S&P Global
Ratings

Powered by Shades of Green

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

Boliden AB's Green Finance Framework

May 6, 2025

Location: Sweden **Sector:** Metals & mining

Alignment Summary

Aligned = ✓ Conceptually aligned = o Not aligned = ×

✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

See Alignment Assessment for more detail.

Primary contact

Rita Ferreira
Madrid
+34 616 374 607
Rita.ferreira
@spglobal.com

Medium green

Activities that represent significant steps towards a low-carbon climate resilient future but will require further improvements to be long-term low-carbon climate resilient solutions.

Our Shades of Green Analytical Approach >

Strengths

The refinancing of the Odda low carbon zinc smelter is the main eligible investment under the framework. It supports the transition of a hard-to-abate sector, through energy efficiency measures and use of renewable energy. The produced zinc is well below industry average. Overall, the framework supports Boliden's 2030 climate strategy, which aims to achieve a 42% reduction in absolute scope 1 and 2 emissions and 30% reduction in absolute scope 3 emissions.

Boliden-owned mines and smelters are well below the global average in their environmental impact. Boliden calculates the carbon footprint of the metals produced using a life cycle approach analysis (LCA). A verified third party verifies the calculations done for the copper, zinc, lead, nickel, and sulfuric acid the issuer produces.

Weaknesses

No weakness to report.

Areas to watch

Boliden's mining and smelting operations are highly energy intensive and partly rely on fossil fuels. Parts of the metals' reduction process are currently dependent on coal and coke. While the issuer is investigating technologies to reduce those emissions, for example by substituting fossil-based reduction agents with biomaterials and transitioning to hydrotreated vegetable oil (HVO) fuels, this replacement is at its early stages and there is currently no clear pathway toward the 2050 solution for these emissions.

Mining and processing have significant environmental and social impacts, which need to be managed carefully. Boliden operations are covered by environmental regulations and permits of the countries in which it operates: Norway, Sweden, Finland, and Ireland. The company has also comprehensive environmental policies, addressing relevant issues, such as biodiversity and waste management.

Shades of Green Projects Assessment Summary

Over the three years following issuance of the financing, Boliden expects to allocate most proceeds to refinancing projects, specifically the Odda Expansion Project (Green Zinc Odda).

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

Energy Efficiency	**Medium green**
Energy efficient activities, equipment, systems and related infrastructure in line with Boliden's roadmap to achieve its climate targets (reduce absolute Scope 1 and 2 GHG emissions by 42% and absolute Scope 3 GHG emissions by 30% from a 2021 base year) by 2030.	

Pollution, prevention and control	**Medium to Light green**
Pollution prevention: facilities, and systems supporting pollution prevention such as discharges of pollutants into water and/or emissions to air.	
Waste management: facilities, and systems, contributing to a resource efficient management of waste, including reduction recycling, recovery and reuse of waste.	

Renewable energy	**Medium green**
Solar power	
Wind power	
Bioenergy	

Clean transportation	**Dark green**
Road transport and construction equipment with zero direct (tailpipe) CO2 emissions.	
Supported infrastructure for zero direct (tailpipe) CO2 emissions e.g. charging stations.	

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

Sweden-based Boliden AB is a metal producer active in exploration, mining, smelting, and recycling. Its revenues totaled SEK89,207 million (USD8.9 billion) in 2024. Boliden mines and processes nonferrous base and precious metals. The company operates five mines and five smelters in Sweden, Finland, Norway, and Ireland. Boliden's clients are primarily industrial clients in Northern Europe, with direct customers being steel producers, cable manufacturers, and battery producers. In 2023, copper accounted for 38% of Boliden's sales, followed by zinc (18%), gold (18%), silver (12%), nickel (7%) and lead (5%). In December 2024, Boliden agreed with Lundin Mining to acquire the Neves-Corvo mine in Portugal and the Zinkgruvan mine in Sweden. The transaction, expected to close in mid-2025, will enhance Boliden's mine production, and its internal zinc and copper concentrate supply.

Boliden is publicly traded in the Nasdaq Stockholm and its largest shareholders include BlackRock (6.8% of share ownership), Vanguard (4.2%), Swedbank Robur Fonder (3.6%), and Nordea Funds (2.5%).

Material Sustainability Factors

Climate transition risk

The mining and metals sector is responsible for 2%-3% of global greenhouse gas emissions, while accounting for around 1% of global GDP. This is due to the energy-intensive nature of the mining of minerals and processing of metals, particularly primary metals versus recycled metals. The energy used in mining and processing often comes from fossil fuels, further contributing to greenhouse gas emissions. The emissions intensity of the mining and processing operations depends on several factors, including the specific commodity mined, the power source used, and the operational practices used by companies. The energy transition also presents opportunities for the sector, as it relies on metals like copper, lithium, cobalt, and nickel, which are essential for electrification and battery deployment.

Pollution, waste, and recycling

Mining and processing of metals may release toxic elements into the air, water, or soil. Many substances used to process ores and metals are hazardous, so that emissions, effluents, and residual waste can harm human health and ecosystems through land or water contamination. The management of waste and pollution is embedded within the operating plans for any assets in the industry, albeit with varying degrees of quality management, scrutiny, and risk around the world. The industry also results in considerable waste in the form of large volumes of untreated rock and processing residues. Companies keep tailings, a mixture of pulverized rock, water and processing chemicals in large impoundments, until fluids are recycled or evaporate. Wet storage facilities may experience leakages, with related contamination of water. Likewise, dry tailings may be major sources of dust until they are reclaimed, with typically vegetation planted to stabilize soils. Metals producers increasingly rely on scrap materials, when their collection is economical, potentially advancing circular economy principles.

Biodiversity and resource use

Mining often implies the transformation of large areas of land at all phases of a mine's life, from planning and optimizing its footprint, to closure and land restoration. More specifically, mining involves the removal of vegetation and soil, the movement of considerable volumes of rock, the conversion of land plots into waste disposal sites, and sometimes the diversion of

watercourses. Land use issues are especially acute when a company extracts minerals with naturally low concentration, or mines nearing the end of their economic life. Mining disrupts ecosystems because it releases toxic elements into the air, water, or soil, and it can also result in habitat fragmentation from land use change to mining. Waste from mining and processing can also have further impacts on biodiversity if not managed effectively.

Physical climate risk

Mines typically rely on extensive infrastructure to extract and process resources. Such large and widespread fixed assets are highly exposed to acute physical climate risks, especially since extreme weather events, including heat waves and storms, are becoming more frequent and severe. Over time, both acute and chronic risks--such as changing temperature and precipitation patterns and increasing water stress--may shorten the useful life of vehicles and infrastructure. Disruption can be both on direct operations and throughout the value chain, since mining involves for instance extensive logistics, from fuels and equipment transportation to the mining site, to the shipment of resources for further processing or to their end consumers.

Social factors

The sector's impact on communities is typically pronounced, as mine plans often incorporate sizable investments in infrastructure that can affect local living conditions. Constantly depleting deposits require exploring vast, new areas, potentially increasing friction with small communities, especially indigenous groups. At the same time, the mining industry is one of the most hazardous in the world, as per the International Labour Organization. Downstream metals production may also be dangerous because plants operate large machinery and processes at high temperatures. The impact on stakeholders may be extensive because safety incidents can involve significant operational disruptions, lengthy remediation or human casualties, potentially creating community friction or regulatory penalties. This is especially true for low-probability events like mine collapses, large equipment failures, or fugitive emissions.

Issuer And Context Analysis

The project categories in the green finance framework address climate transition risk, pollution, waste and recycling, and other environmental risks, which are key sustainability factors for Boliden. Energy efficiency, renewable energy, and clean transportation aim to address climate transition risks, while the pollution prevention and control project category focuses on the prevention of pollutant emissions and adequate management of waste, including tailings. Eligible projects also introduce additional environmental and social risks, such as exposure to physical climate risks and workforce health and safety issues.

Boliden's mining and smelting operations are emissions and energy intensive, partly relying on fossil fuels. Parts of the metals' reduction process are currently dependent on coal and coke. The issuer is investigating technologies to reduce those emissions, for example by substituting fossil-based reduction agents with biomaterials and transitioning to HVO fuels. However, this replacement is at its early stages and there is currently no clear pathway toward the 2050-solution for these emissions.

Boliden aims to achieve a 42% reduction in absolute scope 1 and 2 emissions and 30% reduction in absolute scope 3 emissions by 2030 compared with 2021. In December 2023, the Science Based Targets Initiative (SBTi) validated these targets according to the 1.5°C scenario. To meet these targets, Boliden is investing in electrification, energy efficiency improvements, and fuel switching. The company also engages with suppliers through assessments, data collection, and targeted actions, to reduce emissions across its supply chain. From 2021 to 2024, Boliden achieved a 13% reduction in its scope 1 and 2 emissions. Scope 3 emissions, on the other hand, increased by 18%, mostly due to major investment projects in Odda and Rönnskär.

Boliden calculates the carbon footprint of the metals it produces, using an LCA. The calculation, verified by a third party, is done for the copper, zinc, lead, nickel, and sulfuric acid the issuer produces. The LCA showed that most of the environmental impacts originated from supply of raw materials and that Boliden-owned mines and smelters compare well to the global average in their environmental impact. To complement its overall emission reduction targets, Boliden has also set targets relative to the emissions intensity of produced copper and zinc. By 2030, the company aims to achieve 100% of copper production with an average of 1.5kg CO_2e emissions per produced kg (compared with a current global average of 4.0 kg), and 100% of zinc production with an average of 1.0kg CO_2e emissions per produced kg (compared with a current global average of 3.6 kg). The intensity values for copper and zinc products are derived from the life cycle assessments. In 2024, 28% of produced copper was lower carbon copper (including recycled copper), and 21% of zinc was low-carbon zinc.

The metals Boliden produces have a wide range of end uses, with varying levels of contribution to a low-carbon economy. Its clients include steel producers, galvanizers, cable manufacturers, and battery producers. Some of the end uses of metals, such as

zinc or copper, can support the transition to a low carbon economy, including by enabling electrification (in the case of copper), or helping protect renewable energy infrastructure, such as wind towers, from rust (in the case of zinc). However, other end uses, such as transport or space technology, may not contribute to a low-carbon economy, and we do not have visibility regarding how much of Boliden's production volume is linked to each end use.

Boliden has also conducted a physical risk assessment, using the Representative Concentration Pathways (RCP) scenarios, which indicated the most significant climate hazards for its assets include water stress, drought, and flooding. The IPCC's RCP 4.5 and 8.5 scenarios were applied to three distinct time horizons: the present, 2030, and 2050. Each of the operational units within the company assess weather-related risks relevant risks for its operations, and conduct climate scenario analyses.

Boliden is exposed to other environmental risks, including those relating to pollution and waste and recycling. The issuer manages its waste streams in accordance with applicable regulation (specifically, the EU Directive on the Landfill of Waste and the Extractive Waste Directive) and handles the waste streams in line with the requirements of environmental permits. Regarding tailings, Boliden is implementing the Global Industry Standard for Tailings Management, with the target of having this standard in place at all its tailings facilities, located at both active and closed operations, by the end of 2025. According to the issuer, its investments in new treatment facilities, such as at Aitik, are done to minimize environmental impact.

Boliden has set targets on promoting biodiversity to mitigate the negative impacts of its operations. The company commits to enhancing biodiversity across all operational regions by 2030. Boliden follows a mitigation hierarchy, prioritizing the avoidance of any impact, if possible, minimizing negative impact that cannot be avoided, working on the restoration, rehabilitation, and ecological compensate for any residual impacts.

Boliden manages workforce safety risks through comprehensive policies and continuous monitoring across its operations. The company's health and safety policy applies to employees and contractors and highlights the requirement of safety training, and the importance of continuous monitoring of risky situations that could lead to accidents. Furthermore, all of Boliden's operations abide by the ISO 45001:2018 requirements of internal and external safety audits.

Boliden actively manages external stakeholder engagement, including with the communities its operations could affect. The company's policies address its commitment to engage with potentially affected communities, including Indigenous people. Furthermore, Boliden has a grievance mechanism in place, through a portal, accessible to external stakeholders, which allows reporting of suspected or actual serious irregularities and wrongdoings.

Alignment Assessment

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

Alignment Summary

Aligned = ✓ Conceptually aligned = o Not aligned = ×

✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

✓ Use of proceeds

We assess all the Framework's green project categories as having a green shade. Please refer to 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 issued under the framework exclusively to eligible green projects. In addition, the company will disclose the share of financing versus refinancing in its allocation of proceeds and has set a maximum look-back period for the refinancing of opex of three years, in line with market practice. Boliden has not set a maximum look-back period for refinancing capex.

✓ Process for project evaluation and selection

The framework outlines a process that Boliden has developed to evaluate and select potential projects. Boliden's Sustainable Finance Committee (SFC) is responsible for evaluating and selecting potential projects. The SFC comprises directors across Boliden's departments and holds the right to exclude any eligible green project if the project no longer meets the eligibility criteria defined in the framework.

Boliden identifies and managed potential environmental and social risks associated with projects through its risk management process, which includes ongoing risk monitoring, complemented by an annual consolidated risk scenario to assess company-wide risks. To be eligible, projects must align with Boliden's risk management, internal governance, policies, and comply with environmental, social permits, local laws, and regulations.

The Framework outlines an exclusion list, which includes investments linked to fossil energy generation, nuclear energy generation, research and/or development within weapons and defense, potentially environmentally negative resource extraction (such as rare-earth elements and fossil fuels), gambling or tobacco.

✓ Management of proceeds

Boliden will track the net proceeds from the issuances under this Framework using an internal spreadsheet where all amounts of arranged instruments will be logged. Boliden will ensure that the value of the green asset portfolio exceeds the value of outstanding green bonds for the whole duration of the bond. Furthermore, the company commits to allocate the net proceeds from issuances under the Framework within 12 months from issuance date, on a best-effort basis. The company will remove the projects that no longer meet the eligibility criteria from the green asset portfolio. Unallocated proceeds will be temporary managed according to Boliden's Group Finance Policy and held as cash.

✓ Reporting

Boliden commits to disclosing the allocation and impact of proceeds annually within its sustainable financing report, available on its website annually, until full allocation. The sustainable financing report will include information on the total amount of outstanding green bonds, a description of the green asset portfolio, amount of unallocated proceeds (if any). Boliden will also report on the expected environmental impact of eligible projects, along with the selection of qualitative and quantitative indicators used in the impact report. Boliden's annual allocation 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 Boliden's Green Finance Framework, we assess the framework as Medium green.

We expect the issuer will allocate most proceeds issued under the Framework to the "Energy efficiency" project category and specifically to refinance the expansion of the Odda smelter for low-carbon zinc production.

Activities that represent significant steps towards a low-carbon climate resilient future but will require further improvements to be long-term low-carbon climate resilient solutions.

Our Shades of Green Analytical Approach >

Green project categories

Energy efficiency

Assessment	Description
Medium green	Energy efficient activities, equipment, systems and related infrastructure in line with Boliden's roadmap to achieve its climate targets (reduce absolute scope 1 and 2 GHG emissions by 42% and absolute scope 3 GHG emissions by 30% from a 2021 base year) by 2030.

Analytical considerations

- Energy efficiency measures are necessary to transition to a low-carbon economy, but their climate benefits and risks vary. Exposure to climate risk arises, for example, when these activities take place in high emitting sectors such as metals and mining, or lock in high-energy processes or fossil fuel use. The fact the eligible activities support Boliden's 2030 climate strategy and targets, reinforces their contribution to reducing Boliden's GHG absolute emissions.
- We assess the project category as Medium green. Boliden expects the main investment under this will be the refinancing of the Odda smelter for low-carbon zinc production, which started operating in March 2025. Boliden's low-carbon zinc production, which emits less than 1.0 kg CO2e/kg, compared to a global average of 3.6 kg in the industry. The improved energy efficiency and use of renewable energy allows for increasing production while further reducing the carbon dioxide intensity of the zinc. Zinc can be used in a variety of ways, including some applications that play a role in a transition economy, such as providing rust protection to installations for wind and solar parks. This project category is also expected to comprise energy efficiency measures at other smelters and mines, which we view as Light green elements due to their associated carbon lock-in risks. The latter are expected to represent a minor part of allocated proceeds under this project category.
- The main source of emissions from the production of zinc at Boliden's Odda smelter are those released from raw materials being processed, while a smaller share come from the use of fossil fuels, used once a year for heating the roaster to start production processes. The processes used to extract metals, usually from ores or solutions, by using electricity (electrowinning) is energy intensive, underlining the importance of energy efficiency efforts and access to cleaner sources of energy. Electricity will be supplied from renewable energy, resulting from the agreement between Boliden and Statkraft. The contract includes deliveries of 1.6 TWh/year with a duration of 15 years.
- Eligible energy efficiency measures at Boliden's other smelters and mining operations include more efficient heat use in smelting and optimized mine design, for instance through improved ventilation in the case of underground mines. The reduction processes used at Boliden's other smelters rely on fossil fuels: Boliden currently uses coal when recycling steel mill

dust, coke when recycling spent lead acid batteries and coal when smelting Ni-slag in the nickel production. This reliance raises risks of carbon lock-in effects associated with the energy efficiency measures eligible under this project category. The company has also started replacing fossil-based reduction agents with biomaterials and transitioning to HVO fuels, but this replacement is in early stages.

- Boliden will assess and exclude any projects deemed to lock-in the use of fossil fuels. Carbon lock-in risks are assessed by the SFC, relying on the relevant expertise of its members. In the case of the Odda smelter, the issuer has shared that when assessing the eligible amount that could be financed under Framework, some investments were excluded because they were assessed as carrying too high lock-in risks.
- The issuer has shared that physical climate risks, including extreme heat, extreme cold, storms, flooding, drought and water stress, wildfires and landslides, are assessed for all eligible projects. Findings from the already conducted physical risk assessment, using scenario RCP 8.5, indicated the most significant risks would be water stress, drought and flooding, with the risks increasing toward 2030. The findings in the assessments on physical risks have been incorporated into various processes, such as permit application.

Pollution, prevention, and control

Assessment	Description
Medium to Light green	Pollution prevention: facilities and systems supporting pollution prevention such as discharges of pollutants into water and/or emissions to air. Waste management: facilities and systems, contributing to a resource efficient management of waste, including reduction recycling, recovery and reuse of waste.

Analytical considerations

- Waste management and pollution prevention measures can prevent harm to human health and local ecosystems from waste streams and pollutant discharges to water and emissions to the air. Waste prevention and reuse solutions are the preferred solutions under the waste management hierarchy because they have the lowest negative environmental impact among waste management options, followed by recycling, energy recovery, and finally disposal. This project category includes eligible pollution prevention and waste management activities, to be applied at Boliden's smelters and mines.
- The range of shades reflects the wide range of projects that could be eligible in this category, and the fact that some activities within this project category aim to ensure adherence to regulatory requirements while some are going beyond these requirements. An example of the latter is a research and development project to develop a low-carbon supplementary cementitious material product from iron containing residues from Boliden's smelters. The new technology process increases the recovery of valuable metals and can significantly reduce waste currently deposited to landfill. It can also help decarbonize other industries, in this case, construction materials. We also assess Boliden's investments in waste management as Medium green, as they aim to improve recycling rates, but rely on fossil-fuel powered equipment. On the other hand, other eligible projects such those linked to pollution prevention and which are required by regulation, would be assessed as Light green.
- This project category's assessment also considers Norway, Sweden, Finland, and Ireland's robust regulations on waste and wastewater management. The issuer is subject to regulatory requirements mainly via environmental permits that control the emissions it can release into water, hazardous sludge disposal, and reporting under the EU's Industrial Emissions Directive. We note the Norwegian Environment Agency identified two material deviations from the environmental permit for Boliden Odda zinc facility in 2024, relating to measures to limit water pollution from steel sheet piling and procedures for storage of hazardous waste. The issuer has followed up on these two issues. The agency is yet to formally approve Boliden's changes, but the issuer expects to address these deviations before the agency's deadline in June 2025.
- Any investments selected in this category will be assessed by Boliden's SFC to apply best available technologies and in line with Boliden's road map to 2030. While waste management processes can be energy intensive, we view Boliden use of renewable energy to power these processes and its effort to obtain energy from recovered waste heat positively. The

issuer has confirmed that any new fossil fuel infrastructure and new or expanded capacity of waste depository will not be eligible.

- Boliden manages supply chain level environmental risks through comprehensive policies and monitoring, as explained in the Issuer Sustainability Context and Energy efficiency sections above.
- Physical risks linked to this project category will be assessed and managed in line with the processes outlined under the Energy efficiency section.

Renewable energy

Assessment	Description
Medium green	Solar power
	Wind power
	Bioenergy

Analytical considerations

- Renewable energy projects such as solar photovoltaic (PV) and concentrated solar power (CSP), wind, green hydrogen, and bioenergy are key elements in limiting global warming to well-below 2ºC, provided their negative impacts on the local environment, and physical risks are sufficiently mitigated.
- We assign an overall shade of Medium green for this project category, reflecting the sustainability risks associated with bioenergy feedstocks and the lack of visibility regarding the expected allocated of proceeds to each type of renewable energy source. While we view solar and wind power as Dark green, eligible feedstocks for bioenergy, which need to in comply with the EU Renewable Energy Directive (RED), could include food crop feedstock. We view these as Light green, as they are associated with higher land use change risks than for example waste based feedstocks.
- Boliden has comprehensive policies to address biodiversity, including requirements for high-risk suppliers to support biodiversity conservation by minimizing adverse impacts and set targets to achieve net positive impact on biodiversity. However, the company has not specific requirements regarding certification of the feedstocks, or transportation consideration to minimize emissions.
- Within its environmental policy, Boliden commits to contribute to circular economy by minimizing waste and recycling of material, which also applies to the equipment being financed for solar and wind power, such as the wind turbines. Physical considerations for the fixed assets associated with solar and wind energy are assessed and managed as per the group level approach, where each unit evaluates their own weather-related operational risks and is responsible for conducting scenario analyses on the effects of the changing climate conditions in the relevant areas.

Clean transportation

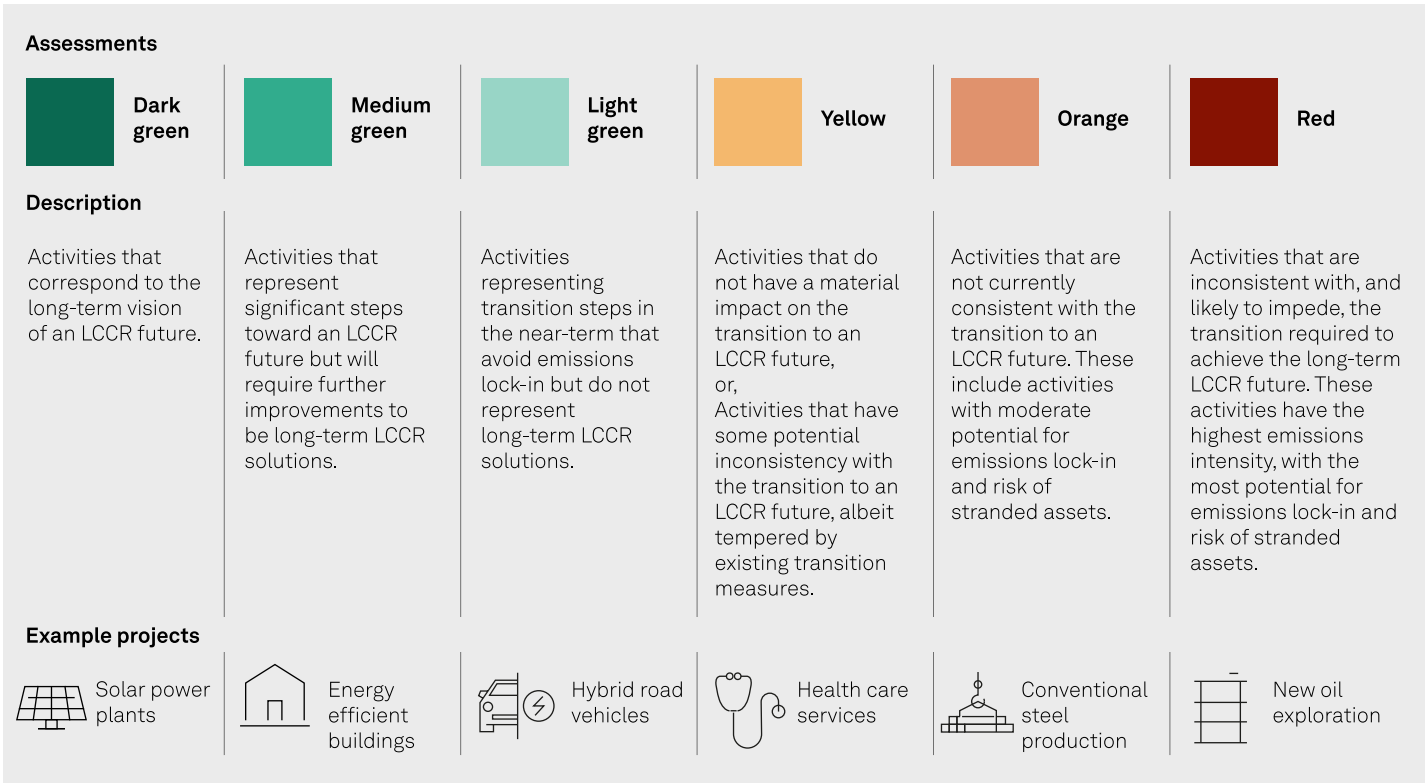
Assessment	Description
Dark green	Road transport and construction equipment with zero direct (tailpipe) CO2 emissions.
	Supported infrastructure for zero direct (tailpipe) CO2 emissions e.g. charging stations.

Analytical considerations

- Mitigating greenhouse gas emissions from equipment, logistics and transport will be crucial to meet global decarbonization goals, as the transport sector accounts for 23% of global energy-related greenhouse gas emissions. Fossil fuel powered vehicles and equipment also create air pollution, such as nitrogen oxides and sulphur oxides. Investments in this category would be spent on fully electric vehicles and equipment. An example is Boliden's pilot project at its Aitik mining site, in Sweden, which assesses the possibility of replacing elements of Aitik's transport system with electrified trucks.

- Supporting clean transportation infrastructure and equipment is an important enabler for the sector's decarbonization and we view these types of projects as Dark green.
- Since the reduction process for parts of Boliden's smelter operations currently depend on fossil fuel inputs (coke and coal), these investments in new electric equipment and infrastructure, and the conversion of the existing fleet to electricity only constitute a part of the solution to a full transition to low emission nonferrous metals production. Moreover, the issuer has confirmed that electric mining equipment is also eligible under this project category. While this electrification of equipment constitutes an important part of the solution to a complete transition to low emission mining operations, other climate risks and environmental challenges are associated with mining activities persist.

S&P Global Ratings' Shades of Green



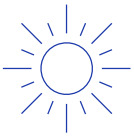
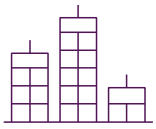
Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

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	
Energy efficiency	 **7. Affordable and clean energy***	 **9. Industry, innovation and infrastructure***
Pollution prevention & control	 **11. Sustainable cities and communities***	 **12. Responsible consumption and production***
Renewable Energy	 **7. Affordable and clean energy***	
Clean transportation	 **11. Sustainable cities and communities***	

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

Related Research

- Analytical Approach: Second Party Opinions: Use Of Proceeds, March 6, 2025
- FAQ: Applying Our Integrated Analytical Approach for Use-of-Proceeds Second Party Opinions, March 6, 2025
- Analytical Approach: Shades of Green Assessments, July 27, 2023

Analytical Contacts

Primary contact

Rita Ferreira
Madrid
+34 91 423 3216
Rita.ferreira
@spglobal.com

Secondary contacts

Luisina Berberian
Madrid
+ 34 91 788 7200
Luisina.berberian
@spglobal.com

Catherine Rothacker
Oslo
+47 941 57 987
Catherine.rothacker
@spglobal.com

Carina Waag
Oslo
+47 941 55478
Carina.waag
@spglobal.com

Research contributor

Aditya Padhy
Mumbai