

**ASSESSMENT**

26 March 2025



**Contacts**

Tom Collet  
Sustainable Finance Analyst  
tom.collet@moodys.com

Camille Bienayme  
Sustainable Finance Associate  
camille.bienayme@moodys.com

Adriana Cruz Felix  
SVP-Sustainable Finance  
adriana.cruzfelix@moodys.com

**CMB.TECH**

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

**Summary**

We have assigned an SQS2 Sustainability Quality Score (very good) to CMB.TECH's green financing framework dated February 2025. CMB.TECH has established its use-of-proceeds framework to finance projects across two eligible green categories: clean transportation and renewable energy. The framework is aligned with the four core components of the International Capital Market Association's (ICMA) Green Bond Principles (GBP) 2021 (including the June 2022 Appendix 1), and the Green Loan Principles (GLP) 2023 of the Asia Pacific Loan Market Association, the Loan Market Association, and the Loan Syndications and Trading Association (LMA/APLMA/LSTA). CMB.TECH has also incorporated identified best practices for all the four components. The framework demonstrates a significant contribution to sustainability.

**Sustainability quality score**

SQS5  
Weak

SQS4  
Intermediate

SQS3  
Good

▼  
SQS2  
Very good

SQS1  
Excellent

SQS2

---

**Alignment with principles**  
USE OF PROCEEDS

**Overall alignment**

Not aligned

Partially aligned

Aligned

▼  
Best practices

FACTORS	ALIGNMENT
Use of proceeds	██████████▼
Evaluation and selection	██████████▼
Management of proceeds	██████████▼
Reporting	██████████▼

**Contribution to sustainability**

**Final contribution to sustainability**

Poor

Limited

Moderate

▼  
Significant

High

**Preliminary contribution to sustainability**  
Relevance and magnitude

Additional considerations

**No adjustment**

POINT-IN-TIME ASSESSMENT

## Scope

We have provided a Second Party Opinion (SPO) on the sustainability credentials of CMB.TECH's green financing framework, including the framework's alignment with the ICMA's GBP 2021 (including the June 2022 Appendix 1) and the LMA/APLMA/LSTA's GLP 2023. Under its framework, CMB.TECH plans to issue use-of-proceeds instruments with the aim of financing projects in two categories, namely clean transportation and renewable energy, as outlined in Appendix 3 of this report.

Our assessment is based on the last updated version of the framework received on 21 March 2025, and dated February 2025, and our opinion reflects our point-in-time 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

CMB.TECH is a listed shipping company on both EURONEXT and NYSE, and a leading provider of hydrogen and low-carbon technology solutions for the maritime industry. The company focuses on the development and deployment of innovative hydrogen applications and sustainable energy solutions across multiple sectors, including maritime, industrial and transportation. CMB.TECH operates in several key markets, offering a range of services such as the development of hydrogen-powered vessels and hydrogen refueling infrastructure. CMB.TECH operates in Europe, North America, Africa and Asia.

CMB.TECH's commitment to sustainability includes reducing greenhouse gas (GHG) emissions, promoting the circular economy and supporting hydrogen development in the wider maritime industry. The company actively engages in initiatives that drive ecological transformation and sustainable development, ensuring a positive impact on the environment and society. The company's strategic vision for 2024-27 focuses on scaling up hydrogen solutions in the wider maritime industry, fostering partnerships and contributing to global sustainability efforts by providing affordable and replicable low-carbon technologies.

## Strengths

- » The issuer invests in the development and deployment of the most relevant technologies to decarbonize the shipping sector.
- » There is an independent verification of the impact reporting on the environmental and social benefits, or the externalities associated with the financed projects.

## Challenges

- » The environmental benefits of the deployment of dual-fuel engines for vessels are limited because of the risk of continuous GHG emissions.

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.moody.com> for the most updated credit rating action information and rating history.

## Alignment with principles

CMB.TECH's green financing framework is aligned with the four core components of the LMA/APLMA/LSTA's GLP 2023. For a summary alignment with principles scorecard, please see Appendix 1.

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Green Bond Principles (GBP)       | <input checked="" type="checkbox"/> Green Loan Principles (GLP)       |
| <input type="checkbox"/> Social Bond Principles (SBP)                 | <input type="checkbox"/> Social Loan Principles (SLP)                 |
| <input type="checkbox"/> Sustainability-Linked Bond Principles (SLBP) | <input type="checkbox"/> Sustainability Linked Loan Principles (SLLP) |

## Use of proceeds



### Clarity of the eligible categories – BEST PRACTICES

CMB.TECH has clearly communicated the nature of the expenditures, and has set eligibility and exclusion criteria for the eligible categories. The benefits have been clearly identified. The company disclosed that the eligible projects will be located in Europe, the UK, Japan, Namibia, China, Vietnam, South Korea and the Netherlands.

Under CMB.TECH's framework, a limited portion of proceeds is allocated toward equity investment in the form of acquisition of shares in joint ventures owning assets aligned with the eligibility criteria set in the framework. Such joint venture typically owns one vessel.

We consider this a nonstandard use of proceeds. However, because the investments are limited to joint ventures owning few assets, the standard challenges in terms of asset-level adherence to sustainability objectives, allocation and traceability; impact reporting; and the increased risk of double counting, do not apply. In addition, the expenditures related to equity will account for less than 5% of the total net proceeds issued under its framework. We consider the structure aligned with the spirit of the ICMA's principles and current market practices.

### Clarity of the environmental or social objectives – BEST PRACTICES

CMB.TECH has clearly outlined relevant and coherent environmental and social objectives for all the eligible categories. The company has identified relevant United Nations (UN) Sustainable Development Goals (SDGs), such as Goal 7 "Affordable and Green Energy", Goal 8 "Decent Work and Economic Growth", Goal 9 "Industry, Innovation and Infrastructure" and Goal 11 "Sustainable Cities and Communities", and has mapped them to the project categories. The objectives are coherent with international standards.

### Clarity of the expected benefits – BEST PRACTICES

Clear and relevant expected environmental and social benefits have been identified for all the eligible categories. The expected benefits are measurable for all the project categories, and CMB.TECH has committed to quantifying these benefits in its annual reporting that will be publicly available. The maximum look-back period is three years for capital spending and one year maximum for operating expense. CMB.TECH will communicate the estimated share of refinancing before the issuance, and transparently report the actual share of refinancing in the annual reporting.

## Process for project evaluation and selection



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

The company has established a clear and structured process for the evaluation and selection of eligible projects, including detailed decision-making criteria, and clearly defined roles and responsibilities formalized in its framework. The company has established a sustainability committee, to which CMB.TECH's CFO presents eligible projects. The committee is in charge of the evaluation, selection

and monitoring of the projects. It also aims at identifying any social or environmental risks, and can take action in case projects no longer comply with the eligibility criteria and in case of controversies, considered as a best practice.

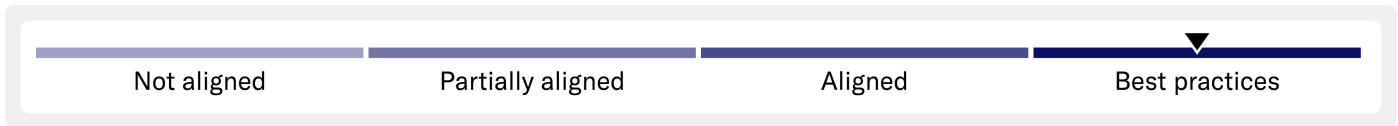
**Management of proceeds**



**Allocation and tracking of proceeds – BEST PRACTICES**

CMB.TECH has clearly defined the process for the management, allocation and tracking of proceeds in the framework. Net proceeds will be placed in the company's general treasury and tracked by the treasury department. The proceeds will be adjusted at least annually to match the allocation. The company commits to allocate proceeds within 24 months. Any unallocated proceeds will be invested in cash or other marketable instruments.

**Reporting**

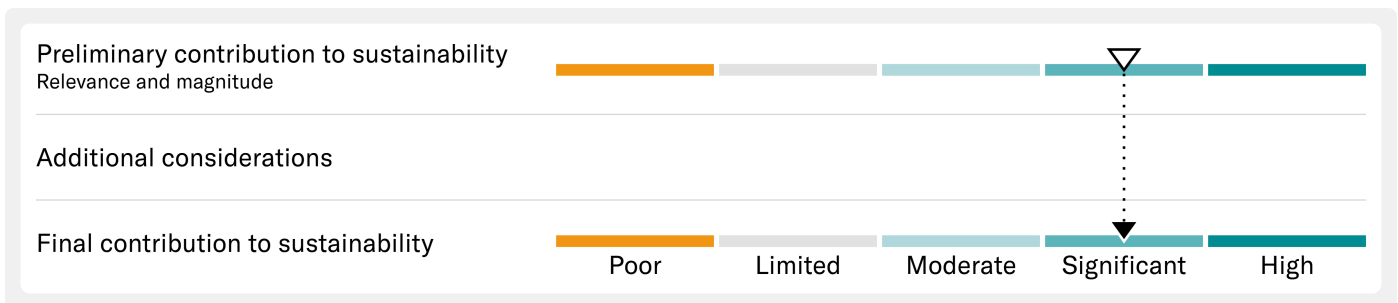


**Reporting transparency – BEST PRACTICES**

CMB.TECH will report annually on the allocation of the proceeds and the impact reporting, until the full maturity of the instruments. The reporting will be exhaustive, and it will include relevant indicators for both allocation and the expected benefits. Relevant indicators are all clearly defined, and the methodology used, along with assumptions, will be publicly available. Moreover, there will be an independent external auditor to track the proceeds and an independent assessment of the reported environmental benefits.

**Contribution to sustainability**

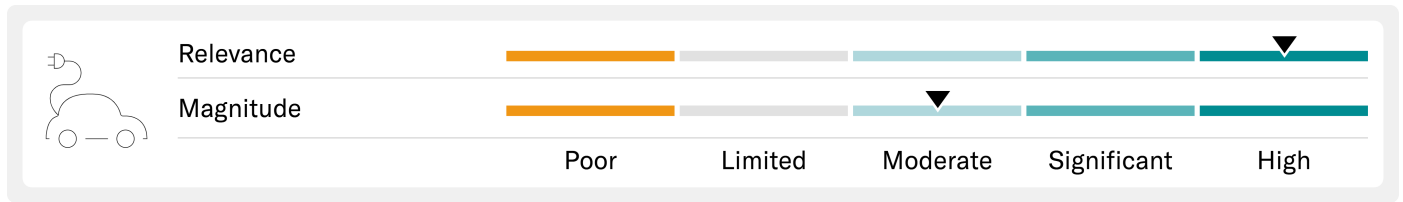
The framework demonstrates a significant overall contribution to sustainability. This reflects a preliminary contribution to the sustainability score of significant, based on the relevance and magnitude of the eligible project categories, and we have not made an adjustment to the preliminary score based 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 shared a list of future projects and corresponding amounts to be invested. We have weighted the eligible categories accordingly, making the clean transportation category concentrating the majority of the proceeds. A detailed assessment by eligible category has been provided below.

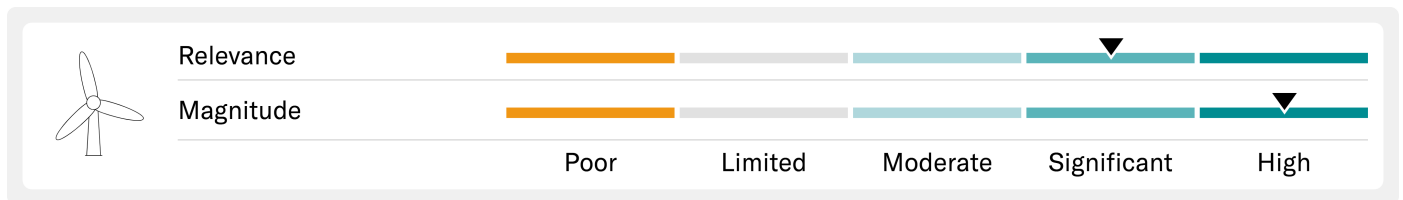
Clean transportation



Financing energy-efficient vessel technologies is highly relevant for decarbonizing the shipping sector. The sector is a hard-to-abate sector, where GHG emissions accounted for 2% of global emissions in 2022<sup>2</sup> and these are likely to account for up to 10% of global emissions in 2050<sup>3</sup>. The decarbonization of the sector relies on the deployment of low-carbon fuels, which are estimated to account for 85% of the total fuels consumption by 2050. Currently, low-carbon fuels account for only less than 1% of the total fuel consumption in the shipping sector<sup>4</sup>. By investing in the development of energy-efficient dual-fuel vessels, which allows for the uptake of lower-emission fuels, CMB.TECH supports the decarbonization of the sector.

In terms of magnitude, CMB.TECH low-carbon transportation projects are considered to have an overall moderate impact in the decarbonization of the shipping sector. The development of dual-fuel — hydrogen-diesel or ammonia-diesel — engines is one of the best available solutions to decarbonize the shipping sector. The issuer finances projects that are either in line with the EU Taxonomy requirements of a 20% reduction goal in Energy Efficient Design Index (EEDI) compared with the EEDI requirements applicable in 2022, or with a minimum 40% energy efficiency gain compared with previous vessels, which is aligned with the best available standards. The technology developed by CMB.TECH, either on its own or in collaboration with its partners, could result in a potential total GHG emissions reduction of 85% for dual-fuel hydrogen and 95% for dual-fuel ammonia vessels. The issuer states that the use of vessels running on low-carbon fuel will be in line with the IEA 2°C scenario, achieving 8.7 gCO<sub>2</sub> t-km<sup>5</sup>. However, there is no guarantee that these vessels will run on low-carbon fuel, leading to the risk of a GHG lock-in effect in the long term. In addition, the issuer does not fully exclude the transportation of coal by the vessels financed under the framework; up to 25% of the freight transported annually could include coal. The issuer will only be able to report on the type of fuel used and the share of fossil fuel traded at the end of the fiscal year in the annual reporting. Finally, the financing of new energy-efficient vessels can lead to an absolute increase in GHG emissions in the shipping sector, as these new vessels may replace older ones that are sold rather than dismantled or may simply expand the company's fleet.

Renewable energy



The production and transportation of hydrogen and ammonia for the targeted sectors of application is significantly relevant to address the need for low-carbon fuels development. Expanding the production of low-carbon hydrogen and ammonia will be critical for helping sectors across the economy transition toward their respective net-zero scenarios by 2050<sup>6</sup>. Currently, low-carbon hydrogen is a scarce resource that will require exponential development over the next decade to meet future aggregate demand<sup>7</sup>. Because the decarbonization potential of hydrogen and ammonia can vary across industries, the relevance of these fuels in advancing climate mitigation strategies largely depends on the sectors in which they are used. In this case, the produced hydrogen will most likely be used in the refining, chemicals and shipping sectors, while ammonia will be used in shipping, mining and agriculture for fertilizers. Among these sectors, the most relevant use is in agriculture, while the decarbonization potential in other sectors, such as refining, is less relevant. Alone, the use of hydrogen in refining processes is considered of limited relevance. In this category, the company also finances infrastructure for electricity uptake, such as dual-fuel generators targeting off-grid areas, which justifies their significant relevance. However, the lack of specified countries for these projects hinders our ability to assess their necessity or any local constraints. To a lesser extent, the category also covers research and development for low-carbon uptake, such as dual-fuel engines, the relevance of which is aligned with the clean transportation category.

The magnitude is high, primarily because of the low-carbon content of the hydrogen and ammonia produced. Most of the proceeds in this category will be allocated to expanding the company's green hydrogen production via water electrolysis, which is the most effective technology for generating low-carbon hydrogen. Although the framework mentions the EU taxonomy threshold of 3 tCO<sub>2</sub>e/tH<sub>2</sub>, the company has stated that the electrolysis process will be powered by on-site renewable energy sources, achieving emissions lower than 1.5 tCO<sub>2</sub>e/tH<sub>2</sub>, which meets the highest available standards. The ammonia produced will use this low-carbon hydrogen, and the air separation units will also be powered by renewable energy. The carbon content of the ammonia should be below 0.25 tCO<sub>2</sub>/tNH<sub>3</sub>, which aligns with the lowest emissions standards<sup>8</sup>. For comparison, ammonia produced with coal or oil has a carbon content of 2.5-3.8 tCO<sub>2</sub>/tNH<sub>3</sub>, and ammonia produced with natural gas has around 1.6 tCO<sub>2</sub>/tNH<sub>3</sub><sup>9</sup>. A small portion of the funds will be allocated to dual-fuel generators that use both hydrogen or ammonia and diesel. These generators can reduce CO<sub>2</sub> emissions per kWh by up to 85%, which is significant. However, it is important to note that these generators can continue to consume fossil fuels throughout their lifespan. To a lesser extent, the category also covers research and development for low-carbon uptake, such as dual-fuel engines, the magnitude of which is aligned with the clean transportation category.

#### Additional contribution to sustainability considerations

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

CMB.TECH has established a robust risk management framework to identify potential hazards, assess risks and implement preventive measures to minimize incidents. The company has allocated appropriate resources dedicated to environmental risk management, aligning with ISO 14001 certification. The company is subject to high environmental risks because of its inherent activities (deals in oil tankers, chemical tankers, etc.). Thus, it has established a clear Health, Safety, Quality and Environment (HSQE) management system to face environmental or social emergencies. Also, when planning projects at the design or operational phase, CMB.TECH sets criteria for third-party suppliers and contractors to follow health, safety and environmental good practices.

CMB.TECH's investments are considered coherent with its wider sustainability strategy to decarbonize the shipping sector through the development of low-carbon solutions for vessels. By developing such technologies, the issuer aims to participate to enhance energy efficiency and reduce GHG emissions, thus contributing to the broader goal of climate change mitigation of the shipping sector. The development of low-carbon shipping and energy solutions contribute to the company's goal to reduce the carbon intensity of its global fleet by 40% by 2030 compared to 2008. However, it is important to note that the company does not fully exclude the transportation of fossil fuels in its vessels — up to 25% of the amount transported by a given vessel can be coal.

## Appendix 1 - Alignment with principles scorecard for CMB.TECH's green financing framework

Factor	Sub-factor	Component	Component score	Sub-factor score	Factor score	
Use of proceeds	Clarity of the eligible categories	Nature of expenditure	A	Best practices	<b>Best practices</b>	
		Definition of content, eligibility and exclusion criteria for nearly all categories	A			
		Location	A			
		BP: Definition of content, eligibility and exclusion criteria for all categories	Yes			
	Clarity of the objectives	Relevance of objectives to project categories for nearly all categories	A	Best practices		
		Coherence of project category objectives with standards for nearly all categories	A			
		BP: Objectives are defined, relevant and coherent for all categories	Yes			
	Clarity of expected benefits	Identification and relevance of expected benefits for nearly all categories	A	Best practices		
		Measurability of expected benefits for nearly all categories	A			
		BP: Relevant benefits are identified for all categories	Yes			
		BP: Benefits are measurable for all categories	Yes			
		BP: Disclosure of refinancing prior to issuance and in post-allocation reporting	Yes			
		BP: Commitment to communicate refinancing look-back period prior to issuance	Yes			
	Process for project evaluation and selection	Transparency and clarity of the process for defining and monitoring eligible projects	Clarity of the process	A		Best practices
			Disclosure of the process	A		
Transparency of the environmental and social risk mitigation process			A			
BP: Monitoring of continued project compliance			Yes			
Management of proceeds	Allocation and tracking of proceeds	Tracking of proceeds	A	Best practices		
		Periodic adjustment of proceeds to match allocations	A			
		Disclosure of the intended types of temporary placements of unallocated proceeds	A			
		BP: Disclosure of the proceeds management process	Yes			
		BP: Allocation period is 24 months or less	Yes			
Reporting	Reporting transparency	Reporting frequency	A	Best practices		
		Reporting duration	A			
		Report disclosure	A			
		Reporting exhaustivity	A			
		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	Yes					
<b>Overall alignment with principles score:</b>					<b>Best practices</b>	

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

The two categories included in CMB.TECH's 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	Renewable energy	7.2: Increase substantially the share of renewable energy in the global energy mix
GOAL 9: Industry, Innovation and Infrastructure	Renewable energy Clean	9.4: Upgrade infrastructure and retrofit industries to make them sustainable, with all countries taking action
GOAL 13: Climate Action	transportation	

The mapping of the UNs' SDGs in this SPO considers the eligible project categories and associated sustainability objectives/benefits documented in the issuer's financing framework, as well as resources and guidelines from public institutions, such as the ICMA's SDG Mapping Guidance and the UN's SDG targets and indicators.



### Appendix 3 - Summary of eligible categories in CMB.TECH's framework

Eligible Category	Sub-category	Description	Sustainability Objective	Impact Reporting Metrics
Clean Transportation	Low carbon sea transportation	<p>Low carbon sea transportation Investments into vessels tailored to installation, maintenance and repair of wind turbines and the ancillary technical equipment, which meet the EU Taxonomy's substantial contribution criteria for activities 7.6(d)</p> <p>[CAT.1] Expenditures of sea or coastal hydrogen-diesel or ammonia-diesel engine vessels which meet the relevant EU Taxonomy's substantial contribution criteria for activities 6.10 or 6.11. (due to the nature of the vessels, some will not have plug-in at berth. All other taxonomy criteria will be met)</p> <p>[CAT.2&amp;3] Investments into dual fuel Hydrogen-fitted vessels such as Coastal Cargo Vessels and Small Scale Transition Vessels with an emission reduction of at least 40% relative to comparable mono-fuel diesel vessel. (EEDI scores are not available for this vessel type)</p>	Climate change mitigation Pollution prevention and control	<ul style="list-style-type: none"> <li>- Estimated CO2 emissions, SOx, NOx or fine particles savings or reduction ratio as compared to a conventional vessel</li> <li>- Major specifications and capacity intake of fuel resulting in zero tailpipe emission: H2 tank capacity,</li> <li>- Measured and calculated Energy Efficiency Operational Index [grCO2/ton-miles]</li> <li>- Used Energy Efficiency Design Index [grCO2/ton-miles]</li> <li>- Measured GHG/SOx emission ratio before and after the introduction of equipment or systems compared to standard operations</li> <li>- Energy efficiency improvements</li> <li>- Annual energy savings in MWh</li> <li>- Annual GHG emissions reduced/avoided in tonCO2e</li> <li>- Manufacture of low carbon technologies for heavy land transport industry (other application than sea transport)</li> </ul>
	Energy efficiency improvement	[Cat.4] Cost directly related to upgrade existing vessels to dual fuel ready vessels. (Only cost related to this upgrade will be allocated)		<ul style="list-style-type: none"> <li>- Amount of hydrogen capacity installed on the applications</li> <li>- Engine power retrofitted</li> <li>- Number of new low environmental impact vehicles</li> <li>- Type and location of financed engines or vehicles</li> <li>- Estimated CO2 / NOx emissions per kilometer for land transportation applications compared to the same conventional application</li> <li>- Estimated GHG saving as compared to a diesel application</li> </ul>
	Manufacture of low carbon technologies for heavy duty land and rail based vehicles	<p>Expenditure for the development and production of dual fuel hydrogen/diesel engines or vehicles in industry and heavy-duty (with a maximum mass carrying exceeding 7.5 tons) land transport applications which meet the EU Taxonomy's substantial contribution criteria for activities 3.3, 6.2 or 6.6.</p> <p>[Cat.5] Investments into dual-fuel hydrogen fitted land-based heavy duty vehicles with an emission reduction of at least 40% relative to comparable mono-fuel diesel vehicle.</p>		

Eligible Category	Sub-category	Description	Sustainability Objective	Impact Reporting Metrics
Renewable energy	Production and distribution of low carbon hydrogen and anhydrous ammonia	<p>Manufacture of hydrogen and hydrogen-based synthetic fuels (such as ammonia), with life-cycle GHG emissions savings requirement of 73.4% for hydrogen [resulting in life-cycle GHG emissions lower than 3TCO<sub>2e</sub>/Th<sub>2</sub> and 70% for hydrogen-based synthetic fuels relative to a fossil fuel comparator of 94g CO<sub>2e</sub>/MJ. Hydrogen will be produced via electrolysis, exclusively using wind and solar photovoltaic power.</p> <p>Development and production of low carbon ammonia will use low carbon hydrogen complying with the criteria set out above.</p>	Climate Change Mitigation Pollution prevention and control	<ul style="list-style-type: none"> <li>- Production and distribution of low carbon hydrogen and anhydrous ammonia</li> <li>- Amount of hydrogen or ammonia distributed per year</li> <li>- Estimated GHG emissions avoided thanks to the improved efficiency and provision of alternative green fuels</li> <li>- Ton of green hydrogen produced per year</li> </ul>
	Manufacture of equipment for the production and use of hydrogen and ammonia	Development of refuelling stations and infrastructure producing, storing, using, and supplying low carbon hydrogen and ammonia to enable low carbon water and road transport		<ul style="list-style-type: none"> <li>- % of renewable energy used to produce the hydrogen and ammonia</li> <li>- Number of refuelling stations installed</li> <li>- Number of bunker operations per year</li> </ul>
	Infrastructure for the electricity generation from low carbon hydrogen or ammonia	Development and installation of generator sets for electricity generation from green hydrogen or ammonia with life-cycle GHG emissions lower than 100 gCO <sub>2</sub> /kWh.		<ul style="list-style-type: none"> <li>- Infrastructure for the electricity generation from green hydrogen or green ammonia</li> <li>- Amount of kWh of green electricity provided per year</li> <li>- Estimated CO<sub>2</sub> and NO<sub>x</sub> savings as compared to a diesel fuelled generator set</li> </ul>
	R&D relating to developing low carbon hydrogen and ammonia	Investments into R&D relating to the development of dual fuels assets (H <sub>2</sub> /NH <sub>3</sub> ) and the production, usage and distribution of low carbon hydrogen and ammonia produced via electrolysis from renewable energy which meets criteria above.		<ul style="list-style-type: none"> <li>- % of kWh produced via green hydrogen / ammonia of the total electric production</li> <li>- Number of generator sets delivered</li> <li>- Amount of running hours</li> <li>- Capacity factor of the installed generators</li> </ul>

## Endnotes

- 1 The point-in-time assessment is applicable only on the date of assignment or update.
- 2 [International Shipping](#), International Energy Agency (accessed in March 2025).
- 3 [Ships](#), Transport & Environment (accessed in March 2025)
- 4 [A pathway to decarbonize the shipping sector by 2050](#), International Renewable Energy Agency, 2021.
- 5 [Shipping industry net-zero tracker](#), World Economic Forum, 2024.
- 6 [Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach](#), 2023 Update.
- 7 [Probabilistic feasibility space of scaling up green hydrogen supply](#), A. Odenweller, et al. (2022) Nature Energy.
- 8 [Ammonia: zero-carbon fertilizer, fuel and energy store, policy briefing](#), The Royal Society, February 2021.
- 9 [Low carbon energy and feedstock for the European chemical industry](#), Dechema.

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 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.

© 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 contained 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 and 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 [ir.moody's.com](http://ir.moody's.com) 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 Clasificadora 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 61 003 399 657 AFSL 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** 1441071