°CICERO Shades of Green

NCC
Green Financing Second Opinion

10 June 2022

Executive Summary

NCC is a construction, property development, and asphalt and stone material production company. With sales of SEK 53 billion in 2021, NCC is publicly traded and operates in Sweden, Norway, Denmark, and Finland.

NCC seeks to finance or refinance certified green buildings, equipment for asphalt recycling, conversion of asphalt plants to biofuels, electrification of stone crushing equipment, biodiversity preservation projects, and machine sand production as an alternative to natural sand extraction. Some of the eligible activities, such as replacing fossil fuels and reducing natural sand extraction, represent steps towards a low-carbon future, while others, mainly asphalt recycling, are more fully aligned with the long-term perspective. Eligible green buildings represent varying environmental ambitions. Updates since previous frameworks in 2021 and 2019 include the addition of the environmentally sustainable management of living natural resources and land use category, new green building certification standards, and the waste management category focus on asphalt recycling.

We rate the framework **CICERO Medium Green** and give it a governance score of **Excellent**. While there is no predetermined allocation of proceeds, green building, shaded Light to Medium Green, is expected to be the largest category. NCC has further strengthened its climate targets, implementation plans, and disclosures while maintaining clear selection processes and allocation and impact reporting.

SHADES OF GREEN

°CICERO Medium Green

GOVERNANCE ASSESSMENT

GREEN BOND AND LOAN PRINCIPLES

Based on this review, this framework is found in alignment with the principles.

Key Strengths

NCC's climate targets and disclosures, climate risk screening, products such as permeable pavement and flood and coastal protection supporting adaptation, and asphalt recycling efforts are all strengths. The company's ambition to be climate neutral by 2045, supported by new interim targets and disclosures across its value chain, is positive, particularly given the challenges of decarbonizing construction, asphalt production, and quarrying. NCC's consideration of physical climate risk during project screening and design processes, as well as its climate adaptation solutions and technologies for its clients, are important contributions. Because it is a difficult to abate process, the improvements in asphalt production and recycling that NCC is undertaking to halve emissions intensity by 2030 and achieve carbon neutrality by 2045 are key to reaching the well-below 2ºC target despite potential lock in risks and remaining emissions.

Key Pitfalls

Pitfalls include the difficulty of delinking fossil fuels from asphalt production and end use, green buildings with energy performance potentially not exceeding regulation, fossil fuel components of larger processes eligible under the framework, and limited quantitative biodiversity impact thresholds. While reducing emissions from asphalt production is a strength as noted above, this process continues to be mainly based on fossil

fuels and is energy-intensive. While beyond the issuer's direct control, the end use of asphalt as a way to expand road infrastructure may also contribute to transportation emissions from vehicles powered by fossil fuels. These pitfalls are mitigated to some extent by NCC's activities to reduce emissions from asphalt generation, exploration of bio-resin alternatives to fossil fuel bitumen as an asphalt component, and the general shift towards electric vehicles and biofuels in its Nordic operating context.

Green building certification standards cover a broad set of issues, but without additional criteria do not necessarily guarantee improvements in energy performance. The absence of additional energy thresholds for new buildings outside of Sweden and renovation of existing buildings that only comply with applicable requirements create a pitfall that these buildings may not go beyond regulation. According to the issuer, certification combined with their policies should create more strict energy criteria than national legislation. We encourage NCC to consider quantitative energy performance criteria for all its green buildings to ensure this.

Fossil fuels are components of broader processes that are eligible under the framework, creating potential lock in risks. These processes include asphalt production, stone crushing, and machine sand production, as well as machine sand end use in emissions-intensive cement production. NCC's energy efficiency measures, substitutions of renewable energy sources, and ambitious climate targets are all mitigating factors, and we encourage the issuer to continue to strengthen these efforts.

Finally, while the biodiversity preservation and restoration measures under the framework are positive, NCC has not yet developed quantitative baselines or performance metrics for the project selection process or impact reporting. We encourage the issuer to continue its efforts to develop these indicators to ensure that activities create net biodiversity benefits that go beyond regulatory requirements.

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1 NCC's environmental management and green financing framework

Company description

NCC is a publicly traded construction, property development, and asphalt and stone material production company. Operating in Sweden, Norway, Denmark, and Finland, NCC had sales of SEK 53 billion and around 13,000 employees in 2021.

The group is divided into five business areas. NCC Building Sweden and Building Nordics focus on the construction and refurbishment of housing, offices, and public and commercial facilities. NCC Infrastructure provides design, construction, and service support to diverse infrastructure projects. NCC Industry is responsible for projects related to roads, including stone material and asphalt production and paving. NCC Property Development develops and sells office, public, commercial, and logistics properties.

The company previously published green financing frameworks in 2019 and 2021, with 95% of proceeds allocated to eligible green buildings projects and the remaining 5% allocated to asphalt plants and quarries. As of the end of 2021, refinancing and activated eligible green assets totalled SEK 1.682 billion.

Governance assessment

NCC's climate and environmental policies are strong. Its commitment to achieve carbon neutrality by 2045 is comprehensive across its value chain and supported by interim targets for its own operations and Scope 3 priorities. Implementation measures and management processes to achieve these goals are clear. To mitigate physical climate risks, the company undertakes scenario analysis and reports in accordance with the recommendations of the Taskforce on Climate-Related Financial Disclosures (TCFD). NCC provides annual public reporting, now with further details on its Scope 3 performance in an update from previous issuances.

The selection process under the framework is robust and includes environmental competence with veto power. NCC considers climate risks and resilience in the project screening process, though this may not extend to relevant supply chains.

Allocation and impact reporting is publicly available, and the former is third party verified. While indicators included in the framework are relatively broad, the issuer shared additional detail on methodologies and metrics demonstrating consideration of relevant impacts across project categories.

The overall assessment of NCC's governance structure and processes gives it a rating of **Excellent.**

Sector risk exposure

Physical climate risks. More frequent and extreme weather events, such as the increase in heavy precipitation and flooding that is expected in Northern Europe, can significantly impact real estate and infrastructure assets. Sea level rise in low-lying coastal areas and landslides particularly in mountainous regions are expected to increase, further potentially impacting properties, roads, and other infrastructure in those areas. Construction material supply chains may also be impacted by increasingly frequent disruptions from extreme weather events.

Transition risks. Due to the profound changes needed to limit global warming to well-below 2ºC, transition risk affects all sectors. A higher cost of carbon could increase building operating and asphalt production costs, and stricter energy efficiency policies could necessitate costly building refurbishments. Growing consumer demand for improved energy efficiency or public transportation access may also impact the long-term value of buildings. Insurance premiums may increase for buildings exposed to increasingly frequent extreme weather events.

Environmental risks. Real estate development can significantly impact the environment, particularly through local pollution and ecosystem conversion or degradation during the construction process. Stone quarrying creates local environmental risks, such as habitat destruction and landscape alteration, water and air pollution from sedimentation, dust, and potential chemical spills, noise and vibrations that can disturb wildlife, and waste production. Sand mining in concrete supply chains without sufficient environmental safeguards may lead to riverbed and coastal erosion, degrade wetlands and fisheries, and alter local hydrology and water quality.

Environmental strategies and policies

NCC has set a goal of becoming climate neutral across its value chain by 2045. By 2030, the company has committed to reducing its operational emissions intensity (i.e., Scopes 1 and 2 emissions measured in tons of carbon dioxide equivalent, or CO_2e, per million SEK) by 60% relative to a 2015 baseline. As of 2021, NCC's operational emissions intensity was 3.5 tons CO_2e per SEK M, a 41% reduction compared to 2015, and total Scopes 1 and 2 emissions were 185,000 tons CO_2e.

As an interim target for its Scope 3 impacts, NCC has also set a goal of reducing its concrete, asphalt, steel, and transportation value chain emissions intensities (i.e., CO_2e per purchased volume) by 50% by 2030 compared to 2015. In 2021, Scope 3 emissions intensity by purchased volume was around 300 kg CO_2e per m^3 from concrete, over 20 kg CO_2e per ton asphalt, and just below 600 kg CO_2e per ton steel. This reporting on Scope 3 emissions is an update from previous climate disclosures. In a new addition to its climate goals since previous issuances, NCC has also committed to reducing its Property Development business area Scope 3 emissions per square meter produced building area, also by 50% by 2030 compared to 2015.

Implementation measures to achieve these goals include auditing energy use to identify reduction opportunities, increasing the energy efficiency of processes and production, and replacing fossil energy sources with renewable power, particularly at asphalt plants. NCC's fossil fuel-based electricity in kilowatt-hours (kWh) has declined 93% and its use of fossil fuels by volume dropped 27% since 2015. NCC has a goal of purchasing only renewable electricity, with its current share at 95% as of 2021.

NCC ensures the buildings it develops achieve minimum environmental certifications, including BREEAM Excellent, DNGB Gold, Nordic Swan, and Miljöbyggnad Silver depending on the country and segment. The company also undertakes an internal Sustainable Site certification process, which entails meeting a checklist of sustainability requirements at all company project worksites.

All of NCC's Swedish asphalt plants and one of its Norwegian facilities have been converted to wood pellet biofuels sourced from Swedish sawmill residues, and additional conversions to bioenergy are planned. NCC has reduced asphalt plant starts and stops and increased asphalt recycling to conserve energy. The company is exploring bio-resin alternatives to fossil bitumen as an asphalt component.

NCC is developing Scope 3 roadmaps for its value chain emissions reduction priorities. In 2021, it identified these opportunities for concrete and is working on transportation in 2022, with asphalt and steel forthcoming. The company is material neutral, meaning it is not pursuing a sustainability strategy specific to one type of construction material. NCC is also increasing coverage of third-party verified Environmental Product Declarations (EPDs) to meet customer requirements and provide transparency on lifecycle environmental impacts of materials it produces and in its supply chains. To achieve its new Scope 3 goal, NCC Property Development is increasing energy efficiency and renewable energy use in project design as well as monitoring the energy performance of its projects once constructed.

The company analyses climate-related risks and reports according to the recommendations of TCFD. As a new step in 2021, NCC's business areas were each evaluated for climate risks and opportunities on a 2030 and 2050 time horizon under 2°C and 4°C United Nations Intergovernmental Panel on Climate Change (IPCC) scenarios. Findings included the need to continue to reduce fossil fuel use through measures such as converting asphalt plants to renewable fuels as well as lower customer emissions, such as during building use. Beginning in 2022, climate risks will be integrated into the company's regular strategic risks process. NCC has incorporated climate adaptation into some of its product offerings, including drainage solutions like permeable pavement and flood and coastal protection. Physical risks from climate change are considered during project design so buildings and civil engineering projects will be resilient to future impacts.

Sustainability at NCC is managed by a sustainability manager in each business area, with oversight from the company's senior management team, CEO, and Board of Directors. NCC provides sustainability disclosures as part of the company's annual report in alignment with the Global Reporting Initiative (GRI) standard and in climate reporting to CDP each year.

Green financing framework

Based on this review, this framework is found to be in alignment with the Green Bond Principles and Green Loan Principles. For details on the issuer's framework, please refer to the green financing framework dated June 2022.

Use of proceeds

For a description of the framework's use of proceeds criteria, and an assessment of the categories' environmental benefits, please refer to section 2.

Selection

NCC's selection process will be managed by its Green Finance Committee (GFC). Members include representatives from the company's sustainability, treasury, and investor relations teams, who will meet at least once a year and take decisions on a consensus basis.

In addition to the framework criteria described below, the GFC will also assess potential projects based on alignment with the company's social and environmental policies and goals. The GFC will remove and replace projects that no longer meet the framework criteria from the pool of funded projects or assets.

Management of proceeds

Green financing proceeds are tracked by the issuer through crediting to an earmarked account to fund eligible projects. The company's treasury team manages this process.

Any unallocated proceeds will be held in NCC's liquidity reserves. According to the issuer, liquidity reserves can be invested in liquid Swedish government bonds, Swedish covered mortgage bonds, and short-term bank deposits with banks with sufficient credit ratings.

Reporting

NCC will publish a Green Financing Investor report on its website annually with disclosures on allocation and impacts under the framework. The company's Sustainability Reporting and Control unit will lead report development.

Allocation reporting will include a list of selected assets and amounts allocated, the breakdown of financing vs. refinancing, the types of financing securities used, and unallocated amounts. Allocation reporting will be verified by a third-party auditor to ensure alignment with the framework.

Impact reporting may be aggregated due to the small size of some eligible projects as well as confidentiality or competitiveness concerns. Where data collection is not possible, estimates will be provided on a best effort basis. Key performance indicators, where applicable, will include:

Category	Indicators	Additional information
Green building	• Environmental certification • Expected or actual environmental impacts from eligible projects when relevant and feasible	• The issuer informs us it plans to report on emissions reductions, energy savings, and waste amounts and management
Waste management	• Recycled waste	• According to the issuer, this will be measured as the percentage of reclaimed asphalt relative to total asphalt
Renewable energy	• Number of converted projects and expected or actual environmental impacts from eligible projects when relevant and feasible	• The issuer tells us environmental impacts will likely be measured in terms of Scopes 1 and 2 emissions per produced ton of asphalt or mobile-crushed aggregates and Scopes 1 and 2

		emissions per MWh electricity used in asphalt or mobile-crushed aggregates production
Environmentally sustainable management of living natural resources and land use	• Preservation and restoration of biodiversity and sustainable ecosystems: Each investor report will include at least one example – where applicable – of an environmentally sustainable management of living natural resources and land use investment that has been funded with green net proceeds. KPIs will not be disclosed beforehand in the framework • Maintaining biodiversity and delivering ecosystem services: Number of facilities to produce machine sand and expected or actual environmental impacts from eligible projects when relevant and feasible	

Table 1. Impact indicators for eligible project categories

NCC's past green financing reporting included allocation and impact details for its green building, asphalt plant, and crusher electrification project categories, and was externally verified.

2 Assessment of NCC's green financing framework

The eligible projects under NCC's green financing framework are shaded based on their environmental benefits and risks, based on the "Shades of Green" methodology.

Shading of eligible projects under the NCC's green financing framework

- Both financing and refinancing for capital expenditures and R&D, in whole or in part, will be eligible. The Green Finance Committee will assess the environment benefits of projects eligible for refinancing across their lifespans during the selection process, but there will not be a predetermined lookback period.
- There is no predetermined allocation of proceeds, but green building is expected to be the largest category.
- This framework is an update from previous issuances in 2019 and 2021 through the addition of the environmentally sustainable management of living natural resources and land use category, new green building certification standards, and waste management category focus on asphalt recycling. Previous allocations were 95% to the green buildings category, with the remaining 5% allocated to asphalt plants and quarries. Past issuances went primarily to refinancing and activated eligible green assets totalled SEK 1.68 million at the end of 2021.
- Nuclear power and fossil fuel-based energy generation projects are explicitly excluded.

Category	Eligible project types	Green Shading and considerations
Green Building 	Financing of new and existing commercial, residential and societal buildings • Construction of new buildings: Investments in development of building projects that have or will have a BREEAM Excellent, BREEAM Outstanding, Miljöbyggnad Silver, Svanen or DGNB Gold certification. Developments in Sweden will also have an energy use (PED) that is at least 20% lower than Swedish national regulation (BBR). • Renovation of existing buildings: Investments in renovation of building projects complying with applicable requirements for major renovations or alternatively leading to reduction of primary energy demand (PED) of at least 30%.	**Light to Medium Green** ✓ Green building certification standards cover a broad set of issues that are important to sustainable development. At the same time, they differ considerably in their requirements for energy efficiency, embodied emissions of construction materials, related transportation emissions, and consideration of resilience. ✓ The additions of the BREEAM Outstanding, Miljöbyggnad Silver, and Svanen certifications is an update from previous frameworks and a range of ambition for building performance. ✓ The issuer informs us that over 90% of projects under this category are expected to be new buildings. Around 80% of all projects will be located in Sweden where the 20% lower PED than BBR threshold will apply to new construction, which is positive.

- ✓ For the remaining estimated 20% of projects outside of Sweden, there is not an additional energy performance requirement for new buildings. This does not guarantee buildings in Denmark, Norway, and Finland will have energy performance that exceeds regulations.
- ✓ It is positive that there is an energy performance threshold of reducing PED by 30% for some building renovations. The option of alternatively complying with applicable requirements, an update from previous frameworks, may not result in energy performance improvements better than regulation. The issuer informs us that this is still likely to result in savings of at least 30% PED, particularly in the Swedish context, but depends on the nature of the renovation, building baseline energy performance, and local regulatory requirements.
- ✓ While there is no explicit exclusion of buildings with fossil fuel-based heating systems, the issuer tells us that its projects are generally connected to district heating that has no or very low use of fossil fuels, including plastic waste-to-energy. Past projects in Stockholm, for example, are heated by 98% renewable energy. While beyond the issuer's direct control, be aware of potential lock in risks in places where there may be a higher share of fossil fuels in the district heating energy mix.
- ✓ The issuer informs us that in addition to the framework criteria, it screens projects for physical climate risk as well as alignment with its overarching targets, including reducing embodied emissions of materials by 50%, creating less than 25 kg waste/m^2, and ensuring more than 75% of waste is recycled or reused by 2030.

Waste management 	Financing of waste prevention, waste reduction, recycling and reuse • Investments in equipment for the recycling of reclaimed asphalt (RA).	**Dark Green** ✓ Waste recycling strategies can create significant environmental benefits. ✓ Recycling asphalt reduces the heat required in the production process relative to new asphalt. No significant emissions arise from the recycling process. ✓ The issuer informs us that in the Nordic context, NCC's mixing of 26% reclaimed asphalt results in cradle-to-gate emissions savings of around 2.8 kg CO_2e per ton total asphalt produced. ✓ Some equipment relies on wood pellets or tall oil pitch, a biooil. Sweden requires sustainability declarations (hållbarhetsbesked) for these bioenergy sources that demonstrate compliance with the EU Renewable Energy Directive II and other applicable regulations, mitigating risks of direct and indirect land use change emissions from biofuel feedstock supply chains.[1] ✓ The issuer tells us that asphalt recycling equipment that relies on light fuel oil is not eligible under the framework as part of the overarching fossil fuel exclusion. Waste-to-energy projects are also excluded.
Renewable energy 	Financing of renewable energy technologies where renewable energy is used in processes for production of asphalt and stone material. • Renewable energy for asphalt production: Investments in conversion of asphalt plants from fossil to renewable fuels. • Renewable energy for stone crushing and other equipment: Investments in conversion of machinery and other equipment from fossil fuels to electricity.	**Medium Green** ✓ Greening asphalt production is essential to the low carbon transition. At the same time, the main component material in asphalt, bitumen, is a petroleum product, linking it to fossil fuel supply chains. The end use of asphalt for road construction can also be associated with high transportation emissions in places that have not yet decarbonized their vehicle fleets. This category therefore receives a Medium Green shading. ✓ The issuer informs us that wood pellets and tall oil pitch, a biooil, are the renewable fuels used for asphalt

[1] Hållbarhetsbesked, Energimyndigheten, 18 May 2022, https://www.energimyndigheten.se/fornybart/hallbarhetskriterier/hallbarhetslagen/hallbarhetsbesked/.

		production. As noted above, NCC's suppliers are required to have sustainability declarations (hållbarhetsbesked) for these bioenergy sources that demonstrate compliance with the EU Renewable Energy Directive and other applicable regulations, mitigating risks of land use change emissions. from biofuel feedstock supply chains. ✓ The issuer estimates that conversion to these bioenergy sources from light fuel oil results in cradle-to-gate emissions reductions of 47%, or 20.4 kg CO_2e per ton produced asphalt. ✓ Biofuel combustion can create local air pollution risks. ✓ Electrification of stone crushing and other equipment is a positive step towards the net zero future. The issuer informs us that the electricity used will be around 95% renewable overall, but some may come from grids with a lower renewable energy mix. ✓ Aspects of the stone crushing process not eligible under the framework due to the fossil fuel exclusion may involve some fossil fuel elements, such as the use of diesel for heavy machinery during stone mining. NCC is exploring diesel alternatives to reduce emissions such as hydrotreated vegetable oil (HVO, a biofuel) and electrification, but these measures have not yet been fully implemented.
Environmentally sustainable management of living natural resources and land use	Financing of protection and restoration to preserve biodiversity and sustainable ecosystems and related infrastructure. • Preservation and restoration of biodiversity and sustainable ecosystems: Investments in quarries and gravel pits to secure biodiversity and sustainable ecosystems to protect clean water, responsible use of natural resources and for species to thrive through initiatives such as creation	**Medium Green** ✓ The issuer notes that preservation and restoration projects will primarily be located in and around NCC gravel pits and quarries in the Nordics. Biodiversity conservation is important in these contexts due to the risks of ecosystem disturbance at these sites during resource extraction and the need for reclamation after decommissioning. ✓ Natural sand mining creates risks of riverbed and coastal erosion, wetlands

of conditions for endangered bird species, insects, amphibians or plants that require infertile soil or other special habitats to thrive and reproduce.

- Maintaining biodiversity and delivering ecosystem services: Investments in facilities to produce machine sand and phase out natural sand as a building material. Natural sand represents the second most exploited natural resource in the world after water and plays a strategic role in delivering ecosystem services and maintaining biodiversity.

and fishery degradation, and local hydrology and water quality alterations, making machine sand a generally positive alternative from an environmental and biodiversity perspective.

✓ At the same time, investors should be aware that machine sand production has its own biodiversity risks during quarry and gravel pit development and operation as well as climate emissions during production and transportation. The issuer tells us that cradle-to-gate emissions from machine sand are 1.9 kg CO_2e per ton.

✓ The issuer informs us that biodiversity projects are currently selected by the management team. Efforts are underway to formalize this process and develop impact metrics to support prioritization.

✓ According to the issuer, biodiversity projects are expected to go beyond regulatory requirements and create net biodiversity benefits, but there are not currently quantitative performance thresholds to ensure this. We encourage NCC to monitor and publicly disclose information about project impacts relative to credible baselines. This should be done in a quantitative manner where possible (i.e., beyond case study examples per current impact reporting plans).

✓ The issuer notes that NCC is involved in the project as long as it is present at the site. Local communities and key stakeholders such as nearby landowners are sometimes engaged depending on the project design, but this is not a requirement. Climate resilience may be considered depending on local conditions and projections.

✓ According to the issuer, investments in heavy machinery running on diesel that are part of machine sand production (e.g., dumpers) are not eligible under

	the framework due to the fossil fuel exclusion. As noted above, NCC is exploring diesel alternatives including biofuels and electrification. ✓ NCC promotes the use of machine sand to concrete manufacturers as an alternative to natural sand but does not produce concrete itself. Concrete production is a heavy emitting sector. While NCC has targets and implementation plans to reduce its own upstream emissions intensity from the concrete it purchases for its other business areas, this does not cover the downstream climate impacts of concrete production by others purchasing NCC's machine sand.

Table 2. Eligible project categories

3 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated June 2022**.** This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

'Shades of Green' methodology

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

Shading	Examples
Dark Green is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.	Solar power plants
Medium Green is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	Energy efficient buildings
Light Green is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	Hybrid road vehicles

The "Shades of Green" methodology considers the strengths, weaknesses and pitfalls of the project categories and their criteria. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised, including potential macro-level impacts of investment projects.

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

Assessment of alignment with Green Bond Principles

CICERO Green assesses alignment with the International Capital Markets' Association's (ICMA) Green Bond Principles. We review whether the framework is in line with the four core components of the GBP (use of proceeds, selection, management of proceeds and reporting). We assess whether project categories have clear environmental benefits with defined eligibility criteria. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed. The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Green places on the selection process. CICERO Green assesses whether net proceeds or an equivalent amount are tracked by the issuer in an appropriate manner and provides transparency on the intended types of temporary placement for unallocated proceeds. Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs.

Appendix 1:
Referenced Documents List

Document Number	Document Name	Description
1	NCC Green Finance Framework	NCC's green financing framework dated June 2022
2	Our Core is Construction: Annual Report 2021	NCC's annual report from 2021
3	Sustainability Policy	NCC's sustainability policy
4	CDP Climate Change 2021	NCC's 2021 reporting to CDP on its climate metrics
5	Green Bond Investor Report	NCC's allocation and impact reporting covering the period 1 October 2020-31 December 2021
6	NCC Sustainable Site	NCC's common sustainability foundation across worksites
7	NCC Kielo- Our Method to Enhance Biodiversity	NCC's description of its biodiversity preservation and restoration work at its quarry and gravel pit sites

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Appendix 2:
About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University, the International Institute for Sustainable Development (IISD) and the School for Environment and Sustainability (SEAS) at the University of Michigan.

Environmental Finance Bond Awards 2022 Winner
External assessment provider of the year

- **2020** External Assessment Provider Of The Year, Environmental Finance Green Bond Awards
- **2020** Largest External Review Provider In Number Of Deals, Climate Bonds Initiative Awards
- **2019** External Assessment Provider Of The Year, Environmental Finance Green Bond Awards
- **2019** Largest Green Bond SPO Provider, Climate Bonds Initiative Awards
- **2018** External Assessment Provider Of The Year, Environmental Finance Green Bond Awards
- **2018** Largest External Reviewer, Climate Bonds Initiative Awards
- **2017** Best External Assessment Provider, Environmental Finance Green Bond Awards
- **2016** Most Second Opinions, Climate Bonds Initiative Awards