S&P Global Ratings

Powered by Shades of Green

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Second Party Opinion

Continuum Green Energy Ltd. Green Finance Framework

Aligned = 🗸

May 30, 2024

Strengths

Location: India

Sector: Utilities (generation)

Conceptually aligned = \mathbf{O}

Alignment With Principles

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

✔ Green Loan Principles, LMA/LSTA/APLMA, 2023

See Alignment Assessment for more detail.

All the proceeds will be used to finance

50% cumulative electric power installed

renewable energy projects in India, including

generation and storage. The projects help

with the country's target to achieve by 2030

capacity from non-fossil fuel-based energy

wind and solar photovoltaic (PV), adopt a

output from one of the energy sources.

holistic approach to reduce the risks of low

resources. The integrated plants, combining

Weaknesses

No weakness to report.

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

Our <u>Shades of Green</u> Analytical Approach >

Areas to watch

Not aligned = 🗙

The solar panel's supply chains can introduce social risks relating to working conditions. Continuum seeks to mitigate such risks through its Supplier Code of Conduct as a part of its supplier contract. Moreover, it largely sources panels locally.

Continuum is supplying renewable energy to clients that are exposed to physical and transition risks. This is because some consumers operate in energy intensive and heavy industries.

The framework includes the funding of publicly available access pathways within the projects' area. This could lead to increased traffic and carbon emissions.

Future project sites might include dry forested land, subject to government approval. Continuum seeks to mitigate such risks through afforestation measures.

Eligible Green Projects Assessment Summary

Eligible projects under issuer's green finance framework are assessed based on their environmental benefits and risks, using Shades of Green methodology.

Renewable energy	Dark green	
Wind farms and related support infrastructure		
Solar energy and related support infrastructure		
Wind-solar hybrid energy and related support infrastructure		
Energy storage		

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

Established in 2009, Continuum Green Energy Ltd. is a renewable energy group. It focuses on large-scale wind farms that can be co-located with solar PV installations in India.

Continuum's portfolio had an operational and nearly operational capacity of 2.3 gigawatt (GW), with another 1.7 GW under development in the fiscal year 2023 (ended March 31, 2023). The company generated 2,795 gigawatt-hour (GWh) of power during fiscal 2024.

Continuum's off-takers include commercial and industrial consumers (72%), utilities (23%), and sale on exchange (5%). Among commercial and industrial consumers, the company supplies renewable power to more than 190 consumers from diverse industries spanning chemical, auto, product, textiles, pharma etc.

Morgan Stanley Infrastructure Partners (MSIP), a long-term infrastructure investor, has 83% ownership interest in Continuum. The founders own the remaining shares. On May 11, 2024, the founders and MSIP executed a share purchase and subscription agreement, pursuant to which, at closing, the founders will own 74% and MSIP will own 26% of Continuum.

Material Sustainability Factors

Climate transition risk

Power generation is the largest direct source of greenhouse gas emissions globally, making the sector highly susceptible to the growing public, political, legal, and regulatory pressure to accelerate climate goals. Public awareness of the urgency for climate action has reached new highs. In turn, policymakers and regulators are pushing for faster transition to lower-carbon energy, especially as these technologies become more mature and cost competitive. Over the past decade, we have seen multibillion-dollar losses for most polluting assets, reflecting their weaker economics as taxes increase. They are being displaced by new, cleaner technologies. In addition, more stringent decarbonization rules may restrict polluting plants' license to operate. The

number of countries pledging to achieve net zero emissions over the coming decades continues to grow. With no direct emissions, renewable energy technologies have a vital role to play in reducing emissions associated with power and heat. These are crucial for limiting global temperature rise to 1.5°C. India aims to reduce the emissions intensity of its GDP by 45% by 2030, from the 2005 level. It also aims to achieve net zero by 2070, a comparatively long timeline.

Physical climate risk

Given fixed assets, power generators are more exposed to physical climate risks than companies in other sectors. For stakeholders, extreme weather events, including wildfires, hurricanes, and storms are becoming more frequent and severe, and can result in power outages. As water is often a significant resource for hydro, nuclear, and fossil-fuel based power plants, exposure to flooding, drought or warmer temperatures can also hit operations. These dynamics, coupled with regulatory pressure to preserve security of supply, are driving players to enhance the resilience of assets. The physical climate risks generally lead to significant financial losses for operators stemming from repairs, but more importantly from exposure to extreme spikes in power prices or claims due to business disruptions. We expect these dynamics to continue but vary regionally depending on regulatory responses. India is particularly exposed to wildfires, floods, storms, and rising sea levels (See Weather Warning: Assessing Countries' Vulnerability To Economic Losses From Physical Climate Risks, April 27, 2022).

Waste and pollution

End-of-life management—the dismantling, and recycling or processing of waste—exposes companies to financial, reputational, or litigation risks if it is not properly planned and provisioned. India is the third-largest generator of electrical and electronic waste (e-waste) with limited treatment capacity (i.e. one fourth of waste generated). This made the government rectify the 2016 electronic waste (e-waste) management rule in 2022. The new rule expands its scope of application (e.g., more forms of waste treatments such as refurbishing and dismantling) as well as e-waste (from 21 types to over 100 types).

Communities

The need for renewable power development related to climate goals intensifies the materiality for stakeholders. Moreover, sites with high renewable potential are often in or near communities, including indigenous groups. This can prompt strong local opposition. In India, land titles may be uncertain, in the absence of a centralized and digital registry. At the time of land acquisition or lease, this can raise complex issues around genuine ownership, land areas, encumbrances, or other third-party rights, such as right of passage.

Issuer And Context Analysis

The financing of renewable energy assets addresses climate transition risk and contributes to India's wider decarbonization goals. All the power produced from Continuum's projects is connected to the local grid and transmitted to the company's consumers. Physical risks are relevant for those projects, given the fixed location of the assets and India's exposure to climate-related events such as floods, cyclones, and drought. There are also some local risks related to biodiversity and communities, including in the supply chain.

Renewable energy is a cornerstone of India's decarbonization commitments, and Continuum's operations and growth contribute to it. As part of its updated 2022 Nationally Determined Contribution (NDC) submission to the United Nations Framework Convention on Climate Change (UNFCCC), the country commits to reduce the emissions intensity of its GDP by 45% by 2030, from 2005 levels. By the same year, India aims to achieve 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources.

Continuum's assets inherently reduce emissions by reducing the grid emissions factor in the regions where they are located. During fiscal 2024, Continuum reported avoided emissions of 2.6 million tons of CO₂, based on its generation of 2,795 GWh of renewable electricity. The company has also set decarbonization targets of 100% reduction or offset in Scope 1 and 2 emissions by fiscal 2027. Carbon offsets would be in the form of nature-based solutions, such as committing to plant 1,000 trees every year in and around project sites.

Projects are highly exposed to physical risks, and India is in the early stages of adaptation

planning. The country's NDC shows its commitment "to better adapt to climate change by enhancing investments in development programs in sectors vulnerable to climate change, particularly agriculture, water resources, the Himalayan region, coastal regions, health and disaster management". Seasonal and high temperatures may reduce the efficiency of wind turbines, with mixed effect on solar (reduced efficiency of PV system and increased solar irradiance). Continuum mainly relies on Environmental and Social Impact Assessments (ESIAs) to manage all projects' exposures to potential physical risks in their development and operational phase.

For example, for projects that are in regions prone to drought, the company is exploring mitigation measures such as solar module dry cleaning. Likewise, wind turbines have auto cut off options in case of high speed. Moreover, the foundation and structure design for the wind turbine generator and solar structure consider high wind speeds, to resist cyclones. Meanwhile, the company has yet to report according to the Task Force on Climate Related Financial Disclosures (TCFD).

The project's solar panels will be covered by India's e-Waste (Management) Rules, introduced

in 2022. The legislation covers manufacturers, refurbishers, dismantlers, and recyclers, and will therefore be indirectly relevant to the projects' eventual decommissioning. Continuum will recycle or dismantle end-of-life equipment, and designated vendors will be appointed to handle relevant e-waste, complying to the rules. In addition, the company has a waste management policy in place to ensure hazardous waste is taken care of by a certified facility. It has already achieved 100% waste segregation and aims to reach zero waste to landfill by fiscal 2025.

Renewable energy projects could introduce social risks in relation to communities and supply chain. For instance, mineral extraction and the manufacturing of solar panels bring important considerations around safety and working conditions. Most of the wind turbines and solar panels procured are manufactured in India. The company requires its suppliers to sign the Supplier Code of Conduct, which covers topics such as human rights, forced and child labor, as part of the contract. Continuum generally leases the land the projects operate on. As land titles may be uncertain in the country in the absence of a centralized and digitalized registry, securing land for development could be complex. Independent ESIAs have been and will be conducted for all projects to identify and manage potential impacts on the community. In addition, Continuum has a grievance redressal mechanism and is developing a tracking system to address grievances in real time.

Alignment Assessment

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

Alignment With Principles Aligned = Conceptually aligned = Not aligned =

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

✓ Green Loan Principles, LMA/LSTA/APLMA, 2023

\checkmark Use of proceeds

The framework's green project category is shaded in green, and Continuum commits to allocate the net proceeds of instruments issued under the framework exclusively to eligible green projects. Under the framework, the company can issue a variety of green debt instruments including green bonds and green loans to finance or refinance eligible green projects. Please refer to Analysis of Eligible Projects section for more information on our analysis of the environmental benefits of the expected use of proceeds.

✓ Process for project evaluation and selection

Continuum has established a green finance committee, comprising representatives from the sustainability, finance, and project and operations functions. Having relevant sustainability subject matter expertise within the decision-making body is a strong market practice. The committee will meet annually to evaluate and approve proposed projects based on the framework's eligibility criteria. The company will apply negative screening, and investment in activities that involve fossil fuel is excluded.

Continuum seeks to mitigate potential environmental and social risks associated with eligible projects, based on the guidance of its code of conduct, governance principles, and risk management systems. Independent ESIA has been and will be conducted for all projects, even though it not required for solar PV and wind projects in India. Continuum deploys mitigation measures as specified in ESIA recommendations.

✓ Management of proceeds

Continuum will establish a green finance register, monitored by the company's treasury team, to track the allocation of net proceeds. Pending allocation, proceeds will be held in cash, cash equivalent, or other liquid marketable instruments, in accordance with Continuum's general liquidity guidelines. In addition, unallocated proceeds will not be placed in investments that relate to greenhouse gas emission intensive assets or are inconsistent with the transition toward a low carbon economy. The company commits to replacing projects that cease to be eligible, as soon as practicable.

✓ Reporting

Continuum commits to disclosing the allocation of the net proceeds, and the financed projects' estimated and actual environmental impacts. It will report the information annually on the company's website, until the full allocation of the net proceeds. For instruments that are not publicly traded bonds, the company may choose to report directly and non-publicly, to the lenders or counterparts. Impact indicators may include the renewable energy capacity installed, annual renewable energy generation, annual CO₂ emission avoided, and electricity storage capacity installed. Continuum will disclose the assumptions behind the metrics' calculation, and have a third-party verify its allocation post-issuance, both adding to the transparency. In addition, Continuum intends to, but not commits to, align with the recommendations of ICMA's Harmonized Framework for Impact Reporting.

Analysis Of Eligible Projects

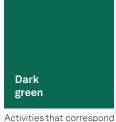
This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the Shades of Green methodology.

All proceeds will be allocated to financing and refinancing renewable energy projects. For instance, Continuum's previous bond issuance of U\$561 million refinanced close to 723GW of renewable energy capacity, with a split of 76% wind and 24% wind-solar hybrid.

Overall Shades of Green assessment

Based on the project category shades of green detailed below, and consideration of environmental ambitions reflected in Continuum's green finance framework, we assess the framework dark green.

Description



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

Our <u>Shades of Green</u> <u>Analytical Approach</u> >

Green project categories

Renewable energy

Assessment

Dark green

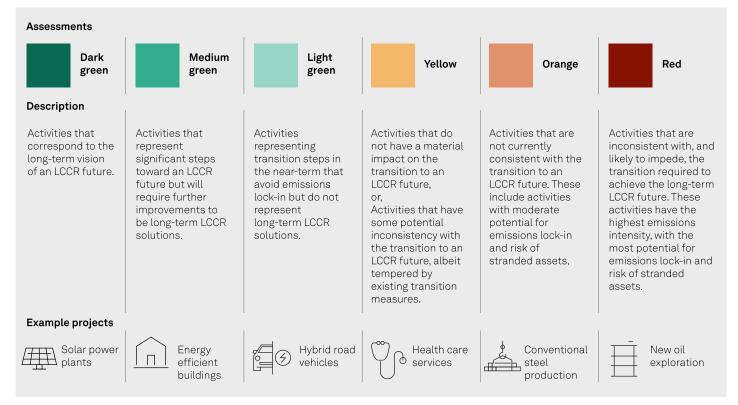
- 1. Development, construction, and operation of onshore and offshore wind farms and related support infrastructure
- 2. Development, construction, and operation of solar energy and related support infrastructure
- 3. Development, construction, and operation of wind-solar hybrid energy and related support infrastructure
- 4. Development, construction, and operation of energy storage

Analytical considerations

- The use of renewable energy is instrumental to the transition to low-carbon energy. All the energy generated will feed into India's grid. New projects support the country's pledge to increase renewable generation capacity to 500GW, and to have 50% power installed capacity from non-fossil fuel-based resources by 2030. Greater deployment of renewable energy sources is essential for low-carbon and climate-resilient socioeconomic development in the region. This is what the dark green shade reflects.
- The company has customers in high-emitting and heavy industries, which are exposed to transition and physical risks. In fiscal 2024, Continuum had 1.7GW of contracted capacity with clients in chemical (21.0%), auto and auto ancillary (15.4%), product (13.1%), textiles (12.9%), pharma (8.4%), cement (8.2%), and steel (7.8%). By supplying renewable energy to such industries, Continuum supports their decarbonization efforts.
- India has a set of environmental laws with central agencies like the Ministry of Environment, Forests and Climate Change and the Central Pollution Control Board responsible for environmental compliance and enforcement. As per the government of India's new categorization of industries based on pollution load, solar power PV and wind power projects fall under the white category and are exempt from obtaining environmental clearance and consent. Even though it is not required by law, Continuum has conducted and will conduct independent ESIAs for all projects, based on relevant International Finance Corp. (IFC) performance standards and the Equator Principles.
- No project so far is in a forested area. However, future project sites might include dry forested land, subject to approval of the Ministry of Environment and Forest. Likewise, no project is in any protected area or in areas with sensitive biodiversity. The use of forested land, even if not categorized as high-value tropical evergreen forest, may lead to deforestation, loss of local habitat, and biodiversity. In case of projects encroaching on forests, Continuum will provide mitigation measures in terms of afforestation. Continuum has included investments to access pathways within the project area under the framework. Such investments account for less than 1% of capital expenditure. The pathways will be available to the public as mandated by the

law. Even though the company has shared that the projects are located in scarcely populated areas, these roads could have a rebound effect through an increase in fossil fuel-based traffic.

- Continuum's energy storage infrastructure addresses the issue of renewable energy's intermittence and should facilitate its integration into India's energy mix. Continuum is predominantly looking at batteries as storage solutions. However, it is exploring other economically viable solutions and conducting environmental studies. Energy storage projects can involve the use of lithium-ion batteries. Mining of lithium and other ingredients used in batteries (e.g., cobalt and nickel) can have severe environmental impacts due to extensive digging, and highly toxic and water-intense production processes.
- There are lifecycle carbon emissions considerations during the development, construction, installation, and maintenance phases. These include emissions from material sourcing, manufacturing, transportation, and equipment end-of-life (e.g. solar panels, wind turbines). Continuum has mentioned that most of the wind turbines and solar panels procured are manufactured in India, reducing emissions from transport. However, the company currently does not conduct life cycle assessment and mainly relies on its Supplier Code of Conduct to ensure suppliers operate in an environmentally and socially sustainable manner. At the equipment end-of-life, Continuum will recycle or dismantle based on the India's e-waste management guideline.
- India is subject to seasonal and high temperatures, which may reduce the efficiency of wind turbines, with mixed effect on solar (reduced efficiency of PV system and increased solar irradiance). Continuum mainly relies on the ESIA to identify and manage projects' exposures to potential physical risks in the development and operational phase.



S&P Global Ratings' Shades of Green

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

LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or provents 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 impact our alignment opinion.

This framework intends to contribute to the following SDGs:

Use of proceeds	SDGs	
Renewable energy		
	*7. Affordable and 13. Climate action clean energy	

 $\ensuremath{^*\text{The eligible project categories link}$ to these SDGs in the ICMA mapping.

Related Research

- Analytical Approach: Second Party Opinions: Use of Proceeds, July 27, 2023
- FAQ: Applying Our Integrated Analytical Approach for Use-of-Proceeds Second Party Opinions, July 27, 2023
- Analytical Approach: Shades of Green Assessments, July 27, 2023
- <u>S&P Global Ratings ESG Materiality Maps</u>, July 20, 2022
- Weather Warning: Assessing Countries' Vulnerability To Economic Losses From Physical Climate <u>Risks</u>, July 20, 2022

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