Prime Concrete LLC
Green/Blue Bond Framework Second Opinion

26 May 2023

Executive Summary

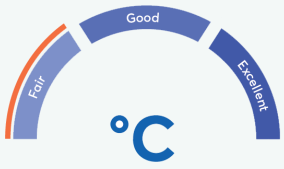
Prime Concrete LLC is a Georgian construction company that develops hydrotechnical and civil infrastructure, and manufactures construction materials. It operates three ready-mix concrete plants, a quarry, and a precast concrete and paving stone plant across Georgia. The company employs over 300 people and has an annual concrete production volume of 39,000 cubic metres (m^3), which mainly (80%) serves its own construction projects.

Proceeds under the framework can finance projects related to six eligible project categories, focused on reducing the emissions-intensiveness of its existing construction and concrete manufacturing activities and improving water resource use. The expected share of refinancing is 47%. The issuer expects to allocate 37% of proceeds to the production of precast concrete elements. Other use of proceeds include investing in the use of ground granulated blast-furnace slag (GGBS) in concrete production (13%), solar panel installations (7%), and investing in a more efficient diesel truck fleet for construction and delivery (7%). The issuer also plans to allocate 32% of proceeds to finance the design and construction of a wastewater treatment plant (WWTP) in Georgia, and the remaining 4% to a water and aggregate recycling system for its own operations.

SHADES OF GREEN

°CICERO Light Green

GOVERNANCE ASSESSMENT



GREEN BOND PRINCIPLES

Based on this review, this framework is found to be aligned with the principles.

We rate the framework **CICERO Light Green** and give it a governance score of **Fair.** The framework supports likely embodied emissions reductions from the use of precast concrete elements over those that are cast in-situ, using GGBS instead of ordinary Portland cement (OPC) in concrete production, and the water and aggregate recycling system. It also reflects water-related benefits from the WWTP construction and aforementioned recycling system. Whereas the issuer has documented emissions reductions from the GGBS-based concrete production with a life-cycle assessment, it has yet to carry out comprehensive emissions accounting or set formalised emissions targets. The issuer informed us that within one year after the bond issuance, it will publish a climate action strategy and company-wide emissions reduction targets. We consider this commitment important to the Light Green shading and encourage transparency on progress with systematic sustainability reporting in line with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations.

Strengths

While the environmental impact associated with construction and concrete production can be significant, it constitutes a strength that the issuer has the ambition to go beyond current practices in Georgia through its circular economy focus. The issuer expressed that a significant portion of GGBS is sourced from existing and substantial deposits generated by the Rustavi Metallurgical Plant since World War II, reducing embodied emissions from the use of OPC. It is welcome that the issuer commissioned a life cycle assessment to document the emissions reductions from replacing OPC with GGBS, which informs the expected impacts of the eligible

project. We encourage the issuer to follow up on its ambitions with more systematic assessments of life cycle impacts for its other initiatives.

Weaknesses

While the investment in a new truck fleet is expected to deliver short-term emissions reduction benefits, these are nonetheless fossil fuel-powered vehicles. We have considered this intended use of proceeds in the Georgian context. Even if such vehicles will deliver a 30% improvement in CO_2 emissions per tonne-kilometre and go beyond existing regulations by complying with Euro 5 standards, as shared by Prime Concrete, investors should be aware that these could lead to carbon lock-in or rebound effects, in particular if not followed up with stricter environmental screening when the company according to themselves will upgrade its fleet every fifth year. . We encourage Prime Concrete to pursue low-carbon alternatives as soon as feasible and investors to follow up closely with Prime Concrete on the publication of its climate action strategy and company-wide emissions targets.

Pitfalls

The sectors that Prime Concrete currently serves include some that may be associated with emissions-intensive activities, e.g. ports and marine infrastructure, as well as power transmission. As such, projects financed under the framework may indirectly contribute to support some emissions-intensive activities, notably shipping. According to the company, it does not otherwise serve the fossil fuel sector. but it is unclear how this will change in the future.

Although research provides evidence for emissions reduction benefits from replacing site in-situ concrete with precast concrete elements, the transportation of precast elements from fabrication to construction sites may involve additional emissions. Similarly, the overall benefits likely depend on the extent to which Prime Concrete uses GGBS-based cement vs OPC producing the precast elements. These risks are partially mitigated as the issuer has set a maximum threshold for the transportation distance to be limited to 60 kilometres, as well as a target to produce 30% of all concrete via precast methods by 2028. According to the company, precast elements also have ancillary benefits related to air pollution and waste.

GGBS is a byproduct of conventional iron production, which involves emissions-intensive and fossil fuel-dependent manufacturing process. Given the need for long-term transformation of iron production, this may create exposure to transition risks and may contribute to the lock-in of existing emissions-intensive technology. According to Prime Concrete, this risk is minimal as a significant portion of GGBS is sourced from existing and substantial deposits generated by the Rustavi Metallurgical Plant since World War II, with a smaller portion coming from ongoing production activities. Further, Prime Concrete shared that it has the flexibility to use other types of slag. The company also stated that sourcing GGBS from the plant prevents it from going to landfill, from a circular economy perspective.

Prime Concrete relies on the supply of raw materials that involve fossil-fuel intensive extraction and environmentally impactful mining processes. The issuer informed us that they will consider suppliers who have more established quality control and EHS risk management systems. Nevertheless, it is not explicit how sustainability criteria are being considered in the selection and screening of suppliers. Although we are informed that any non-compliance incidents may result in rejection or termination, there are limited public policies detailing the company's code of conduct with regards to supply chain management. The company is expecting to obtain ISO 14001 certification in June 2023, which may contain some relevant EHS policies.

Although the issuer expressed that sea level rise is taken into consideration for some project designs, it currently does not systematically assess climate risks. We encourage Prime Concrete to systematically assess and report the potential climate and environmental risks associated with its assets and supply chains.

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Company description

Prime Concrete LLC ("Prime Concrete" or "the issuer") is a privately-owned Georgian construction company founded in 2008. It specialises in developing hydro-technical and civil infrastructure and manufacturing construction materials. The company employs over 300 employees, with the majority 80% of its annual revenue of USD 10 million deriving from construction operations, and the remaining from the manufacture of construction materials. It maintains the construction and project management divisions to develop, design, and deliver solutions for construction projects, such as ports and terminals infrastructure, water and wastewater treatment infrastructure, roads, and industrial and public buildings. The production division manufactures aggregates to produce concrete and asphalt used for industrial, road, and port projects. The company sources cement mainly from Heidelberg Cement, a major Georgian cement supplier. It operates a stationary ready-mix concrete plant in Poti and two site plants, a quarry in Khobi, as well as a precast concrete and paving stone plant in Khobi. Prime Concrete had an annual concrete production of 39,000 m^3 in 2022, of which 80% serves its own construction projects, with the remaining one-fifth of the products being supplied to the ready-mixed concrete market.

Sector risk exposure

Physical climate risks. The Georgian manufacturing sector is exposed to physical impacts, such as rising temperature, heatwaves, accelerated sea level rise, flooding due to rapid retreat of glaciers, and droughts due to projected long-term reductions in the flow rates of rivers during springs and summers. The issuer is susceptible to physical climate impacts disrupting manufacturing facility, and the upstream and downstream value chains. More extreme weather will require further investments in strengthening new and existing infrastructure, which highlights the importance of nature-based solutions. Developing projects with climate resilience in mind is critical for this sector.

Transition risks. Due to the profound changes needed to limit global warming to well below 2ºC, transition risk affects all sectors. Georgia aims to cut total greenhouse gas emissions by 35% below the 1990 level by 2030 under the Paris Agreement. The issuer is exposed to stricter national regulations and climate policies, energy efficiency requirements, and changing market preferences. Greener construction materials and infrastructure will be needed in the transition to a low carbon and climate resilient future.

Environmental risks. Manufacturing and construction activities are at risks of polluting the local environment, from production of raw materials and disposal of waste. There are also risks related to degradation of nature and biodiversity, as well as water use and pollution in relation with quarries.

Social risks. The social risks in this industry are mainly related to corruption and human rights violations in the supply chain, including risks for violations of workers' rights. There are also considerable occupational health and safety risks associated with the manufacturing industry.

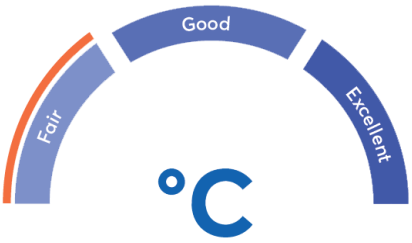
Governance assessment

Prime Concrete maintains a corporate policy that publicly informs its mission, vision, and goals relating to environmental and social matters. Nevertheless, it lacks a sustainability strategy beyond regulatory compliance and has not set climate targets to formalise its intention to contribute to Georgia's 2030 Climate Action Strategy. We welcome the company's expression of intent to develop a climate action strategy within a one-year timeframe after the bond issuance, which may improve the transparency around emissions and sustainability reporting, as well as disclosures of relevant climate targets.

The senior management has identified some emerging trends in the Georgian construction sector, such as demand for low-carbon materials in the supply chain, and stringency to obtain construction environmental permits. We welcome the issuer's use of environmental impact assessments in its due diligence process, adopting less carbon-intensive materials in constructions, and taking into consideration the sea level rise in its port project design. However, Prime Concrete has not systematically assessed physical and transition climate risks in alignment with the TCFD recommendations. Developing a protocol to evaluate climate risks beyond flood risk that include different climate scenarios should inform more comprehensive climate transition and resilience planning.

Project selection and evaluation procedures are established, with specific environmental expertise being involved. The company has a dedicated person responsible for overseeing environmental and social compliance matters encompassing its supply chain, who also sits in the Green/Blue Bond Committee (GBBC). The decision making is based on a simple majority vote casted in the GBBC, with no party holding veto power. While the issuer has undertaken life cycle assessments to evaluate the impacts of some projects in the financing framework, it is unclear whether these assessments are systematically integrated into the framework's eligibility criteria as part of the screening procedures. The issuer informed us that they maintain regular supplier engagement, including compliance inspection and reporting, and that any non-compliance incidents may result in rejection or termination.

The proposed reporting to investors provides annual allocation and impact reporting, both with third-party verification. The framework currently informs three impact indicators only. The issuer expressed that these three impact indicators will cover one or more project categories. Introducing impact indicators specific to each category of investment, and enhancing comprehensiveness, such as minimum impacts expected for each project (e.g. estimated scope 3 emissions and avoidance), would further strengthen its impact reporting.



The overall assessment of Prime Concrete's governance structure and processes gives it a rating of **Fair**.

Environmental Strategies and policies

Prime Concrete's direct climate impacts related to the manufacturing and delivery of concrete mix, which includes the raw materials extracted from quarries, processing, and transportation of products to customers. It is exposed to the upstream emissions from energy-intensive cement production, one of the main components to manufacture concrete. Similarly, the company is exposed to direct construction-related emissions for new development and infrastructure, and the embodied emission from construction materials.

The company began replacing OPC with the reuse of GGBS, a residual waste from the ferroalloy smelting process, to produce concrete mix in 2022. It engaged DG Consulting Limited, a third-party consultant, to conduct a life cycle assessment[1] in 2023 to understand the greenhouse gas emissions related to the concrete production and

[1] The quantification referenced the calculation methodology developed by the Environmental Protection Agency (EPA) and the United Nations (UN).

delivery operation cycle. In 2022, 47% of the concrete production was replaced adopting the new mix approach, which corresponded to reducing the use of 1,900 tonnes of OPC. The total emissions of 8,690 tCO^2e in the new mix approach represented a 13% decline (1,150 tCO2e) in comparison with the old mix approach. In a breakwater reconstruction project for Poti Port, APM Terminals, GGBS was used in the concrete mix to produce xBloc, which according to the company, is considered more durable to strong waves with less embodied carbon compared to OPC, a climate mitigation and adaptation approach. The company aims to expand the adoption of the GGBS, and targets to reduce up to 2,000 tCO^2e per year in its concrete manufacturing process in the future. Other initiatives include sustainable quarry operation, replacing the company fleet's machinery to enhance fuel efficiency, enhancing drivers' knowledge to operate machinery more efficiently, and reusing residual water and aggregates from its residual concrete recycling plant. However, the company has yet to quantify the GHG emissions and impacts from its various other sustainability initiatives.

In the framework, the issuer communicated its intention to contribute to the Paris Agreement and Georgia's 2030 Climate Change Strategy and 2021-2023 Action Plan, implemented by the Ministry of Environment Protection and Agriculture in 2020. Nevertheless, the company has yet to establish any processes in setting quantifiable climate targets. It currently does not disclose its sustainability performance and has limited publicly available sustainability policies. Although it has identified and incorporated sea level rise scenario in the design of a 100-year-lifespan port project, it does not systematically report climate-related risks and opportunities in accordance with globally adopted frameworks, such as the TCFD recommendations.

The company's Health, Safety and Environmental (HSE) Department is responsible for the design, implementation, and control of the HSE procedures for all operations and projects. It is currently under audit for compliance with ISO 14001 (environmental management systems) and ISO 45001 (occupational health and safety management systems), which are common management standards in the industry. In the sourcing of materials such as cement, steel, and fuel, the issuer informed us that sourcing priority will be given to the suppliers with more established risk management systems. Prime Concrete also maintains some internal risk monitoring practices, such as site visits, equipment inspections, and supplier engagement.

Green/blue bond framework

Based on this review, this framework is found to be aligned with the Green Bond Principles. For details on the issuer's framework, please refer to the green/blue bond framework dated May 2023. Whereas our assessment aims to point out contributions of the project categories to the blue economy, we have not assessed alignment of the framework against blue economy-specific principles, standards or guidelines.

Use of proceeds

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

Selection

The GGBC, comprising five representations from various functions, including environment, construction, finance, production, and project management, will screen, evaluate, and select eligible projects. The committee will meet and report directly to the board of directors on a quarterly basis, whereas the decisions made by the committee carry a simple majority vote. No party holds a veto power. In the screening and evaluation process, the committee will follow the project criteria in the framework and solicit expert advice to ensure project eligibility. The issuer stated that external expertise will be sought when deemed necessary by the HSE department, business partner and the committee.

As part of the project prerequisite to obtain a construction permit, the company informed us that environmental impact assessments are conducted in line with Georgian regulatory requirements. The process includes screening and identification of material environmental and social risks, and relevant management and mitigation measures. The committee will screen and approve projects that are considered to have positive long-term environmental impacts. It will also maintain a clear record of finances by reporting the expenditures related to the selected projects.

Prime Concrete expressed that they are taking into consideration the Sustainable Finance Taxonomy developed by the National Bank of Georgia and passed by the Georgian Parliament in August 2022 when drafting the framework. The company communicated that the project categories will align with some taxonomy categories, such as energy efficiency, waste management, sustainable water management, green buildings and construction, green production, pollution prevention & control, freight and cargo transportation, and smart transport systems. It is, however, less explicit how each eligible project has referenced and incorporated the criteria under these taxonomy categories. The framework could benefit from greater transparency around the potential positive impacts, including specifying the minimum thresholds in the eligibility criteria for all projects.

Management of proceeds

The company's finance department will use an established register to track, monitor and report the proceeds raised through the issuance to ensure traceability. It will also keep track of green projects which fulfill the eligibility criteria in the project category for financing and refinancing.

The finance department will determine the types of investments as eligible temporary investments, which may include low risk or short-term deposits, or may remain in current account until investment. According to the company, the investment criteria will be subject to the exclusion list defined by the International Finance Corporation (IFC). The company expects, rather than commits, to allocate all proceeds in 18 months.

Reporting

The issuer is committed to making publicly available the annual allocation and impact reporting (on a bond-by bond-basis) on its website until full allocation. The finance department is responsible for coordinating and preparing the allocation and impact reports and submitting to the GBBC's approval for publication.

The allocation report will include a list of financed projects with a description for each project and the total amount allocated to eligible projects, broken down by category. The issuer is committed to disclosing the proceeds that are used for refinancing and financing, and the balance of unallocated proceeds. The allocation reporting will be externally verified by a third-party auditor.

The company informed us that the impact report will include expected and actual impacts of the financed projects, accompanied by an external verification to the impact report. The calculation methodology used to quantify the expected and actual impact will also be made available in the report. It will reference the Global Reporting Initiatives (GRI) Standard 305-5, 302, and 303-3 in reporting three performance indicators - greenhouse gas emissions avoided in tCO2e, installed solar capacity in kW, and wastewater recycled in liters. The issuer informed us that some KPIs may relate to more than one eligible projects, for instance greenhouse gas emissions avoidance may cover the replacement of OPC with GGBS, precast concrete application, and trucks upgrade. The framework could benefit from enhanced transparency by specifying the correlation between each eligible project and the respective impact indicators the issuer intends to report.

2 Assessment of Prime Concrete's green/blue bond framework

The eligible projects under Prime Concrete's green/blue bond framework are shaded based on their environmental impacts and risks, based on the "Shades of Green" methodology.

Shading of eligible projects under Prime Concrete's green bond framework

- An amount equivalent to the net proceeds from Prime Concrete's green/blue financing instruments shall be used to finance or refinance green/blue eligible assets and comply with criteria detailed in the table below.
- Prime Concrete stated that the share of refinancing vs new financing will be 1:1. The total refinancing budget is up to USD 3.5 million. Look back period for refinancing is 5 years.
- Prime Concrete informed us that 37% of the proceeds are expected to be allocated to finance the development of precast concrete elements by using GGBS, for marine and general structural applications; 32% for the tendering, designing, and construction of WWTP; 13% for the investments in replacement of OPC with GGBS; 9% for the construction equipment maintenance facility; 4% to invest in water and aggregate recycling system; and 4% for the purchases of fleet for construction and delivery.
- The company expressed that both OpEx and CapEx are eligible. One should note that CapEx may include the purchase of fossil fuel powered trucks and part of OpEx may be spent on fossil fuel.
- Net proceeds will not be allocated to the activities with reference to the IFC exclusion criteria.

Category[2]	Eligible project types	Green Shading and considerations
Pollution prevention and control Circular economy adapted products, production technologies and processes	Replacement of Ordinary Portland Cement (OPC) with Ground Granulated Blast-furnace Slag (GGBS)	**Light to Medium Green** ✓ This category receives a Light to Medium Green shading, reflecting Prime Concrete's use of proceeds to source, store and use GBBS from existing deposits, as well as directly from ongoing fossil fuel and emissions-intensive iron and steel production processes. While both have circular economy and emissions reduction benefits, the latter may be associated with transition risks as it is not part of a longer-term 2050 solution. The

[2] Prime Concrete has mapped its eligible projects to multiple green project categories from the Green Bond Principles.

Energy efficiency	issuer was unable to provide the current and targeted split between GGBS from existing deposits versus ongoing iron and steel production.
Environmentally sustainable management of living natural resources and land use	✓ According to Prime Concrete, it expects to use proceeds to procure and process GGBS, as well as to construct additional silos for its storage. ✓ When used in concrete production, GGBS can reduce the amount of OPC used, thereby avoiding emissions from its emissions-intensive production process. According to the LCA commissioned by Prime Concrete, replacing 43% of its concrete in 2022 with cement containing GGBS led to emission savings of around 1,150 tCO_2e in 2022, or a 12% reduction from the status quo. The issuer anticipates that the ratio of GGBS mix to OPC mix will increase, and the GHG reduction could reach 1,678 tCO_2e per year in the future, or a reduction of around 18%. According to projections by Prime Concrete, its targeted use of GGBS will reduce the specific emissions per unit of concrete output from 243.5 $kgCO_2e/m^3$ in 2022 to 216 $kgCO_2e/m^3$ in 2027. ✓ Prime Concrete shared that it has an agreement to source the GGBS from the Rustavi Metallurgical Plant in Georgia. According to Prime Concrete, it expects to obtain the bulk of its GGBS from deposits in the ground generated by the Rustavi Metallurgical Plant, with a smaller portion coming from the plant's ongoing operations but is unable to specify the expected split between the two. ✓ While the use of GGBS offers short-term emissions reductions, note that GGBS is an industrial by-product obtained through the ferro-alloy production process, in which iron ore, limestone, and coke are heated to a temperature of about 1500°C in the furnace. This is a highly fossil fuel-dependent and emissions-intensive process that will need to be transformed

		in the low-carbon transition. Prime Concrete shared that it can use any type of slag, and hence is not concerned about the possibility that the plant switches from conventional blast furnace to electric arc furnace or other low-carbon technologies in the future. According to Prime Concrete, in the absence of the offtake agreement, the GGBS would most likely be sent to landfill or dumped. ✓ Although GGBS is considered to be waste, the offtake arrangement nonetheless links Prime Concrete to Rustiavi Metallurgical Plant's environmental impacts, as well as climate and environmental impacts in the supply chain for iron ore, which include air pollution, water pollution, and biodiversity loss. It is unclear whether Prime Concrete engages with or intends to engage with Rustavi Metallurgical Plant or other future suppliers of GGBS over their environmental impacts and supply chains. ✓ Prime Concrete informed us that it contracts with a grinding facility to ground the GGBS into useable form, and this process runs on electricity. According to IEA[3], about 80% of Georgia's electricity generation comes from hydropower, with the remainder produced from natural gas and wind.
Pollution prevention and control Circular economy adapted products, production technologies and processes Energy efficiency	Development of Environmentally Friendly Precast Concrete Elements by using GGBS, for Marine and General Structural Applications e.g. Xbloc, concrete pipes, precast piles etc.	**Light Green** ✓ The Light Green shading recognises that precast concrete elements have the potential to generate emissions reductions when replacing in-situ elements, while still depending to an extent on the use of conventional cement. ✓ According to Prime Concrete, proceeds will be used to refinance and invest in new precast production facilities to support its plan to gradually reduce

[3] https://www.iea.org/reports/georgia-energy-profile/overview

Environmentally sustainable management of living natural resources and land use 	the use of cast-in-situ elements. The company stated its target to produce 30% of all concrete via precasting within the next five years. ✓ Prime Concrete shared that construction using cast-in-situ concrete is Georgia's most widespread construction methodology. It means all materials, such as formwork, reinforcement, and fresh concrete, are delivered separately and assembled on-site. The alternative to cast-in-situ concrete structures is precast (prefabricated) concrete structures. Precast or prefabricated concrete structures are produced in a closed environment, such as buildings or roofed polygons. After fabrication, it is delivered and assembled on the sites. Precast elements can replace up to 80% of the building structures. ✓ One study shared by Prime Concrete found that construction using precast concrete produces 17% fewer GHG emissions than the construction of the same building with cast in-situ concrete, due to the reduced material needs.[4] A second study indicates that precasting can lead to a 10% reduction in emissions per cubic metre of concrete,[5] while a third finds that construction emissions are negatively correlated with increasing use of precast elements in construction.[6] ✓ According to Prime Concrete, precast concrete elements are generally made partly with recycled materials, more durable, more energy efficient, use a meager water-cement ratio, and generate less waste. Prime Concrete has not set thresholds on the amount of GGBS being used in the concrete mix. Prime Concrete has however not conducted an LCA to quantify the benefits of using precast elements in the context of its own operations.

[4] https://knowledgecenter.ubt-uni.net/cgi/viewcontent.cgi?article=3466&context=conference
[5] https://www.sciencedirect.com/science/article/abs/pii/S0950061815303615
[6] https://www.sciencedirect.com/science/article/pii/S0959652622040586

		✓ Construction sites can be distant from the precast fabrication site. The precast elements are usually heavy, which require specialised equipment for transportation and installation. Considerations to minimise these emissions should be made to optimise the benefits of using precast concrete elements. Prime Concrete informed us that it will limit the transportation distance for precast concrete elements to 60 kilometres. ✓ Prime Concrete clarified that Xbloc has applications in protecting shorelines against waves and currents and can also be used to create artificial reefs. This may present climate adaptation benefits, but the use of concrete may remain a less-preferred option compared to nature-based solutions.
Pollution prevention and control Clean transport Circular economy adapted products, production technologies and processes	Upgrading of Transport (Trucks)	**Light Green** ✓ The shading reflects the short-term emissions reduction benefits from investments in fuel efficient diesel trucks in the specific emerging market context of Georgia. Nonetheless, the emissions lock-in risks from these investments should be noted, which are somewhat mitigated by Prime Concrete's intention to upgrade its truck fleet every five years. ✓ Prime Concrete aims to finance the purchase of fuel-efficient diesel trucks that are compliant with Euro 5 emissions standards for general use in its operations. According to the company, these standards represent a significant improvement over current Georgian regulations, which do not regulate vehicular emissions other than carbon monoxide and soot. Note however that the Euro 5 standard does not directly regulate CO_2 emissions. ✓ According to Prime Concrete, the new fleet can achieve a 30% improvement in CO_2 emissions per tonne-kilometre compared to the old fleet as a result

		of better fuel efficiency and greater load capacity. However, they remain dependent on fossil fuels and constitute a short-term solution that may generate lock-in effects. Prime Concrete shared its plan to sell financed trucks after a useful lifespan of five years and replace them with modern trucks with higher efficiency, which partially mitigates the risks. ✓ Prime Concrete stated that Georgia has limited access to electric and low-emissions trucks compared to other Western economies. The company acknowledged biodiesel as a future alternative fuel but pointed out that it is not readily available yet in the Georgian market. We encourage the company to proactively develop partnerships and engage with suppliers to support the introduction of these options into the Georgian market.
Renewable Energy	Procurement and Installation of Solar Panels	**Medium Green** ✓ This category receives a Medium Green shading because the installation and production of renewable energy is a key element in the low carbon energy sector, but nonetheless supports operations in an emissions-intensive sector. ✓ Prime Concrete stated that the solar panels will be installed on individual buildings or assets. The company expects that the installed capacity of the solar panels will be 395 kW, with an expected generation capacity of 488,000 kWh per annum. ✓ One should note that the pollution and waste embodied in the manufacturing and decommissioning process of solar panels could be material environmental impacts in the value chain. Further information about the impact mitigation related to the financed projects in the context of Prime Concrete is unavailable.

Sustainable water and wastewater management Environmentally sustainable management of living natural resources and land use Circular economy adapted products, production technologies and processes	Recycling Water and Aggregates from the Production of Concrete	**Medium Green** ✓ This category receives a Medium Green shading, reflecting the importance of a more circular economy and improved water resource management to a low carbon and climate resilient future. The shading is impacted by the potential for Prime Concrete's concrete to be used for projects in some emissions-intensive sectors, e.g. ports and marine infrastructure and power transmission. ✓ According to Prime Concrete, proceeds will be used to invest in a water jet system for washing equipment and a system manufactured by BIBKO that reclaims aggregates and cementitious water for reuse in its concrete production process. ✓ According to the estimation by Prime Concrete, concrete production will increase from 38,716 m^3 in 2022 to 62,000 m^3 in 2027, and the total volume of fresh water required for the manufacturing process will also increase from 8,737 m^3 to 13,988 m^3. With the implementation of the residual concrete recycling system, the issuer estimated that water savings will be 15% in 2024 and 23% by 2027. ✓ Prime Concrete stated that the recycling system will reduce the demand for gravel and sand, thereby avoiding emissions and other environmental impacts associated with the extraction and transportation of these inputs. The technology also helps to diverts waste sent from the concrete plant to landfill. However, the company has not conducted an LCA and further information about the climate benefits of financed projects in the context of Prime Concrete is unavailable.

Sustainable water and wastewater management 	Developing and Offering Modern Wastewater Treatment Technologies for Georgian Market in Cooperation with Leading European Companies	**Medium Green** ✓ This category receives a Medium Green shading, reflecting the importance of improved water resource management to a low carbon and climate resilient future, as well as environmental benefits from the removal of organic materials, e.g. nitrogen and phosphor, from wastewater. The shading also reflects the possibility that fossil fuel equipment for the plant, e.g. pumps, can be financed under the framework, as well as uncertainty over the plant's energy efficiency or how Scope 3 emissions from the plant's construction and inputs, will be managed. ✓ Prime Concrete informed us that the majority of municipalities in Georgia do not have access to modern wastewater treatment systems. The company is currently contracted by the United Water Supply Company of Georgia to design & build the Martvili WWTP for 11 000 inhabitants, which is expected to be commissioned by August 2024. According to Prime Concrete, the country further plans to install >150 units of small-size systems (like Martvili), and >30 medium-size (>30 000 people) over the next 5-10 years. Prime Concrete expressed its plan to allocate funds towards the tendering, designing, and execution of the WWTP projects. ✓ Note that the production of chemicals for use in water and wastewater treatment can account for a substantial greenhouse gas footprint, meaning that reducing chemicals from the treatment process is essential to minimise the embodied carbon footprint from the supply chain. ✓ Wastewater treatment plants are linked to potential methane and nitrous oxide emissions from sludge, which need to be managed. Note that certain plant equipment, such as pumps, are likely to be fossil-fuel powered.

Table 1. Eligible project categories

3 Terms and methodology

This note provides CICERO Shades of Green's second opinion of the client's framework dated May 2023**.** 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 Shades of 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 Shades of 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 Shades of 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 Shades of 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 Shads of Green's assessment. CICERO Shades of 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 Shades of Green places on the selection process. CICERO Shades of 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	Prime Concrete Green/Blue Bond Framework	Document that outlines the use of proceeds, project selection, proceed management, and reporting procedures for Green/Blue Finance mechanisms issued by Prime Concrete.
2	Prime Concrete Company Profile	Document that outlines the business operations and activities engaged Prime Concrete
3	Estimation of Greenhouse gas emissions (GHG) related with operation of Prime Concrete in Georgia related with the Cementous product production and delivery to the client.	Life cycle assessment report that measures the greenhouse reduction of GGBS versus OPC achieved in 2022
4	Green & Blue Bond Use of Proceeds	Excel document provided by Prime Concrete that outlines the expected shares of proceeds allocated to each project category, and the expected shares of financing vs refinancing
5	Environmental Impact Assessment Report for New Sea Port of Poti – Berth 2 Construction Project	A sample EIA report to outline Prime Concrete's practices in identifying and managing environmental risks during project design stage

Appendix 3:
About CICERO Shades of Green

CICERO Shades of Green, now a part of S&P Global, provides independent, research-based second party opinions (SPOs) of green financing frameworks as well as climate risk and impact reporting reviews of companies. At the heart of all our SPOs is the multi-award-winning Shades of Green methodology, which assigns shadings to investments and activities to reflect the extent to which they contribute to the transition to a low carbon and climate resilient future.

CICERO Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Shades of 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 Shades of Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

- **2021 Largest External Reviewer,** Climate Bonds Initiative Awards
- **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