

An S&P Global Second Party Opinion (SPO) includes S&P Global Ratings' opinion on whether the documentation of a sustainable finance instrument, framework, or program, or a financing transaction aligns with certain third-party published sustainable finance principles. Certain SPOs may also provide our opinion on how the issuer's most material sustainability factors are addressed by the financing. An SPO provides a point-in-time opinion, reflecting the information provided to us at the time the SPO was created and published, and is not surveilled. We assume no obligation to update or supplement the SPO to reflect any facts or circumstances that may come to our attention in the future. An SPO is not a credit rating, and does not consider credit quality or factor into our credit ratings. See [Analytical Approach: Second Party Opinions](#).

## Second Party Opinion

# TRATON Group Green Finance Framework

Oct. 27, 2025

**Location:** Germany

**Sector:** Commercial vehicles

### Alignment Summary

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

- ✓ Green Bond Principles, ICMA, 2025
- ✓ Green Loan Principles, LMA/LSTA/APLMA, 2025

See [Alignment Assessment](#) for more detail.

### Primary contact

**Anna Liubachyna**  
London  
+44 79 71 362 293  
anna.liubachyna  
@spglobal.com

**Dark green**

Activities that correspond to the long-term vision of a low-carbon climate resilient future.

Our [Shades of Green Analytical Approach](#) >

## Strengths

**Focus on producing battery-electric vehicles (BEVs), involving the entire value chain and electrification, both central to decarbonizing road transport in the EU.** This focus aligns with the group's commitment to reducing greenhouse gas emissions across its entire value chain via decarbonizing its product portfolio by investing in BEV production. The company also has a strong circularity strategy, which is integrated across all its brands.

**A strong process for assessing, selecting, and evaluating the environmental impacts of financed projects.** TRATON's rigorous system is based on internal classifications under which it identifies the main risks and benefits of assets, production lines, and research and development (R&D) projects.

## Weaknesses

No weaknesses to report.

## Areas to watch

**Decarbonizing the company's product portfolio depends on external factors.** These include changes in regulatory support and consumer behavior, as well as the development of low-carbon and renewable fuel infrastructure that could slow down BEV adoption rates.

**The framework includes secured green standard bonds.** The proceeds of a green asset-backed security (ABS) will be allocated to eligible green assets and projects. Assets used as collateral in such ABS structures will at least match the average ABS portfolio composition of the respective brand with regard to the share of BEVs and, as such, may not exclusively be green.

## Shades of Green Projects Assessment Summary

All proceeds will finance BEVs, their entire value chain, from development to manufacturing, financial services, and charging infrastructure. TRATON Group expects to initially allocate the majority of proceeds to the research and development (R&D) and manufacturing of BEVs with a view to gradually transitioning to financing its captive business in the coming years.

Based on the project category's Shades of Green detailed below, the expected allocation of proceeds, and considering the environmental ambitions reflected in TRATON Group's Green Finance Framework, we assess the framework as Dark green.

### Battery electric vehicles across their value chain Dark green

Research and development of battery electric vehicles

Manufacturing of battery electric vehicles

Financial Services of battery electric vehicles

Charging Infrastructure of battery electric vehicles

See [Analysis Of Eligible Projects](#) for more detail.

## Issuer Sustainability Context

This section provides an analysis of the issuer's sustainability management and the embeddedness of the financing framework within its overall strategy.

## Company Description

TRATON Group (TRATON), together with its subsidiaries, manufactures and sells commercial vehicles. It operates through Scania Vehicles and Services; MAN Truck & Bus; International Motors (formerly Navistar); Volkswagen Truck & Bus (VWTB); and TRATON Financial Services. TRATON provides heavy-duty trucks, light commercial vehicles, construction vehicles, school buses (IC Bus), commercial buses, vans, and engines, along with transport and logistics services. In addition, it finances, insures, and leases commercial vehicles.

In 2024, TRATON generated total revenue of €47.5 billion, with TRATON Operations accounting for about 98%. Within this, total unit sales stood at 334,215 vehicles, of which trucks made up around 83%, buses about 9%, and MAN TGE vans about 8%. TRATON Financial Services made up the remaining 2% of revenue. The majority of earnings are derived from the sale of new and used vehicles, as well as related services and spare parts. Its main markets are Europe (excluding Germany; 37%), the U.S. (19%), Germany (12%), Brazil (11%), North America (excluding the U.S.; 7%), South America (3%), and other regions.

TRATON is majority owned by VW, which holds 87.5% of its share capital. It is listed on the Frankfurt Stock Exchange and Nasdaq Stockholm. It is headquartered in Munich, Germany, and has 105,541 employees globally.

## Material Sustainability Factors

### Climate transition risk

Road passenger and freight vehicles contribute approximately 19% of global greenhouse gas emissions according to the International Energy Agency (IEA). The number, scope, and ambition of regulatory requirements regarding greenhouse gases are expected to increase significantly in the future for the automotive sector. For example, the EU expanded the scope of its emission targets for heavy-duty vehicles to include all emissions from heavy and medium trucks, city buses, coaches, and trailers; increased its target by aiming for reductions of 90% by 2040; and introduced an incentive mechanism for zero-emissions and low-emissions heavy-duty motor vehicles. The U.S. Environmental Protection Agency (EPA) also updated its standards to reduce emissions from heavy-duty vehicles starting in 2027. As a result, climate transition risk management is at the forefront of global original equipment manufacturers (OEMs) and suppliers' strategies and is transforming their value chains. The transformation requires significant investments in manufacturing plants and R&D.

### Pollution

The road transportation sector significantly contributes to air pollution, given the mobile combustion of fossil fuel for vehicles, and is one of the main causes of the release of nitrogen oxides, carbon monoxide, and non-methane volatile organic compounds. The implications of such emissions range from declining public health in urban cities to ecosystem harm, such as weaker crop yields in rural areas adjacent to cities. More stringent regulations, such as the EURO 7 emissions standard and U.S. EPA multipollutant emissions standards, have reduced air pollutants emitted by internal combustion engines. The IEA's net zero emissions scenario expects electric two- or three-wheelers to represent 100% of vehicle shares in 2035, while trucks will be less than 60%. The acceleration in EV adoption could result in reduced local air pollution related to vehicle use. Nevertheless, since mining is crucial to facilitating the large-scale implementation of EVs, the sector is exposed to the air and wastewater pollution risks of its supply chain.

### Waste and recycling

The recyclability of batteries and other significant materials used in vehicles, such as steel and aluminum, is increasingly a focus for OEMs and regulators given the environmental risks associated with disposing of such parts at the end of their life cycles and the emissions associated with their production. To manage such risks, we anticipate that circular product life cycle management will become more strictly regulated. Although steel and aluminum have established recycling chains, where recovered materials have economic value, vehicle battery recycling is still in its early stages.

### Customer health and safety

According to the World Health Organization's 2023 Global Status Report on Road Safety, road fatality rates decreased over the past decade in most regions around the globe, thanks to improving safety gear and regulation. The report found that, in 2023, heavy goods vehicles and those classified as "other", such as buses, accounted for 19% of road fatalities. That said, fatalities related to all vehicle types have decreased globally, with the largest reduction in Europe at 36% between 2010 and 2023. Despite the drop in the likelihood of accidents, factors such as human error, fire incidents, autopilot failure could still cause irreversible damage, such as loss of life. As such, health and safety is highly material for customers, regulators, OEMs, and auto suppliers, and a key consideration in the development of autonomous vehicles. More broadly, perceptions from the public of poor safety standards can have major and persistent impacts on an entity's reputation, consumer trust, and its competitive position.

## Issuer And Context Analysis

**The framework's eligible project category aims to address the sustainability issues we consider most material for the issuer.** Investments in BEVs will help mitigate its climate transition and pollution risks by producing zero tailpipe-emission alternatives to internal combustion engine vehicles. As TRATON seeks to ensure recyclability in its vehicles and batteries, the financed projects may somewhat mitigate its value chain waste risks. However, the financing also introduces increased use of batteries, which carries inherent risks related to their metals and hazardous chemical components.

**TRATON has established key levers for decarbonization, focusing on full value chain decarbonization.** TRATON has conducted a qualitative scenario analysis to evaluate pathways to climate neutrality and net-zero CO<sub>2</sub> emissions by 2050, in line with the United Nations' Paris Agreement. The analysis highlighted the growing need for electrification and BEV ramp-up as critical to meeting climate targets, along with improvements in combustion engine efficiency. The company has committed to reducing greenhouse gas emissions from commercial vehicles, with two brands, Scania and MAN--more than two-thirds of TRATON's annual sales volumes--setting specific targets. Scania aims for a 50% reduction in scope 1 and 2 and a 45% reduction in scope 3 use-phase emissions (intensity target, per driven km WtW) by 2032 from a 2022 baseline; by 2030 (2019 base year) MAN targets a 70% cut in its own operation's emissions and a 28% cut in scope 3 fleet emissions per vehicle kilometer. However, the achievement of scope 3 targets largely depends on external conditions. These include changes in regulatory support and consumer behavior, as well as the development of reliable renewable fuel infrastructure and grid capacity.

**TRATON is integrating physical climate risk identification into its operations.** It conducted a risk and vulnerability assessment of 22 of its 25 production sites and major research and development locations, considering factors such as historical damage data, water consumption, building structures, and exposure to events like heat stress, flooding, and water scarcity.

**TRATON manages waste through its circularity strategy, which aims to decouple resource use from business growth and integrate sustainable materials management across its brands.** The company aims to reduce resource consumption and waste generation across its value chain, with a focus on the use phase of its vehicles and its own operations. TRATON encourages partners to adopt circular design, re-use materials, recycle, and manage waste and chemicals safely. The company has introduced recycled materials, remanufacturing, and refurbishing to help reduce waste, integrating circular design principles and operating active remanufacturing programs across all brands. For example, the group's exchange parts program supports vehicle longevity and resource efficiency by refurbishing returned parts for reuse, while unrecoverable components are replaced with new ones. TRATON extends battery life through repair and repurposing for energy storage, then recycles end-of-life units to recover lithium, nickel, and cobalt for new battery production, and collaborates with recycling partners to recover lithium and other essential materials from waste streams. TRATON sees pollution as material factor in the industry, however the responsibility of managing it rests with individual brands. It has yet to establish detailed group-wide policies or specific targets to address pollution.

**TRATON has a comprehensive quality management system covering product design, manufacturing, suppliers, and in-life monitoring.** TRATON has established a product safety and conformity policy that stipulates that TRATON entities bringing products to market adhere to organizational and procedural frameworks. This policy aims to ensure that, in the field, identified risks against safety and/or conformity are detected, assessed, and appropriately mitigated. The policy also specifies multi-brand collaboration among the TRATON brands, setting consistent, groupwide standards that align with the group's module and component strategy. TRATON conducts regular internal audits to ensure compliance with, and the effectiveness of, all actions required by the product safety and conformity policy.

# Alignment Assessment

This section provides an analysis of the framework's alignment to Green Bond and Loan principles.

## Alignment Summary

Aligned = ✓    Conceptually aligned = ○    Not aligned = ✗

✓ Green Bond Principles, ICMA, 2025

✓ Green Loan Principles, LMA/LSTA/APLMA, 2025

### ✓ Use of proceeds

We assess the framework's green project category as having a green shade. Please refer to the Analysis of Eligible Projects section for more information on our analysis of the environmental benefits of the expected use of proceeds. The issuer commits to allocate the net proceeds from the instruments issued under the framework exclusively to eligible green projects. Instruments that will be eligible under this framework include green bonds, loans, "schuldschein," and asset-backed securities (ABS). The framework notes that the collateral portfolio will be at least representative of the average ABS eligible portfolio composition of the respective brand(s) with regard to the share of BEVs within TRATON. In addition, the company will disclose the share of financing versus refinancing in its allocation of proceeds and has set a maximum three-year look-back period for the refinancing of operating expenditure.

### ✓ Process for project evaluation and selection

The framework outlines a process that TRATON has developed to evaluate and select potential projects. TRATON's Green Finance Committee (GFC) is responsible for evaluating and selecting potential projects. The GFC comprises members from Treasury at TRATON SE and TRATON Financial Services as well as the ESG and Sustainability and Group Finance departments. Potential environmental and social risks associated with projects are managed in line with TRATON's overarching policies and concepts. The framework outlines an exclusion list, which excludes all investments directly related to internal combustion engine vehicles and plug-in hybrid vehicles as well as activities directly associated with fossil fuels and/or any activity associated with the entire life cycle of internal combustion engine technology.

### ✓ Management of proceeds

The allocation of the net proceeds will be tracked to ensure that they exclusively finance eligible projects, with the companies establishing an eligible green assets and projects register. TRATON will ensure that the value of the green asset portfolio exceeds the value of outstanding green bonds for the whole duration of the bond. The company commits to allocate the net proceeds from issuances under the framework within 12 months from issuance, on a best-effort basis. Unallocated proceeds may be temporarily placed in line with the liquidity reserves guidelines, taking the exclusion criteria into account. For any green loans falling under the scope of the framework, the issuer seeks to align with the 2025 update of the Green Loan Principles. With respect to the additional requirements of these principles, we understand TRATON will not issue a multi-tranche facility within the green finance framework that includes nongreen tranches.

### ✓ Reporting

TRATON commits to disclosing the allocation and impact of proceeds annually within its Green Finance Report until full allocation of the proceeds. The allocation report will include a description of the portfolio of eligible assets, the type of financing instruments used and respective outstanding amounts, information on the split between new financing and refinancing, and a list of eligible assets with the amount allocated and the geographical distribution. The impact report will include metrics such as BEVs sold and financed and extracts of a life cycle assessment. TRATON's Green Finance Report will be verified by an independent third party.

# Analysis Of Eligible Projects

This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the "[Analytical Approach: Shades Of Green Assessments](#)".

## Overall Shades of Green assessment

Based on the project category shades of green detailed below, the expected allocation of proceeds, and considering the environmental ambitions reflected in TRATON Group's Green Finance Framework, we assess the framework as Dark green.

**Dark green**

Activities that correspond to the long-term vision of a low-carbon climate resilient future.

Our [Shades of Green Analytical Approach](#) >

## Green project category

### Battery electric vehicles across their value chain

#### Assessment

 Dark green

#### Description

##### Research and development of BEVs:

- Electronic and electronic software platforms

Investments in technological foundations essential for BEVs, which enhance cruise efficiency and safety for trucks and fleets.

- E-Propulsion

Investments in toolbox systems, power transmissions, powertrains and electric axles, which are essential for BEVs.

- Battery and charging technology

Investments in batteries and battery capacity including software and hardware to support charging and mega-charging, enabling long-haul applications. This sub-category also includes thermal systems designed to enhance battery performance.

##### Manufacturing of BEVs:

Investment in construction, production facilities, production and assembly lines, and advanced manufacturing processes, which are crucial for scaling up BEV production. This sub-category includes tooling, testing, and precision engineering dedicated to the efficient assembly of BEVs.

##### Financial services for BEVs:

Financing of customer loans and leases for BEV clients of related TRATON Group brands.













##### Charging infrastructure for BEVs:

Investments in charging infrastructure such as advanced charging technologies and stations.

### Analytical considerations

- Mitigating greenhouse gas emissions from transportation will be crucial to meeting global decarbonization goals given that road transport and freight vehicles account for 19% of global energy-related greenhouse gas emissions, according to the IEA. Fossil-fuel-powered vehicles also create air pollution, such as nitrogen oxides and sulfur oxides. Zero tailpipe emission vehicles have an important role in transportation decarbonization. However, their production entails climate and environmental risks and impacts. These include energy-intensive manufacturing processes, the mining of raw materials and metals (especially for batteries), and circularity.
- We assess as Dark green TRATON's investments in the development and manufacturing of BEVs and charging infrastructure as well as the provision of loans to customers purchasing these vehicles. Our assessment primarily reflects the role of these projects in the decarbonization of road transport and TRATON's product portfolio, as well as its measures to address other environmental factors in its processes.
- The issuer has confirmed that no proceeds under this framework will be used for joint production lines, shared tools or machinery, or any activities related to the manufacture or assembly of internal combustion engine or plug-in hybrid vehicles. Most of TRATON's European production sites are already powered by electricity from renewable energy sources. The remaining sites plan to make the switch to renewable energy in the coming years.
- About 96% of the group's greenhouse gas emissions are generated from the use of its products, so investments in R&D and the manufacturing of BEVs are key to TRATON's decarbonization efforts. One of the main levers for decarbonizing trucks is electrification, which will require a substantial increase in renewable electricity supply and may lead to extensive upgrades of grid infrastructure. Therefore, the availability of charging infrastructure and adequate renewable electricity is a key enabler of the transition. We view positively TRATON's efforts to improve this availability. It has established strategic partnerships such as TRATON Charging Solutions and is investing in the Milence joint venture, which aims to support the development of charging networks and promote a faster transition to electric transportation. TRATON Charging Solutions provides reliable charging services aimed at improving access to charging infrastructure for commercial vehicle operators. Milence was founded by TRATON Group, Daimler Truck, and the Volvo Group in 2022 and is dedicated to establishing and operating 1,700 high-performance public charging points powered by fossil-free electricity for heavy-duty across Europe by 2027.
- Eligible vehicles are exposed to the value chains of the end users that purchase and operate them. While they reduce certain transport-related emissions, the vehicles may support industries with substantial climate and environmental impacts. TRATON has excluded the financing for vehicles designated for the transportation of fossil fuels from the scope of this framework. Additionally, the process of providing customers' loans and leases for BEVs involves internal checks and ensures that financed assets meet TRATON's green finance commitments. The company also applies internal checks to assess high-risk end users, including those in sectors with elevated ESG risks or that operate in conflict-affected areas.
- TRATON focuses on the circular design of its products to reduce emissions and resource consumption. In line with these commitments, TRATON intends to incorporate materials with recycled content and reused parts in its offer. TRATON has introduced circular principles as a part of its common product development process. Additionally, TRATON undertakes remanufacturing and spare parts sales as part of the brand's circular service business. The group prioritizes scaling up remanufacturing services through cross-brand collaboration.
- Circularity is especially relevant for battery production as it relies on many critical materials. It is estimated that 85% of the batteries delivered to a company contracted by TRATON and its brands can be easily re-used after repair or have a second life. For instance, MAN is establishing battery repair centers throughout Europe and has in-house remanufacturing capabilities. When batteries reach end-of-life, TRATON uses both mechanical and hydrometallurgical recycling to recover raw materials like nickel, cobalt, and lithium. The recycled materials are fed back into new battery production, supporting a closed-loop system.
- BEVs are inherently subject to environmental and social risks associated with their battery supply chains. These include high energy consumption, biodiversity impacts, and pollution linked to the extraction and processing of metals and minerals. Additionally, batteries pose pollution risks at the end of their life cycle due to the hazardous materials they contain. Some of these risks can be mitigated through regulatory frameworks, such as the EU Batteries Directive. TRATON manages its supplier relationships largely via the Responsible Supply Chain System (ReSC System), applicable to the whole Volkswagen Group (the parent company). In addition, TRATON's brands follow the five steps of the OECD Due Diligence Guidance for Responsible Business Conduct and the requirements of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

S&P Global Ratings' Shades of Green

| Assessments   |   |   |  |   |  |  |
|---|---|---|--|---|--|--|
|  Dark green          |  Medium green  |  Light green   |  Yellow   |  Orange  |  Red  |  |
| <b>Description</b>  |   |   |  |   |  |  |
| Activities that correspond to the long-term vision of an LCCR future.                                 | Activities that represent significant steps toward an LCCR future but will require further improvements to be long-term LCCR solutions. | Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term LCCR solutions. | Activities that do not have a material impact on the transition to an LCCR future, or, Activities that have some potential inconsistency with the transition to an LCCR future, albeit tempered by existing transition measures. | Activities that are not currently consistent with the transition to an LCCR future. These include activities with moderate potential for emissions lock-in and risk of stranded assets. | Activities that are inconsistent with, and likely to impede, the transition required to achieve the long-term LCCR future. These activities have the highest emissions intensity, with the most potential for emissions lock-in and risk of stranded assets. |  |
| <b>Example projects</b>   |   |   |  |   |  |  |
|  Solar power plants |  Energy efficient buildings                           |  Hybrid road vehicles                               |  Health care services  |  Conventional steel production  |  New oil exploration   |  |

Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

# Mapping To The U.N.'s Sustainable Development Goals

Where the financing documentation references the Sustainable Development Goals (SDGs), we consider which SDGs it contributes to. We compare the activities funded by the financing to the International Capital Markets Association (ICMA) SDG mapping and outline the intended linkages within our SPO analysis. Our assessment of SDG mapping does not affect our alignment opinion.

This framework intends to contribute to the following SDGs:

| Use of proceeds      | SDGs   |   |   |  |
|----------------------|--|---|---|--|
| Clean transportation | <br><b>9. Industry, innovation and infrastructure</b> | <br><b>11. Sustainable cities and communities*</b> | <br><b>12. Responsible consumption and production</b> | <br><b>13. Climate action</b> |

\*The eligible project categories link to these SDGs in the ICMA mapping.

## Related Research

- [Analytical Approach: Second Party Opinions](#), Mar. 6, 2025
- [FAQ: Applying Our Integrated Analytical Approach For Second Party Opinions](#), Mar. 6, 2025
- [Analytical Approach: Shades Of Green Assessments](#), Jul. 27, 2023
- [Analytical Approach: EU Taxonomy Assessment](#), Oct. 31, 2024
- [Analytical Approach: European Green Bond External Reviews](#), Oct. 31, 2024
- [FAQ: Applying Our Analytical Approach For European Green Bond External Reviews](#), Oct. 31, 2024

## Analytical Contacts

### Primary contact

**Anna Liubachyna**  
London  
+442071760494  
Anna.liubachyna  
@spglobal.com

### Secondary contacts

**Pierre-Brice Hellsing**  
Stockholm  
+46 707 822 823  
pierre-brice.hellsing  
@spglobal.com

**Tim Axtmann**  
Oslo  
Tim.axtmann  
@spglobal.com

### Research contributor

**Aditya Padhy**  
Pune  
Crisil Global Analytical Center,  
an S&P affiliate

## Second Party Opinion: TRATON Group Green Finance Framework

Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P) receives compensation for the provision of the Second Party Opinions product and the European Green Bond External Review product (separately and collectively, Product).

S&P may also receive compensation for rating the transactions covered by the Product or for rating the issuer of the transactions covered by the Product.

The purchaser of the Product may be the issuer.

The Product is not a credit rating, and does not consider credit quality or factor into our credit ratings. The Product does not consider, state or imply the likelihood of completion of any projects covered by a given financing, or the completion of a proposed financing. The Product is a statement of opinion and is neither a verification nor a certification. The Product is a point in time evaluation reflecting the information provided to us at the time that the Product was created and published, and is not surveilled. The Product is not a research report and is not intended as such. S&P's credit ratings, opinions, analyses, rating acknowledgment decisions, any views reflected in the Product and the output of the Product are not investment advice, recommendations regarding credit decisions, recommendations to purchase, hold, or sell any securities or to make any investment decisions, an offer to buy or sell or the solicitation of an offer to buy or sell any security, endorsements of the suitability of any security, endorsements of the accuracy of any data or conclusions provided in the Product, or independent verification of any information relied upon in the credit rating process. The Product and any associated presentations do not take into account any user's financial objectives, financial situation, needs or means, and should not be relied upon by users for making any investment decisions. The output of the Product is not a substitute for a user's independent judgment and expertise. The output of the Product is not professional financial, tax or legal advice, and users should obtain independent, professional advice as it is determined necessary by users.

While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

S&P and any third-party providers, as well as their directors, officers, shareholders, employees, or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness, or availability of the Product. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for reliance of use of information in the Product, or for the security or maintenance of any information transmitted via the Internet, or for the accuracy of the information in the Product. The Product is provided on an "AS IS" basis. S&P PARTIES MAKE NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDED BUT NOT LIMITED TO, THE ACCURACY, RESULTS, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT, OR FOR THE SECURITY OF THE WEBSITE FROM WHICH THE PRODUCT IS ACCESSED. S&P Parties have no responsibility to maintain or update the Product or to supply any corrections, updates, or releases in connection therewith. S&P Parties have no liability for the accuracy, timeliness, reliability, performance, continued availability, completeness or delays, omissions, or interruptions in the delivery of the Product.

To the extent permitted by law, in no event shall the S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence, loss of data, cost of substitute materials, cost of capital, or claims of any third party) in connection with any use of the Product even if advised of the possibility of such damages.

Some of the Product may have been created with the assistance of an artificial intelligence (AI) tool. Published Products created or processed using AI is composed, reviewed, edited, and approved by S&P personnel.

S&P maintains a separation between commercial and analytic activities. S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

For PRC only: Any "Second Party Opinions" or "assessment" assigned by S&P Global Ratings: (a) does not constitute a credit rating, rating, sustainable financing framework verification, assessment, certification or evaluation as required under any relevant PRC laws or regulations, and (b) cannot be included in any offering memorandum, circular, prospectus, registration documents or any other document submitted to PRC authorities or to otherwise satisfy any PRC regulatory purposes; and (c) is not intended for use within the PRC for any purpose which is not permitted under relevant PRC laws or regulations. For the purpose of this section, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

For India only: Any "Second Party Opinions" or "assessments" assigned by S&P Global Ratings to issuers or securities listed in the Indian securities market are not intended to be and shall not be relied upon or used by any users located in India.

Australia: S&P Global Ratings Australia Pty Ltd provides Second Party Opinions in Australia subject to the conditions of the ASIC SPO Class No Action Letter dated June 14, 2024. Accordingly, this Second Party Opinion and related research are not intended for and must not be distributed to any person in Australia other than a wholesale client (as defined in Chapter 7 of the Corporations Act).

Copyright © 2025 by Standard & Poor's Financial Services LLC. All rights reserved.