Independent impact assessment on environmental and social benefits</li> </ul>	BP: Disclosure of reporting methodology and calculation assumptions       Yes         BP: Independent external auditor, or other third party, to verify the tracking and allocation of funds       Yes	BP: Disclosure of reporting methodology and calculation assumptions       Yes         BP: Independent external auditor, or other third party, to verify the tracking and allocation of funds       Yes         BP: Independent impact assessment on environmental and social benefits       No

# Appendix 1 - Alignment with principles scorecard for Munters' green bond framework

Legend: BP - Best practice, A - Aligned, PA - Partially aligned, NA - Not aligned

# Appendix 2 - Mapping eligible categories to the United Nations' Sustainable Development Goals

The two eligible categories included in Munters' green bond framework are likely to contribute to three of the United Nations' Sustainable Development Goals (SDGs), namely:

UN SDG 17 Goals		SDG Targets
GOAL 7: Affordable and Clean Energy	Climate change mitigation	7.3: Double the global rate of improvement in energy efficiency
GOAL 12: Responsible Consumption and Production	Circular economy adapted products, production technologies and processes	12.5: Substantially reduce waste generation through prevention, reduction, recycling and reuse
GOAL 13: Climate Action	Climate change mitigation	13.3: Improve awareness and human and institutional capacity on climate change mitigation, adaptation and impact reduction
	Circular economy adapted products, production technologies and processes	

The United Nations' Sustainable Development Goals (SDGs) mapping in this SPO considers the eligible project categories and associated sustainability objectives/benefits documented in the issuer's green bond framework, as well as resources and guidelines from public institutions, such as the ICMA SDG Mapping Guidance and the UN SDG targets and indicators.

Eligible Categories	Description	Sustainability Objectives	Impact Reporting Metrics
Climate change nitigation	<ol> <li>Capital and operating expenditures related to activities fully aligned with the Technical Screening Criteria defined in the Climate Delegated Act of EU Taxonomy, such as:</li> <li>3.5 Manufacture of energy efficiency equipment for buildings</li> <li>3.6 Manufacture of low carbon technologies</li> <li>8.2 Data-driven solutions for GHG emissions reductions</li> </ol>	Climate change mitigation	<ul> <li>EU Taxonomy reporting</li> <li>Environmental impacts through solutions and products provided, such as estimated CO<sub>2</sub> emission reductions or energy efficiency improvements</li> </ul>
	<ul> <li>2. Other capital and operating expenditures related to eligible activities for the Technical Screening Criteria defined in the Climate Delegated Act of the EU Taxonomy, which fulfil substantial contribution criteria linked to:</li> <li>3.5 Manufacture of energy efficiency equipment for buildings,</li> <li>3.6 Manufacture of low carbon technologies,</li> <li>8.2 Data-driven solutions for GHG emissions reductions</li> </ul>		
	<ul> <li>3. Assets, capital and operating expenditures in relation to:</li> <li>Installation of renewable energy technologies in the form of solar photovoltaic systems for the purpose of self-generated electricity</li> <li>Electrification of fossil-driven processes within Munters' operations with the requirement of 100% renewable electricity sourcing</li> </ul>		
Circular economy adapted products, production technologies and processes	<ol> <li>Capital and operating expenditure related to activities fully aligned with the Technical Screening Criteria defined in the Climate Delegated Act of EU Taxonomy, such as:</li> <li>5.1 Repair, refurbishment and remanufacturing</li> </ol>	Circular economy	<ul> <li>EU Taxonomy reporting</li> <li>Descriptions of selected projects in which life cycle of customers products have been extended</li> </ul>
	<ul> <li>2. Capital and operating expenditures related to eligible activities for the Technical Screening Criteria defined in the Climate Delegated Act of the EU Taxonomy, which fulfil substantial contribution criteria linked to:</li> <li>5.1 Repair, refurbishment and remanufacturing</li> </ul>		• Descriptions of gained life cycle benefits

# Appendix 3 - Summary of eligible categories in Munters' green bond framework

# Endnotes

<u>1</u> Point-in-time assessment is applicable only on date of assignment or update.

Moody's assigns SPOs in alignment with the main tenets of the ICMA Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews and the LSTA/ LMA/APLMA Guidance for Green, Social and Sustainability-Linked Loans External Reviews, as applicable; Moody's practices may however diverge in some respects from the practices recommended in those documents. Moody's approach to assigning SPOs is described in its Assessment Framework, and is subject to the ethical and professional principles set forth in the Moody's Investors Service Code of Professional Conduct.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulators. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

© 2025 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES. CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS, CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK. INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials. To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information chained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and all MCO entities that issue ratings under the "Moody's Ratings" brand name ("Moody's Ratings"), also maintain policies and procedures to address the independence of Moody's Ratings' credit ratings nor credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at <u>ir.moodys.com</u> under the heading "Investor Relations — Corporate Governance — Charter and Governance Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions and Net Zero Assessments (as defined in Moody's Ratings Rating Symbols and Definitions): Please note that neither a Second Party Opinion ("SPO") nor a Net Zero Assessment ("NZA") is a "credit rating". The issuance of SPOs and NZAs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs and NZAs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

REPORT NUMBER 1445091