



Report Type
Green Finance Framework
Second-Party Opinion

Analytical Standards
» Green Bond Principles (GBP) (June 2021 Edition)
» Green Loan Principles (GLP) (February 2023 Edition)
» United Nations Sustainable Development Goals (SDGs)

Industry
Local Investment and Development Companies

Country/Region
China

Report Date
25th February 2025

Qingdao Oceantec Valley Investment Development Group Co., Ltd.

Second-Party Opinion | Green Finance Framework

Summary

Not Aligned	Aligned	Good	Excellent
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Pillar	Alignment
Use of Proceeds	Good
Process for Project Evaluation and Selection	Good
Management of Proceeds	Good
Reporting	Good
External Reviews	Good

Lianhe Green Development Company Limited ("Lianhe Green") has reviewed a series of documents including the "Qingdao Oceantec Valley Investment Development Group Co., Ltd. Green Finance Framework", and assessed the company's relevant work in respect of the use of proceeds, project evaluation and selection process, management of proceeds, reporting, and external review. The Framework has received a Good assessment opinion from Lianhe Green. Lianhe Green considers that the Framework is in compliance with the Green Bond Principles (GBP) (June 2021 Edition) and the Green Loan Principles (GLP) (February 2023 Edition). In addition, the eligible green projects listed in this Framework are in line with the Green Bond Principles (GBP) (June 2021 Edition), the Green Loan Principles (GLP) (February 2023 Edition), and the United Nations Sustainable Development Goals (SDGs).

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About the Company

The Group is mainly engaged in the urban infrastructure construction industry and is wholly owned by Qingdao Langu Management Bureau. Since its establishment in 2016, the Group has carried out infrastructure construction activities and provided public services in Qingdao City. The Group's businesses include infrastructure construction, infrastructure maintenance, leasing, sales, and other businesses. Leveraging on the robust development of Qingdao City and Shandong Province, strong support from shareholders and the expertise of the management team, the Group has undertaken and completed a large number of strategically important projects and played an important role in the development of Qingdao City.

Company Sustainability Strategy

As a state-owned enterprise, Lianhe Green believes the Group's strategies to align with the Chinese government's strategies and relevant policies, such as China's pledge to peak carbon emissions by 2030 and achieve carbon neutrality by 2060.

After media review, Lianhe Green did not find any significant negative ESG news or controversial issues about the Group.

About the Framework of the Group

The company has prepared the Green Finance Framework (hereinafter referred to as the "Framework" or "GFF"), which is intended to provide overarching principles and guidelines for all green financing opportunities for the company.

The green bonds, green loans, or any other similar forms of debt instruments ("Green Finance Transactions" or "GFTs") issued under the Framework will comply with the International Capital Market Association's (ICMA's) Green Bond Principles (GBP) (June 2021 Edition), and the Green Loan Principles (GLP) (February 2023 Edition) published by the Loan Market Association (LMA), the Loan Syndications and Trading Association (LSTA) and the Asia-Pacific Loan Market Association (APLMA).

In this Second-Party Opinion, Lianhe Green has specifically examined the framework but has not reviewed any transaction-specific legal documents or marketing materials. Nevertheless, the framework does provide a description of the qualifying projects as described in the legal documentation of the framework.

This framework addresses the five pillars including use of proceeds, project evaluation and selection, management of proceeds, reporting, and external review.



A. Use of Proceeds

Company Materials

The Group will allocate an amount at least equivalent to the net proceeds of the Green Financing Instruments issued under the Framework to finance and/or re-finance, in whole or in part, projects which meet the eligibility criteria of the following Eligible Green Project categories ("Eligible Green Projects"), as defined as below.

A maximum 3-year look-back period would apply for refinanced projects and the Group is committed to fully allocate the net proceeds of each issuance under the Framework within 24 months from issuance/borrowing.

Eligible Green Project Categories	Qualified Green Projects
<p>Energy Efficiency</p>	<p>Increase energy efficiency and reduce building and facility energy consumption by at least 15 per cent. by investing in and spending on projects such as, but not limited to:</p> <ul style="list-style-type: none"> • In the design and construction process, in accordance with the requirements of "Intelligent Building Design Standards (GB/T 50314-2015)", adopt timely and feasible intelligent technology to realize the functions of saving resources and optimizing environmental quality management, including but not limited to effective utilization and management of renewable energy based on building equipment monitoring systems, Building Information Modeling (BIM) technology, etc.; or • Install energy-efficient equipment, replace and/or maintain existing equipment to reduce energy consumption or avoid greenhouse gas emissions, including but not limited to smart metering systems, high-efficiency HVAC systems, etc. Relevant products should comply with the current national standards "Energy-saving Design Standards for Public Buildings" (GB50189-2015), "Energy-saving Domestic Water Appliances" (CJ/T164-2014) and other standards; or • Renovation of green lighting, using LED lamps, high/low pressure sodium lamps, metal halide lamps, tri-color double-ended straight fluorescent lamps (Type TS, T5), etc., as well as the use of natural light sources, intelligent lighting control systems, etc. Relevant lighting products should meet the first-level energy efficiency requirements of relevant national and/or regional energy efficiency standards; or • Energy Conservation and Environmentally-friendly Renovation of Existing Buildings: Technical indicators of the building meet relevant national or local energy conservation standards for existing buildings and relevant requirements for energy-saving renovation activities of building energy systems after renovation. Renovation, operation and purchase of the existing buildings which have obtained relevant national green building star-level within the validity period; and the renovation, operation and purchase of existing buildings that have reached the national-relevant green building star-level within the validity period after renovation. For example, the building technology complies with technological standards such as the "Statistical Standard for Civil Buildings" (GB 50352), the "Standard for Energy-Saving in Public Buildings" (GB 50189) and the "Standard for the Evaluation of Green Retrofit of Existing Buildings" (GBT 51141).



Exclusion Criteria

The Group commits that any activities, assets and technologies related to the below will be excluded from Eligible Green Projects:

- activities that violate national laws, regulations or international conventions and agreements, or are subject to international bans;
- production or trade in arms and ammunition;
- production or trade in alcoholic beverages (other than beer and wine);
- production or trade in tobacco;
- gambling, casinos and equivalent businesses;
- production or trade in radioactive materials (radioactive sources considered insignificant and/or adequately shielded, such as quality control equipment, are not covered);
- production or activities involving harmful or exploitative forms of forced labor or harmful child labor.

Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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Lianhe Green has reviewed a number of documents, including the Green Finance Framework, and has conducted a comprehensive review of the Group's policies related to the use of proceeds based on the relevant assessment criteria.

Lianhe Green compared the green project categories listed in this framework with the Green Bond Principles (GBP) (June 2021 Edition), the Green Loan Principles (GLP) (February 2023 Edition), China's Green Bond Endorsed Projects Catalogue (2021 Edition), Hong Kong Taxonomy, EU Taxonomy and the United Nations Sustainable Development Goals (SDGs) respectively.

After the assessment, the eligible green projects align with China's "Green Bond Support Project Catalogue (2021 Edition)" and the United Nations Sustainable Development Goals. The Hong Kong Taxonomy currently does not include activities for energy efficiency.

Lianhe Green views projects related to energy efficiency have positive environmental impact. Also, the EU Taxonomy includes the installation, maintenance, and repair of energy-saving equipment, as well as energy storage. Information relevant to EU taxonomy's substantial contribution criteria will be required after project commencement or completion to determine EU taxonomy eligibility, in Lianhe Green's opinion.

The look-back period is longer than the market's best practices, and the controversial project list has less coverage than market practices. Lianhe Green considers that the Group's Use of Proceeds is Good, which is in line with the requirements of the assessment criteria.

1) Eligible Green Projects: Energy Efficiency

Eligible Green Projects

Increase energy efficiency and reduce building and facility energy consumption by at least 15 per cent. by investing in and spending on projects such as, but not limited to:

- In the design and construction process, in accordance with the requirements of "Intelligent Building Design Standards (GB/T 50314-2015)", adopt timely and feasible intelligent technology to realize the functions of saving resources and optimizing environmental quality management, including but not limited to effective utilization and management of renewable energy based on building equipment monitoring systems, Building Information Modeling (BIM) technology, etc.; or
- Install energy-efficient equipment, replace and/or maintain existing equipment to reduce energy consumption or avoid greenhouse gas emissions, including but not limited to smart



metering systems, high-efficiency HVAC systems, etc. Relevant products should comply with the current national standards "Energy-saving Design Standards for Public Buildings" (GB50189-2015), "Energy-saving Domestic Water Appliances" (CJ/T164-2014) and other standards; or

- Renovation of green lighting, using LED lamps, high/low pressure sodium lamps, metal halide lamps, tri-color double-ended straight fluorescent lamps (Type TS, T5), etc., as well as the use of natural light sources, intelligent lighting control systems, etc. Relevant lighting products should meet the first-level energy efficiency requirements of relevant national and/or regional energy efficiency standards; or
- Energy Conservation and Environmentally-friendly Renovation of Existing Buildings: Technical indicators of the building meet relevant national or local energy conservation standards for existing buildings and relevant requirements for energy-saving renovation activities of building energy systems after renovation. Renovation, operation and purchase of the existing buildings which have obtained relevant national green building star-level within the validity period; and the renovation, operation and purchase of existing buildings that have reached the national-relevant green building star-level within the validity period after renovation. For example, the building technology complies with technological standards such as the "Statistical Standard for Civil Buildings" (GB 50352), the "Standard for Energy-Saving in Public Buildings" (GB 50189) and the "Standard for the Evaluation of Green Retrofit of Existing Buildings" (GBT 51141).

Green Standards

- » GBP: Energy efficiency (such as in new and refurbished buildings, energy storage, district heating, smart grids, relevant equipment and products);
- » GLP: Energy efficiency (such as in new and refurbished buildings, energy storage, district heating, smart grids, relevant equipment and products);
- » SDGs: Goal 13 – Climate Action

Lianhe Green Findings / Suggestions

In July 2024, Qingdao city government [released](#) the "National Carbon Peak Pilot Program (Qingdao) Implementation Plan". The plan aims to explore the application of green low-carbon technologies and new energy technologies in urban renewal. Implement intelligent and low-carbon transformation of public buildings, and enhance the level of intelligent operation and management of public buildings. By 2025, a cumulative total of 63.8 million square meters of energy-saving renovation and energy-efficiency upgrading of existing buildings will be implemented, and the overall energy-efficiency of the renovated buildings will be upgraded by no less than 20%.

Lianhe Green believes that these types of projects align with the "Green Bond Endorsed Project Catalogue (2021 Edition)":

1. Category 1: Energy Saving and Environmental Protection Industry - 1.1 Energy Efficiency Improvement - 1.1.3 Energy Conservation of Power Facilities - 1.1.3.1 Renovation of Green Lighting
2. Category 5: Sustainable Upgrade of Infrastructure - 5.2 Sustainable Buildings - 5.2.1 Energy-Saving Buildings and Green Buildings - 5.2.1.5 Energy Conservation and Environmental-friendly Renovation of Existing Buildings

Lianhe Green considers these types of projects to have a positive environmental impact. However, the current Hong Kong Taxonomy does not specifically designate activities as energy efficiency activities.

The EU Taxonomy includes the installation, maintenance, and repair of energy-saving equipment, as well as energy storage. Information relevant to EU taxonomy's substantial contribution criteria will be required after project commencement or completion to determine EU taxonomy eligibility, in Lianhe Green's opinion.

B. Project Evaluation and Selection Process



Company Materials

The overall principle includes two parts as follows.

- 1) Select national and regional key green projects with a certain scale effect or demonstration effect.
- 2) Adhere to the principle of diversification in the selection of project types and regions.

Specific screening criteria: two-tier green project screening mechanism.

Eligible green projects will be selected according to above eligibility criteria.

Stage 1 Evaluation Procedure:

Review and select green projects preliminarily in accordance with the Green Bond Principles (GBP) 2021 released by International Capital Market Association (ICMA), or the Climate Bonds Standard V3.0 issued by Climate Bonds Initiative (CBI), or the Green Bond Endorsed Projects Catalogue (2021 Edition) jointly announced by the People's Bank of China (PBOC), the National Development and Reform Commission (NDRC) and the China Securities Regulatory Commission (CSRC).

Stage 2 Evaluation Procedure:

Further review and confirm on the green projects based on the direct and indirect environmental KPIs.

- 1) Direct environmental KPIs: environmental KPIs disclosed in the supporting documents for the projects, which are expected to be quantitative.
- 2) Indirect environmental KPIs:
 - i. According to the supporting documents for the projects, energy-saving technologies or producing methods have been adopted in the projects.
 - ii. The projects are in line with the policies and initiatives on the sustainable development at low carbon emissions, energy-savings and emissions reduction in the national or international markets.

Accountability Mechanisms for the Group's Green Finance

The Group's Green Finance Working Group ("GFWG") is responsible for the management of this GFF and the compliance of all financing instruments issued under the Framework. The GFWG consists of executive members of the Group and senior representatives from the following departments, including:

- Finance and Capital Department
- Financing Management Department
- Project Management Department

The GFWG may be supplemented from time to time, or expanded, by the inclusion of representatives from other relevant teams.

The GFWG will:

- Meet at least two times each year to select and evaluate green projects to invest in for the current year and the next year
- Ratify Eligible Green Projects, which are initially proposed by the constituent team members
- Undertake regular monitoring of the asset pool to ensure the eligibility of Green Projects with the criteria set out in the Group's GFF Section 1, Use of Proceeds, whilst replacing any ineligible Green Projects with eligible new Green Projects
- Ensure that projects comply with the Group's Environmental Risk Management framework as well as applicable local governmental regulations and ensure that projects no longer meeting the selection criteria detailed in the Framework will be removed and/or substituted on a best efforts basis throughout the life of the bond/loan



- Ensure that the proceeds of bonds/loans will be periodically adjusted to match allocation to eligible projects made during that period
- Facilitate regular reporting on any GFT in alignment with our Reporting commitments
- Manage any future updates to the Framework
- Ensure that the approval of Eligible Green Projects will follow the Group's existing credit/loan/investment approval processes

Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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Lianhe Green has reviewed the Green Finance Framework and other series of documents, and the company's policies on project assessment and screening process based on the relevant assessment criteria.

The Group has established a comprehensive process for screening, identifying, and evaluating green projects. The Group has a process to pre-select and evaluate the projects based on national and international standards. Direct and indirect environmental KPIs will be further reviewed, and the GFWG will meet at least two times each year to select and evaluate the green projects to invest in.

Lianhe Green considers that the Group's project assessment and screening system is Good, which meets the requirements of the assessment criteria.

C. Management of Proceeds

Company Materials

The proceeds of each of the Group's GFT can be managed through using a designated account or keeping a GFT Register. Under the GFT Register method, the proceeds will be deposited in the general funding accounts, and earmarked for allocation towards the Eligible Green Projects. The Group will maintain a GFT Register to track the use of proceeds for the GFT. Green Finance Allocation Register will be established to ensure and monitor the allocation of green finance proceeds.

The Register will contain, for each GFT launched, information including:

1. GFT Details: ISIN (if applicable), Pricing Date, Maturity Date and etc.
2. Eligible Green Project Allocation List, information including:
 - The Eligible Projects List, including for each Eligible Project, the Eligible Green Project category, project description, project location, Group's ownership percentage, total project cost, amount allocated, settled currency, etc.
 - Amount of unallocated Proceeds.

Management of the unallocated proceeds

It is the Group's intention to deploy proceeds of each of the Group's GFT to Eligible Green Projects within a 2-year period. If part of the proceeds cannot be allocated to Eligible Green Projects at the moment, the Group can deposit the unallocated proceeds into the designated account for the green bond, or invest the unallocated proceeds into qualified money market products or debt instruments according to the relevant rules and regulations set out by the competent authorities.



Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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Lianhe Green has reviewed a series of documents such as the Green Finance Framework and the company's policies on the management of proceeds based on the relevant assessment criteria.

The proceeds of each of the Group's GFT can be managed through using a designated account or keeping a GFT Register, and earmarked for allocation towards the Eligible Green Projects. Green Finance Allocation Register will be established to ensure and monitor the allocation of green finance proceeds. The unallocated proceeds may be deposited into the designated account for the green bond, or invest unallocated proceeds into qualified money market products or debt instruments according to the relevant rules and regulations set out by the competent authorities.

Lianhe Green considers that the Group's management of proceeds is Good, which meets the requirements of the assessment criteria.

D. Reporting

Company Materials

The Group will provide information on the allocation of the net proceeds of its Green Financing Instruments in a Green Finance Report. Such information will be provided on an annual basis until all the net proceeds have been allocated. According to the market needs, the information may contain the following details:

- 1) List of Eligible Green projects
- 2) The amount of Proceeds allocated to each Eligible Green Project category
- 3) When possible, descriptions of the Eligible Green Projects financed, such as project locations, amount allocated, etc.
- 4) Selected examples of projects financed
- 5) Percentage of financing vs. refinancing
- 6) Amount of unallocated Proceeds

Furthermore, the Group will confirm that the use of proceeds of the GFT conforms to this GFF and that report on a timely basis if any material development until full allocation.

Impact Reporting

The Group will provide reporting on the environmental benefits of the Eligible Green Projects potentially with the following environmental impact indicators. In addition, calculation methodologies and key assumptions will be disclosed.

Eligible Project Categories	Impact Indicators
Energy Efficiency	<ul style="list-style-type: none"> » Amount of energy saved (in MWh) » Annual energy efficiency improvement in percentage

The allocation and impact reporting mentioned above will be disclosed to the Group's stakeholders.

Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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Lianhe Green has reviewed a series of documents, including the Green Finance Framework and the company's policy based on the relevant assessment criteria.

The Group will provide green project category level disclosure reports annually until the proceeds of the GFTs have been fully allocated, and in the event of any material changes. The descriptions of the eligible Green Projects financed, such as project locations, amount allocated, etc. may be provided when possible.

Lianhe Green considers that the Group's information disclosure and reporting is Good, which meets the requirements of the assessment criteria.

E. External Review

Company Materials

Pre-issuance:

The Group has engaged Lianhe Green Development Company Limited ("Lianhe Green") to provide a second party opinion on the Green Finance Framework to review and confirm its alignment with the GBP and GLP. Lianhe Green has reviewed the Green Finance Framework and on August 16, 2024 provided its Second Party Opinion. The objective of the Second Party Opinion is to provide investors with an independent assessment. The Second Party Opinion is a statement of opinion, not a statement of fact. No representation or assurance is given by the Issuer and the Joint Lead Managers as to the suitability or reliability of the Second Party Opinion or any opinion or certification of any third party made available in connection with the Bonds issued as Green Bonds. The Second-Party Opinion together with the Green Finance Framework will be published on the Group's website. Neither the Green Finance Framework nor the Second Party Opinion is incorporated into this Offering Circular and neither the Green Finance Framework nor the Second Party Opinion forms part of this Offering Circular.

Post-issuance:

An independent third party may be engaged to review and verify the internal tracking and allocation of funds from the GFTs to Eligible Green Projects, as well as the Eligible Projects expected and actual impact that is disclosed in the Annual Reporting.

Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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The company has engaged Lianhe Green to assess the compliance of this framework with relevant international and domestic standards and to issue a second-party assessment opinion. An independent third party may be engaged to review and verify the internal tracking and allocation of funds from the GFTs to eligible green projects, as well as the eligible projects expected and actual impact that is disclosed in the Group's annual reporting.

Lianhe Green considers that the Group's management system for external review is Good and meets the requirements of the assessment standards.



Analysis of Environmental Benefits

Eligible Green Project: Energy Efficiency

Environmental Benefits

Smart meters can promote more efficient energy use and significantly reduce greenhouse gas emissions by providing real-time data to consumers and utilities, which helps optimize electricity consumption. Upgrading heating, ventilation and air conditioning (HVAC) systems to more energy-efficient models can significantly reduce energy use, which directly translates into lower carbon emissions. LED lighting consumes less energy than traditional bulbs, lasts longer, and reduces energy consumption and waste. Finally, investing in energy storage technology can store excess energy during times of high energy production and release it during times of peak demand, thereby reducing dependence on fossil fuels, lowering carbon emissions, and boosting the use of renewable energy.



Appendix

About Lianhe Green

Lianhe Green Development Company Limited ("Lianhe Green") was established in 2023 and is a subsidiary of Lianhe Equator Environmental Assessment Co., Ltd. ("Lianhe Equator") and Lianhe Credit Management Co., Ltd. ("Lianhe Group"). Lianhe Equator is the largest green and sustainable bond/loan certification provider in mainland China. As an external reviewer recognised under the Hong Kong Monetary Authority's Green and Sustainable Finance Grant Scheme, Lianhe Green is headquartered in Hong Kong, mainly responsible for green and sustainable finance certification business in international markets, ESG reporting and consulting, ESG training services, and assist in operating carbon market-related businesses within and outside China.

Lianhe Green aims to become an internationally recognized external verifier for sustainable finance through cooperation with Lianhe Equator's professional and experienced team in this industry. With a goal of "shaping the origin of the earth and sky, and transmitting the civilization of mankind", Lianhe Green is committed to helping Chinese and foreign enterprises demonstrate their determination in sustainable development, and providing investors with independent and objective third-party certification services. It is our mission to leave green and oceans to our future generations.

Scope of Analysis

Lianhe Green was engaged by the Group to provide an assessment of the company's Green Finance Framework. The assessment is to provide a professional second-party opinion of the compliance of the Green Finance Framework and does not provide any financial indicators or judgement on the investment values of the company's issuance.

Responsibilities

The Company

The Group's responsibilities are to accept the interviews from Lianhe Green's analytical team, to provide relevant data and institutional documents for the analysis, and to ensure that the data and institutional documents provided are true and effective.

External Reviewer

Lianhe Green's responsibilities are to collect data and documents provided by the Group. Lianhe Green will review all important data and documents, and issue conclusions. In addition, Lianhe Green will disclose information collected from the Group and relevant parties to demonstrate whether its Green Finance Framework meets the relevant requirements of the above standards.

Analytical Process

The main aspects of this assessment include the following:

- » Performing a comprehensive review on the persons in charge of the relevant departments to understand the key matters related to the Group's policies and processes;
- » Review the Green Finance Framework developed by the Group;
- » Review relevant disclosure reports;
- » Obtain and review appropriate supporting documentation to support key findings.

Solicitation Status

The Second-Party Opinion was solicited and assigned or maintained by Lianhe Green at the request of the company.

Disclaimer

A Lianhe Green SPO is an assessment of the green and sustainable financing frameworks of entities. It is not a credit rating.



Please note that individuals identified in an SPO report are not responsible for the opinions stated therein and are named for contact purposes only. Our report is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of financial instruments and securities.

Lianhe Green receives compensation from entities and other market participants for conducting this service. None of the aforementioned entities nor its related parties participated in the review process aside from providing information requested by Lianhe Green.

Our assessments are not considered investment advice and they are not and should not be considered as a replacement of any person's own assessment of the ESG factors related to a financial instrument or an entity. Lianhe Green does not represent, warrant or guarantee that our report will fulfill any of your or any other person's particular purposes or needs. Lianhe Green does not recommend the purchase or sale of financial instruments or securities or give investment advice or provide any legal, auditing, accounting, appraisal or actuarial services.

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