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Second Party Opinion

Hinove Agrociência S.A.'s Green Financing Framework

June 4, 2025

Location: Brazil **Sector:** Agribusiness

Alignment Summary

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

- ✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)
- ✓ Green Loan Principles, LMA/LSTA/APLMA, 2025

See Alignment Assessment for more detail.

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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

Hinove Agrociência S.A. will use part of the proceeds to acquire waste products as an input for its fertilizer production, which brings circularity benefits. Hinove has innovatively repurposed waste from third-party phosphoric acid production as a raw material for phosphate fertilizer.

Low scope 1 and 2 intensity for its fertilizer production. Hinove has a Scope 1 and 2 emission intensity of 0.00074 tons of CO2e per ton of fertilizer produced, which is significantly lower than those of other regional fertilizers producers. The lower emissions come from the company's operations being close to the phosphate mine, which means there are no upstream transportation emissions. Additionally, Hinove uses biomass boilers, instead of natural gas fired boilers, and are self-sufficient in electricity through their onsite solar power.

Weaknesses

No weaknesses to report.

Areas to watch

Hinove does not measure its downstream exposure to physical climate risks. That said, this is consistent with the industry, given the commoditized nature of fertilizer markets and the nascent integration of climate risk into business strategy. However, according to the issuer, the company has seen more demand for its fertilizer from farmers facing extreme weather conditions in recent years.

The company is advancing on the quantificatin of its lifecycle emisisons from its boilers and Scope 3 emissions. That said, Scope 3 reporting is limited for the industry, as there are significant challenges in calculating on-field (agricultural) emissions due to the lack of end-user tracking systems in place. The largest sources of emissions from phosphate fertilizer result from mining, on-field (agricultural) emissions, and the transportation/delivery of fertilizer.

Shades Of Green Projects Assessment Summary

During the three years following issuance of the financing, Hinove expects to use all the proceeds toward expenses related to the production of fertilizer. Therefore, 100% of the proceeds will go into the categories of prevention and control of pollution, sustainable management of living and natural resources, and land use and products, production technologies, and processes adapted to the circular economy.

The issuer expects 95% of the proceeds to be allocated to refinancing projects, while the remaining 5% to finance new projects.

Based on the project categories shades of green detailed below, the expected allocation of proceeds, and consideration of environmental ambitions reflected in Hinove's Framework, we assess it as Medium green.

Renewable energy and energy efficiency	**Dark to Medium green**
Investments and expenditures related to the design, construction, improvement, development, installation, maintenance, and operation of electric power generating units.	
Pollution prevention and control	**Medium green**
Investments and expenditures related to purchasing green ammonia, filtration and treatment of gases generated in production, and fertilizer production in closed regime.	
Clean transportation	**Light green**
Investments and expenditures related to the purchase and maintenance of electric light vehicles (BEV) or plug-in hybrids (PHEV).	
Sustainable management of living and natural resources and land use	**Medium green**
Investments and expenditures related to the production, research, and development of fertilizer designed specifically for tropical soil that enhance soil productivity.	
Products, production technologies and processes adapted to the circular economy	**Medium green**
Investments and expenditures related to the production of fertilizer through closed regime, purchase of raw materials originated from industrial waste for the production of fertilizer.	
Sustainable water and wastewater management	**Medium green**
Investments and expenditures related to washing effluent treatment plants, and the use of reused water in production processes.	

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

Founded in 2011, Hinove is a Brazil-based company that produces phosphate fertilizer, which is derived from the phosphate rock. Phosphorus is crucial for energy transition in in farming, root development, flowering, and fruiting. Hinove mainly serves sugarcane producers in Brazil's midwestern and southern regions. The company produces annually over 1 million tons of fertilizer.

Material Sustainability Factors

Climate Transition Risk

The global agri-food system relies on fertilizer use to increase crop yields: 30%-50% of crop yields are attributable to commercial fertilizer nutrient inputs (source: Agronomy Journal). As most of the fertilizer production process depends on fossil fuels, with fertilizer production accounting for about 1.4% of emissions globally (source: Carbon Brief). Regulatory pressure to decarbonize chemical production, including fertilizer, is likely to grow and require investments in cleaner processes or more innovative feedstocks. Longer term, failure to curb emissions may lead to stranded assets.

Waste And Recycling

The sector’s management of waste and recycling often draws public attention. Accordingly, product life cycle management is becoming increasingly relevant. In the case of fertilizer manufacturing, reusing raw materials that are otherwise disposed of as waste can reduce the sector's dependency on scarce raw materials and energy-intensive production processes.

Pollution

Chemical manufacturing processes emit harmful air pollutants, while leakages and spills--particularly during production, transportation, use, and end-of-life--can have additional and widespread consequences for human health, natural capital, and biodiversity. Crop protection and fertilizer products can contaminate large areas of land, with the excess often washed away by rain, thereby polluting groundwater and waterways, and impairing the quality and availability of food and water, for instance.

Biodiversity And Resource Use

Chemical products can also impact biodiversity by polluting the air, soil, and water. This is especially true for agrichemicals. Chemical fertilizers, for example, affect soil fertility, weed density, and nutrient uptake, which in turn affects the composition of species and biodiversity. The fertilizer industry can have adverse impacts on biodiversity through promoting largescale monoculture for feedstock or by locating industrial complexes in sensitive ecological areas. Some policymakers are accelerating stringent regulatory measures to help assess and preserve natural capital, which may require changes as to how, where, and which materials are sourced.

Physical Climate Risk

Extreme weather events, including flooding, heatwaves, and hurricanes, can affect chemical production facilities and their supply chains. Flooding can disrupt power systems, which can lead to accidents (fires, explosions, contamination) following damage to structures and equipment. While the severity of physical risks varies by region, chronic risks such as changes in temperature and precipitation patterns, or acute risks such as flooding and heatwaves, need to be addressed during the design and construction phases of production plants, as well when planning emergency response mechanisms.

Issuer And Context Analysis

The proceeds of issuances made under the Framework aim to address the climate transition, and waste and pollution and biodiversity and resource use risks, which we view as key sustainability factors for Hinove. Physical climate risks are also relevant since Hinove's production units and value chain are exposed to climate change. Hinove indirectly includes climate adaptation financing in its Framework through the inclusion of water reuse projects within the sustainable water management category. Hinove is exposed to biodiversity loss risks linked to the application of its fertilizer and the potential for soil degradation due to the overuse.

Hinove's carbon footprint measurement is still in the nascent stage, and it has not set climate transition targets, although there is no emissions reduction sector standard for the fertilizer industry. The company has completed a Scope 1 and 2 greenhouse gas (GHG) emissions inventory for its unit in Rio Brilhante, Brazil. Hinove reported no Scope 2 emissions due to the asset's self-sufficiency in producing its own electricity through its solar power panels. We estimate that the issuer has zero Scope 2 emissions in its other units, since Hinove is self-sufficient in producing its own electricity through its solar power panels. The company is advancing on the GHG inventory of its other units. The main source of Hinove's scope 1 emissions comes from biomass incineration at its boiler, which is used to generate steam needed for fertilizer production.

Hinove has advanced waste and pollution risk management practices. Its units employ a closed-loop manufacturing process for producing granular solid or liquid fertilizer, achieving zero waste generation at the production stage. Gases produced during manufacturing are captured by fume hoods and directed to a gas scrubber, while wastewater is treated at the Liquid Effluent Treatment Plant and subsequently returned to the granulator for reuse. Additionally, bag filters have been installed throughout the facility to capture airborne particulate matter and at equipment outlets, with the collected material sent for separation and return to the granulator, minimizing the powder waste. Furthermore, Hinove has innovatively repurposed mining waste from phosphoric acid production that would be sent to tailings dam as a raw material for its fertilizer. Hinove has a take-or-pay contract with a phosphoric acid producer in Brazil, which represents around 50% of the mining waste generated by producer. This waste bought by Hinove is known as TQ. TQ then accounts for 40%-45% of the base of two of the main products manufactured and sold by Hinove: HiPhós 25 and HiPhós Tropical, the production of which is financed by the Framework.

Hinove has yet to develop downstream biodiversity loss and physical risk management. That said, the risk of downstream biodiversity loss is somewhat controlled, given the type of crop Hinove primarily sells—sugarcane. The planted area for sugarcane in Brazil has stabilized, and the industry is focusing on circularity—repurposing cane bagasse to expand ethanol production, rather than using new agricultural land. On the other hand, there is significant exposure of agriculture in Brazil to more intense droughts and floods. Hinove does not measure its downstream exposure to physical risks. However, according to the issuer, it has seen more demand for its fertilizer under extreme weather conditions.

Alignment Assessment

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

Alignment Summary

Aligned = ✓ Conceptually aligned = o Not aligned = ×

- ✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)
- ✓ Green Loan Principles, LMA/LSTA/APLMA, 2025

✓ Use of proceeds

We assess all the Framework's green project categories as having a green shade, and the issuer commits to allocating the net proceeds issued under the framework exclusively to eligible green projects. 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 company will disclose the proportion of financing versus refinancing in its allocation reporting. The look-back period is of 24 months.

✓ Process for project evaluation and selection

Hinove's Sustainability Board will be responsible for project evaluation and selection process. It will meet at least annually to screen and approve the proposed projects. Hinove's projects must adhere to the specific environmental, social, and governance (ESG) standards defined in its environmental and social policies. Such policies encompass the company’s procedures to identify and manage environmental and social risks. The Framework has an exclusion list, covering topics such as fossil fuel exploration, production, and distribution; activities that adversely affect indigenous lands; deforestation and forest degradation without proper legal authorization; and unlawful practices involving child and adolescent labor.

✓ Management of proceeds

The Framework outlines net proceeds will be monitored by the company through an internal process, which will keep a record of assigned eligible assets. All bond proceeds will be allocated within a three-year period from the issuance date. The issuer commits to replacing projects, which cease to comply with the Framework's eligibility criteria as soon as practicable. Pending allocation, net proceeds will be held in cash or other highly liquid and low-risk instruments, in accordance with the company's treasury policy.

✓ Reporting

Hinove commits to report annually on the allocation of the net proceeds and on the financed project's impact, until full allocation of the net proceeds and in case of material developments. Reporting will be available on the company's website. Allocation reporting will include the total amount of instruments outstanding, a brief description of the projects, and the breakdown of allocation of net proceeds by eligible category. The company will also report on the impact of the financed projects. Indicators include allocation of proceeds, but also expected environmental improvements, including but not limited to the total amount invested in R&D of new higher efficiency fertilizers and amount of fertilizers produced in closed regime (tons).

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 consideration of environmental ambitions reflected in Hinove's Green Financing Framework, we assess the framework 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 >

Green project categories

Renewable energy and Energy Efficiency

Assessment

Dark to Medium green

Description

Expenses, investments, and acquisitions related to the design, construction, improvement, development, installation, maintenance, and operation of electric power generating units:

- Solar photovoltaic;
- Run-of-the-river hydroelectric plants without an artificial reservoir, or hydropower plants that started their operations before 2020 and have a power density above 5 W/m² or a carbon footprint less than 100g CO2eq/kWh or 10 W/m² and 50g CO2eq/kWh, respectively; or
- Biomass thermoelectric plant.

Analytical considerations

- Renewable energy sources such as solar photovoltaics, wind, and hydroelectric power are key elements in limiting global warming to well below 2°C. Still, these projects may cause land use change and adversely affect local biodiversity and are exposed to physical risks. Bioenergy derived from sustainably produced feedstocks can provide a lower emissions alternative to fossil fuels and a decarbonization pathway, if electrification is not possible. At the same time, land use change and biodiversity risks related to feedstock production, transportation and processing emissions, and local pollution at combustion can undermine the climate and environmental benefits of bioenergy.
- We assign an overall Dark to Medium green for this category. Solar and hydropower plants financing are assigned Dark green, while biomass plants are Medium green.
- Hinove will refinance expenditures related to its three biomass plants located at each of its fertilizer production sites, which use eucalyptus wood chips as feedstock. The wood chips come from the company's eucalyptus plantations or from third parties (local pulp and paper companies). We understand that these eucalyptus plantations follow good practices, such as biodiversity loss mitigation and soil health improvement considerations and, in some cases, may be certified. In Hinove's Guará unit, the biomass is sourced from the company's eucalyptus plantations that was done to remediate soil that was contaminated by the former industries operating in the region.

- Hinove will only finance, with proceeds from emissions or loans made under this Framework, boilers with GHG emission intensity throughout the life cycle below 100 gCO2e/kWh, or a reduction of at least 80% in emissions over the life cycle, compared to fossil fuel emissions of 183 gCO2e/MJ, for electricity production. The company has completed a GHG inventory for its fertilizer production unit in Rio Brilhante, state of Mato Grosso do Sul, Brazil, which identified that the boiler is the main source of emissions for the unit. Hinove still needs to complete a life cycle emissions inventory of all its boilers. However, we believe that this financing contributes to the transition to lower-carbon fertilizer production. The biomass boilers prevent the use of natural gas boilers for the steam generation necessary for fertilizer production. They also repurpose waste from the pulp and paper industry.
- Hinove could also refinance expenditures related to its three photovoltaic plants located at each of its fertilizer production sites. Hinove is estimated to have achieved zero Scope 2 emissions at its fertilizer units (only Rio Brilhante has verified zero Scope 2 emissions) due to the company's self-sufficiency in producing its own electricity through solar power. We do not expect financing for hydropower but note that Hinove uses stringent criteria that mitigates climate and major biodiversity loss risks from such potential financing.
- Hinove has nascent physical risk considerations and has yet to conduct a climate risk and vulnerability assessment or formalize an adaptation plan for its fertilizer units. This consideration applies to all project categories listed below.

Pollution prevention and control

Assessment

Medium green

Description

Expenses, investments and acquisitions related to:

- Purchase green ammonia;
- Filtration and treatment of gases generated in the production of fertilizer; and
- Fertilizer production in closed regime.

Analytical considerations

- Pollution remediation projects have direct benefits to local biodiversity and human health by reducing air and soil pollutants concentration. The treatment and recovery of contaminated soil and polluted water help to address past environmental damage and set the stage for long-term ecosystem recovery.
- We assign a Medium green to Hinove's fertilizer production due to the circularity and waste avoidance (pollution prevention) benefits of the financed project. The rationale explained below is also applicable to the categories of sustainable management of living and natural resources, land use, and production technologies and processes adapted to the circular economy, as they all encompass Hinove's fertilizer production.
- Hinove will use the proceeds from its green bond to acquire TQ, a residue from the production of phosphoric acid (for beverages or fertilizer) from a Brazilian chemical company. If not utilized by Hinove, this residue would be stored in tailings dams. TQ accounts for 40%-45% of raw material costs for the two of the main products manufactured and sold by Hinove. Furthermore, Hinove's fertilizer production uses a closed loop system, which prevents Hinove from generating waste in its fertilizer plants. Therefore, Hinove's project has a double-edged benefit: it reduces waste generated upstream by reusing waste that would otherwise go to a tailings dam, and it does not generate waste in its operations.
- Regarding Hinove's carbon footprint, the issuer is estimated to have zero Scope 2 emissions due to electricity self-sufficiency from its solar PV assets. The main exposure to operational emissions arises from Hinove's use of biomass boilers to generate steam for fertilizer production. Hinove has a Scope 1 and 2 emission intensity of 0.00074 tons of CO2e per ton of fertilizer produced, which is significantly lower than those of other fertilizers producers. The issuer has not calculated its Scope 3 emissions exposure. Although there is no electrification plan for the boilers, Hinove's fertilizer production occurs in a closed system, avoiding the release of non-GHG air pollutants and allowing for water reuse during production. Downstream, Hinove does not monitor on-field emissions (emissions arising after the fertilizer is applied to agricultural fields) nor does it control the application method—fertilizer is typically applied via small ethanol or diesel fueled airplanes in Brazil. That said, the lack of downstream risk management is common for the industry and as a mitigant, sugarcane fields represent more than half of the issuer's sales volumes. We view sugarcane production in Brazil as a crop with a relatively lower climate footprint

compared to other crops in Brazil and other regions, given the widespread use of Renovabio (a regulated carbon cap-and-trade system for sugarcane processors) and Bonsucro sustainability certification.

- Hinove focuses on phosphorus-based fertilizers. While both nitrogen and phosphorus fertilizers are critical for plant growth, they are not interchangeable; both are used in conjunction in crop farming. However, nitrogen-based fertilizers are associated with higher GHG emission risks, primarily due to nitrous oxide emissions, whereas phosphorus-based fertilizers have lower direct GHG emissions. As other crops in Brazil, sugarcane production faces a significant challenge due to the low levels of phosphorus (P) in Brazilian soil. Brazil has limited reserves of phosphate rock that can be mined, and the quality of these reserves is relatively low. As a result, the agriculture sector relies heavily on imported fertilizers, accounting for 60% of its total consumption, according to National Association for Fertilizer Diffusion (ANDA). For phosphate fertilizers, this is even higher, up to an 85% share of imports. Hinove's fertilizers do not depend on imported raw materials, which provides a lower upstream carbon footprint for Hinove.
- Hinove provided information on the superior agronomic efficiency of its phosphate fertilizers compared to import-dependent fertilizers. According to the issuer, its fertilizer has a gradual release, which likely results in a lower likelihood of soil and water contamination by the fertilizer, as the product is not leached away easily.
- We have limited visibility regarding the upstream management of the phosphate mine that serves the company's operations. We understand that the supplier meets regulatory standards for such issues. However, phosphate mining entails significant climate emissions from the machinery used in extraction and refining, as well as biodiversity loss risk. Despite the limited mining practice's visibility, which introduces climate and environmental risks to the financed projects, we view the pollution risk prevention and circularity benefits from Hinove's use of TQ as contributing to the production of a fertilizer with a lower environmental risk, which supports the Medium green shade.
- The eventual use of green ammonia, listed under the category, would be to produce Hinove's nitrogenous fertilizer. The company is still evaluating potential suppliers, given the nascent development stage of green ammonia in Brazil. Anhydrous ammonia is used mostly as input for fertilizer production, while to a lesser extent, for industrial processes including plastic and synthetic fiber manufacturing. Green anhydrous ammonia contributes to a low-carbon, climate-resilient future by helping industries to reduce their carbon footprint linked to this key input. We view the activities linked to green hydrogen and green anhydrous ammonia production as Dark green within the eligible project category. However, given the limited use of proceeds, such project does not affect the overall Medium green shade for the category.
- Hinove does not monitor the exposure of its assets or its crop farming clients (or broader value chain) to physical climate risks nor pollution and biodiversity loss risk from fertilizer misuse or over application.

Clean transportation

Assessment	Description
Light green	Expenses, investments, and acquisitions related to: • Purchase and maintenance of BEV or PHEV.

Analytical considerations

- Mitigating GHG emissions from transportation will be crucial to meet global decarbonization goals, as the transport sector accounts for 23% of global energy-related greenhouse gas emissions, according to the Intergovernmental Panel on Climate Change (IPCC). Fossil fuel powered vehicles and vessels also create air pollution, such as nitrogen oxides and sulfur oxides. Electric road transport is key to decarbonizing land transportation. The use of biofuels and synthetic fuels may also contribute to lower emissions, as long as climate and environmental risks such as feedstock sourcing, direct and indirect land use change, and energy intensity of production are effectively mitigated.
- We assign an overall Light green shade to the project category. The electric vehicle (EV) portion of the financing is assigned a Dark green shade. However, the category receives a Light green shade given the expectation that most, if not all proceeds, will be used for the acquisition of hybrid vehicles, which we view as technology that supports a near-term but not full transition to a low carbon economy.
- Brazil has vast biofuel availability and infrastructure. However, EV production and charging infrastructure is nascent and scarce and there is a low availability of the processed minerals needed for EVs. Such conditions support the use of hybrid passenger cars, light commercial vehicles, and trucks as a near-term solution for the country's transition to a low-carbon economy. Unlike developed countries' NDCs, which have committed to ending their production of combustion vehicles, Brazil's NDC supports the use of more sustainable biofuels, such as second-generation ethanol. A disruptive transition to EVs could bring significant obsolescence risk to the Brazilian biofuel industry.
- The vehicles that Hinove intends to finance fall into category A of the Brazilian Vehicle Labeling Program (PBEV). Category A represents vehicles that have an energy consumption (megajoule per kilometer traveled) that is better than the average.

Sustainable management of living and natural resources and land use

Assessment	Description
Medium green	Production, research and development of fertilizer designed specifically for tropical soil that enhances soil productivity (i.e. HiPhós 25 and HiPhós Tropical).

Analytical considerations

- Agricultural practices that reduce climate emissions from crop farming and enhance soil health, water quality, and ecosystem integrity are crucial for a low-carbon, climate-resilient future. Sustainable inputs and farming practices, as well as a shift to more plant-based and lower-emission protein sources, contribute to a green transition for this sector.
- Please refer to the Pollution Prevention and Control category for the Medium green shade rationale for Hinove's fertilizer production.

Products, production technologies and processes adapted to the circular economy

Assessment

Medium green

Description

Expenses, investments, and acquisitions related to:

- Production of phosphate fertilizer through closed regime;
- Purchase of raw materials originated from industrial waste to produce fertilizer (i.e. purchase of TQ manufactured from the tailings of the production of phosphoric acid); and
- Purchase of sludge and solid waste from water treatment plants to produce fertilizer.

Analytical considerations

- The sourcing of materials and energy use related to the production of goods, and their final disposal, is estimated to account for two-thirds of global GHG emissions, in addition to having other negative environmental impacts, such as land and water pollution. Goods produced in energy-efficient ways that also seek to limit resource use, can contribute to significant emissions savings.
- Please refer to the Pollution Prevention and Control category for the Medium green shade rationale for Hinove's fertilizer production.
- The company could eventually use sludge and solid waste from water treatment plants to produce nitrogenous fertilizer, but still does not envision any significant production. We view sewage recovery projects as Dark green. However, given the limited use of proceeds for research and development, such project does not affect the overall Medium green shade for the category.

Sustainable water and wastewater management

Assessment

Medium green

Description

Expenses, investments, and acquisitions related to:

- Effluent treatment plants; and
- Use of reused water in production processes.

Analytical considerations

- Wastewater systems reduce pollution, enable resource recovery, and enhance ecosystem and public health. As a result, they are a key component of a low-carbon, climate-resilient future. The primary benefits they provide include improving water quality, which has important cumulative effects on a watershed; relieving water stress; and, depending on the system, provide a source of nutrient and energy recovery. However, these systems are energy-intensive and, if not sufficiently managed, can produce significant solid waste and methane emissions.
- Hinove will refinance expenditures related to the cleaning of its fertilizer production units. The company reuses almost all the water from its fertilizer production process. Wastewater is sent to an effluent treatment station, where it is treated and subsequently returned to the fertilizer granulator as reused water. We view the overall project category as Medium green.
- Hinove could also refinance the biodigester system with an anaerobic filter for sewage treatment at its Registro unit. The sludge (a byproduct of the treatment) is discarded every six months in accordance with regulation). Biogas is continuously released through the installation of a pipeline at the gas collection outlet. We view the subproject as Medium green, given that the biodigester system was installed by the issuer in the absence of wastewater collection infrastructure in the region.

S&P Global Ratings' Shades of Green

Assessments	Dark green	Medium green	Light green	Yellow	Orange	Red
Description	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.
Example projects	Solar power plants	Energy efficient buildings	Hybrid road vehicles	Health care services	Conventional steel production	New oil exploration

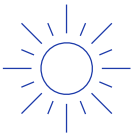
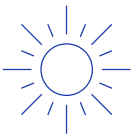
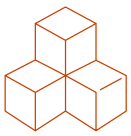
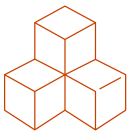
Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

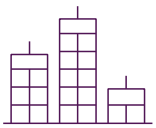
LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate 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
Renewable Energy and Energy Efficiency	 **7. Affordable and clean energy***  **13. Climate action**
Pollution Prevention and Control	 **11. Sustainable cities and communities***  **12. Responsible consumption and production***  **13. Climate action**
Clean Transportation	 **7. Affordable and clean energy**  **9. Industry, innovation and infrastructure**
Products, production technologies and processes adapted to the circular economy	 **9. Industry, innovation and infrastructure**

Sustainable water and wastewater management			
	6. Clean water and sanitation*	**11. Sustainable cities and communities***	**14. Life below water**

Related Research

- Analytical Approach: Second Party Opinions, March 6, 2025
- FAQ: Applying Our Integrated Analytical Approach For Second Party Opinions, March 6, 2025
- Analytical Approach: Shades Of Green Assessments, July 27, 2023
- Analytical Approach: European Green Bond External Reviews, Oct. 31, 2024
- FAQ: Applying Our Analytical Approach For European Green Bond External Reviews, Oct. 31, 2024

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