



聯合綠色發展
Lianhe Green Development

Puyang Investment Group Co., Ltd.

Second-Party Opinion | Green Finance Framework

Report Type

Green Finance Framework
Second-Party Opinion

Analytical Standards

- » Green Bond Principles (GBP) (June 2025 Edition)
- » Green Loan Principles (GLP) (March 2025 Edition)

Industry

Local Investment and
Development Companies

Country/Region

China

Report Date

15 July 2026

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Summary

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

Lianhe Green Development Company Limited (hereafter referred to as “Lianhe Green”) has reviewed a series of documents including the “Green Finance Framework” (hereafter referred to as “Framework”) issued by Puyang Investment Group Co., Ltd. (hereafter referred to as “Puyang Investment Group” or together with its subsidiaries, the “Group”), and assessed Puyang Investment Group’s relevant work in respect of the Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds, Reporting, and External Reviews. The Framework has received an assessment opinion of “Good” from Lianhe Green. Lianhe Green considers that the Framework and the eligible green projects listed in this Framework are in compliance with the Green Bond Principles (GBP) (June 2025 Edition), and the Green Loan Principles (GLP) (March 2025 Edition). At the same time, Lianhe Green’s assessment includes the contributions of the project categories to the relevant United Nations Sustainable Development Goals (UNSDGs)¹.

¹ According to the definitions of (A/RES/70/1 - Transforming our world: the 2030 Agenda for Sustainable Development)



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Lianhe Green Development

About the Company

Company Information

Puyang Investment Group Co., Ltd. was established in March 2000 and is one of the largest state-owned capital operation platforms in Puyang City, Henan Province. The Group is indirectly controlled by the Puyang Municipal Finance Bureau and ultimately by the Puyang Municipal Government. As at 31 December 2025, the Group's registered capital amounted to RMB6.6 billion, with Puyang State-owned Capital Operation Group Co., Ltd. holding 90.0% and Henan Finance Department holding 10.0% of the Puyang Investment Group's equity interest. Puyang Investment Group is the ultimate beneficial owner of the Group.

The Group primarily focuses on five principal business segments: (1) public services (including grain purchase and sale, heating, water supply and gas supply); (2) hotel services; (3) design consulting; (4) product sales (including sales of bisphenol A, corn cob, tree branches, coal and salt); and (5) other principal businesses (including labour services, rental income, agency services, property management and engineering construction). These segments accounted for 47.26%, 3.79%, 3.00%, 16.47% and 29.48% of the Group's revenue in 2025, respectively. As at 31 December 2025, the Group has 44 consolidated first-tier subsidiaries.

Company Sustainability Strategy

Company Information

Puyang Investment Group is committed to integrating the philosophy of green development into its overall business strategy, management, investment, and operations. As a leading state-owned enterprise in Puyang, the Group recognizes its responsibility to promote environmentally sustainable development and to support the transition toward a low-carbon, resource-efficient economy.

Green Infrastructure Development

The Group has been the primary constructor of major infrastructure projects in Puyang, including roads and bridges, land acquisition and demolition, land levelling, and various municipal infrastructure projects. Many of these projects have been designed and constructed to meet nationally recognized green building standards, with a focus on sustainable water and wastewater management, environmentally sustainable management of living and natural resources, and responsible land use. The Group's projects aim to achieve targets such as the construction of environmentally friendly buildings, flooding mitigation, and environmentally sustainable agriculture in Puyang City.

Environmental Protection and Compliance

The Group operates its businesses in strict compliance with applicable environmental laws and regulations governing air pollution, noise emissions, hazardous substances, water and waste discharge, and other environmental matters. The Group maintains regular communication with local governments and regulatory authorities through its management team, ensuring compliance with the requirements and conditions for obtaining and maintaining all necessary licenses, concessions, permits, and certificates.

Green Finance Track Record

The Group has demonstrated its commitment to green finance through the successful issuance of green bonds. In August 2025, the Group issued its first green corporate bonds—the "25 Puyang G1" (RMB350 million, 7-year tenor, coupon rate 2.86%) and "25 Puyang G2" (RMB320 million, 7-year tenor, coupon rate 3.15%)—which were listed on the Shenzhen Stock Exchange. This issuance filled the gap in green



corporate bond issuance in Puyang and was recognized as a “Green/ESG Bond Outstanding Practice Case” at the 2025 Bond Market High-Quality Development Conference. The proceeds were directed toward new energy and ecological governance projects, adhering to the principle of “dedicated funds for dedicated purposes”.

Stakeholder Engagement and Risk Management

The Group pays close attention to stakeholders’ demands and has introduced diversified stakeholder communication channels. Through stakeholder engagements, the Group identifies green development issues relating to project-level environmental risks and/or impact identification, implementation, management, and mitigation. The Group has adopted strict environmental measures and assessments to ensure compliance with national laws and regulations on sustainable development.

Looking Forward

During the “15th Five-Year Plan” period and beyond, the Group will continue to take responsibility for operating major municipal infrastructure projects in Puyang and improving urban infrastructure services in areas of public welfare, water management, road traffic facilities, and other essential services. The Group will continue to adhere to the concept of green development while expanding its market-oriented businesses, with a focus on creating long-term sustainable value for all stakeholders.

Opinion of Lianhe Green

In 2025, Henan Province issued the [*Implementation Opinion of Henan Province on Strengthening Eco-Environmental Functional Partitioning Control*](#) (the “Opinion”). The Opinion states that by 2035, Henan Province will comprehensively establish a sound, well-functioning, and highly efficient eco-environmental functional partitioning control system. The modernization of the province’s eco-environmental management system and governance capabilities will be fully enhanced, providing robust support for a fundamental improvement in the ecological environment and the realization of the construction goals for a “Beautiful Henan.”

As a state-owned enterprise, Puyang Investment Group follows the sustainable development policies of the central government and the government of Henan Province. The Group’s main business is infrastructure construction, including water management, road traffic facilities, and other essential services. These businesses of the Group can contribute positively to the realization of environmental targets set by the Government.

Based on the media review and the evidence obtained, nothing has come to Lianhe Green’s attention that causes us to believe that Puyang Investment Group has any significant negative ESG news or controversial issues as of June 2026.

To further explain the relevance of the use of proceeds and the issuer’s sustainability strategy, it is common market practice for issuers of sustainable financing instruments to disclose issuer-level environmental or social information, in accordance with globally accepted reporting frameworks (e.g., GRI or ISSB). However, Puyang Investment Group has not disclosed relevant information yet.

A. Use of Proceeds

Company Information

The Group will exclusively allocate the net proceeds from green financing instruments or an amount equivalent to the net proceeds of a Green Financing Transaction (“GFT”) issued under this framework to finance or refinance, in whole or in part, new or existing projects that meet the eligibility criteria of the following eligible green project categories, as defined below.



The Group expects each issuance under this framework to be fully allocated within 36 months from the date of issuance, and on a best-efforts basis. A maximum of 36 months look-back period would apply for refinanced projects. The proportion of financing and refinancing for the eligible green projects will be disclosed.

i. Eligible Green Projects Categories

Eligible Green Projects Categories and mapped Sustainable Development Goals (“SDGs”)	Description/Condition of Eligible Green Projects
Green Building   Key Objectives: - Climate Change Mitigation - Natural Resource Conservation	Investment, acquisition, design, and expenditures related to new construction and/or renovation, refurbishment, and maintenance of existing owned and/or managed properties that will reduce building environmental impact in accordance with any one of the certification systems. - U.S. Leadership in Energy and Environmental Design (LEED) – minimum certification of Gold; or - BREEAM – minimum certification level of Excellent; or - Chinese Green Building Evaluation Label² (GBL) – minimum certification level of Three stars; or - BEAM Plus – minimum certification level of Gold; or - Any other green building certification with the same standard as the above.
Sustainable Water and Wastewater Management   Key Objectives: - Flood Mitigation - Sustainable Urban Drainage	Investment, acquisition and expenditures related to purchase, manufacture, construction and reconstruction system(s) prioritize(s) flood prevention, while also consider(s) drainage and improve(s) the aquatic ecological environment. Flood control standards and drainage standards: - Standard for flood control (GB 50201-2014); and/or - Code for design of urban flood control project (GBT50805-2012); and/or - Code for design of levee project (GB 50286-2013) • Meeting the standard according to the size of the protection range of flood embankments, the population size, and the importance of cities. Embankment and building level: - Standard for Classification and Flood Control of Water Resources and Hydroelectric Project (SL252-2000); and/or - Code for design of levee project (GB50286-2013) • Minimum engineering level of level 5; minimum level of buildings on the embankment of level 5. Indicative Project: - Puyang Chengbei Wastewater Treatment Plant Project (100,000 tons/day capacity, quasi-Class IV effluent standard,

² Assessment Standard for Green Building GB/T 50378-2019



	located north of Puyang No. 1 WWTP). The project will reduce pollutant loads discharged into the Majia River, address capacity limitations of the aging Oilfield WWTP, and provide treatment for initial rainwater runoff.
Environmentally Sustainable Management of Living, Natural Resources and Land Use  Key Objectives: • Optimize the Pattern of Water Resource Allocation and Enhance Efficiency of Water Resource Utilization • Increase the Area of Water-saving Irrigation • Development of Environmentally Sustainable Agriculture	Investment, acquisition and expenditures related to purchase, manufacture and construction aim(s) at saving irrigation water usage, increasing water-saving irrigation areas, and ultimately serving the development of environmentally sustainable agriculture. Irrigation standards: - Design standard for irrigation and drainage engineering (GB50288-2018) • Meeting the standard of guarantee rate and effective utilization coefficient of irrigation water depend on objective situations, e.g. crop types, locations, irrigation area, and etc.; or - Any other irrigation standards with the same standard as the above. Engineering standards: - Standard for rank classification and flood protection criteria of water and hydropower projects (SL252-2017) • Minimum engineering level of level 5; or - Any other engineering standards with the same standard as the above.

Exclusion Criteria:

Reference to the latest International Finance Corporation (IFC) Exclusion List, the Group has added the following activities to the exclusion list. In any case, eligible green projects under this framework will exclude the following activities from consideration for eligibility:

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone-depleting substances, polychlorinated biphenyls (PCBs), wildlife or products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- Production or trade in weapons and munitions;
- Production or trade in alcoholic beverages (excluding beer and wine);
- Production or trade in tobacco;
- Gambling, casinos, and equivalent enterprises;
- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where any IFC considers the radioactive source to be trivial and/or adequately shielded;
- Production or trade in unbonded asbestos fibers. This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20 per cent;
- Drift net fishing in the marine environment using nets over 2.5 kilometers in length;
- Production or activities involving forced labor and child labor;
- Commercial logging operations for use in primary tropical forest;



- Production or trade in wood or other forestry products other than from sustainably managed forests;
- Palm oil related activities;
- Projects related to nuclear energy production;
- Projects related to fossil fuel production;
- Projects related to coal mining;
- Projects related to hydropower which installed capacity exceeding 25MW.

Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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Lianhe Green, in accordance with the relevant assessment criteria, reviewed the Framework and other related documents, and the issuer's policies on Use of Proceeds.

After the assessment, Lianhe Green believes that Puyang Investment Group has clearly categorized the eligible projects into the listed categories of GBP and GLP. All Puyang Investment Group's projects are located in China. The eligible green project category aligns with China's *Green Finance Endorsed Project Catalogue (2025 Edition)* and *Hong Kong Taxonomy for Sustainable Finance (Phase 2A) (Hong Kong Taxonomy)*.

Puyang Investment Group's contribution to UNSDGs is clearly stated. In accordance with the requirements of the GLP, Puyang Investment Group clearly disclosed the environmental objectives of eligible green projects. Detailed analysis will be elaborated in the following paragraphs.

Through communication, the raised proceeds will be allocated 100% toward refinance. Lianhe Green recommends that Puyang Investment Group disclose the proportion of financing and refinancing to stakeholders prior to the bond issuance. A maximum 3-year look-back period would be applied to refinanced projects, which is longer than the market best practice period. The Framework clearly stated the exclusion list, including 16 activities, assets and technologies, demonstrating a broader and more comprehensive scope than standard market practices.

Lianhe Green's assessment of Puyang Investment Group's Use of Proceeds is "Good".

1) Eligible Green Project Category: Green Building

Eligible Green Project Categories Under Principles

Lianhe Green considers that this project category under the Framework is most relevant to the eligible Green Projects Category "Green buildings that meet regional, national or internationally recognised standards or certifications for environmental performance" under both GBP and GLP.

Alignment with *Green Finance Endorsed Project Catalogue (2025 Edition)*, *Hong Kong Taxonomy* and *EU Taxonomy*

Lianhe Green believes the Framework's description on "Investment, acquisition, design, and expenditures related to new construction and/or renovation, refurbishment, and maintenance of existing owned and/or managed properties that will reduce building environmental impact in accordance with any one of the certification systems: Chinese Green Building Evaluation Label (GBL) – minimum certification level of Three stars" is aligned with and better than the description of "6.1.1 Construction and operation of green buildings" under *Green Finance Endorsed Project Catalogue (2025 Edition)*, which requires the green buildings to reach 1 Star or above.

Lianhe Green believes that the specifications stipulated in the Framework are in line with the relevant requirements of Activity "C-002 Construction of New Buildings" under the Construction sector of the *Hong Kong Taxonomy*. The *Hong Kong Taxonomy* explicitly mandates that building projects in the



Chinese Mainland shall obtain the China Green Building Evaluation Label (Three Star System) at the third-level to be eligible. Therefore, the eligibility criteria defined in the Framework fall within the recognized scope of the *Hong Kong Taxonomy*.

The construction of new buildings and renovation of existing buildings are included in the *EU Taxonomy*. However, the *EU Taxonomy* focuses on specific energy performance indicators rather than green building certification schemes, such as the Primary Energy Demand (PED), which defines the energy performance of the building resulting from the construction, is at least 10% lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national measures implementing Directive 2010/31/EU of the European Parliament and of the Council.

Relevant Key United Nations Sustainable Development Goals

Lianhe Green believes this eligible Green Project category contributes positively to the United Nations Sustainable Development Goals, in particular, there is significant contributions to Target 9.4 of Goal 9 (Industry, Innovation and Infrastructure) "By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities". In addition, it makes significant contributions to Target 11.c of Goal 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) "Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials".

Environmental Benefits

Compared with ordinary buildings, green buildings can use land resources more efficiently and provide relatively more centralized public service facilities, use a higher proportion of renewable and recyclable materials in the construction process, give fuller consideration to the natural conditions of the site, and set up air-cooling systems according to the principle of natural ventilation, so that the green building can effectively make use of the dominant wind direction in summer; reasonably design the building envelope, using energy-saving lighting and configure corresponding intelligent control systems during operation. Elevators are equipped with high-efficiency transformers, and energy-using equipment can be equipped with variable frequency functions. According to "[Tech New Era](#)", green buildings can reduce energy consumption by 30% to 50% compared to traditional buildings.

At the local policy level, the [Technical Guidelines for the Preparation of Special Plans for Green Building Development in Henan Province \(Trial\)](#) specifies long-term development targets, requiring that the proportion of star-rated green buildings in Puyang City shall exceed 40% and the proportion of newly started prefabricated buildings shall exceed 55% by 2035. Meanwhile, as stated in the Henan Provincial Development and Reform Commission's [2025 Puyang Carbon Peaking and Carbon Neutrality Work Summary](#), Puyang City continued to promote energy conservation and carbon reduction in the construction sector in 2025, with a 100% implementation rate of green building standards for new urban buildings. The eligible projects of Puyang Investment Group comply with local regulatory requirements and actively support the regional penetration of green buildings and the delivery of energy-saving and carbon reduction goals in the construction industry.

Therefore, Lianhe Green holds that the provisions on green buildings specified in the Framework are in compliance with relevant government regulations and exceed the common one-star green building standards widely adopted in the market. Such project categories can make positive contributions to the environmental objectives of climate change mitigation and natural resource conservation.

2) Eligible Green Project Category: Sustainable Water and Wastewater Management

Eligible Green Project Categories Under Principles

Lianhe Green considers that this project category under the Framework is most relevant to the eligible Green Projects Category "Sustainable water and wastewater management (including sustainable



infrastructure for clean and/or drinking water, wastewater treatment, sustainable urban drainage systems and river training and other forms of flooding mitigation)" under GBP, and "Sustainable water and wastewater management (including sustainable infrastructure for clean and/or drinking water, smart irrigation and wastewater treatment);" under GLP.

Alignment with *Green Finance Endorsed Project Catalogue (2025 Edition)*, *Hong Kong Taxonomy* and *EU Taxonomy*

Lianhe Green believes the Framework's description on "Sustainable water resources and wastewater management: Investment, acquisition and expenditures related to purchase, manufacture, construction and reconstruction system(s) prioritize(s) flood prevention, while also consider(s) drainage and improve(s) the aquatic ecological environment", "Flood control standards and drainage standards" "Embankment and building level" make a positive contribution to the "River and Lake Governance and Flood Control Facility Engineering and Construction" industry under the field of "5.2.11 Prevention, Control and Response to Drought and Flood Disasters in Aquatic Ecosystems" in the *Green Finance Endorsed Project Catalogue (2025 Edition)*. In addition, the Framework's description on "Indicative Project: Puyang Chengbei Wastewater Treatment Plant Project (100,000 tons/day capacity, quasi-Class IV effluent standard, located north of Puyang No. 1 WWTP). The project will reduce pollutant loads discharged into the Majia River, address capacity limitations of the aging Oilfield WWTP, and provide treatment for initial rainwater runoff" contributes positively to "6.4.5 Investigation, Renovation, Construction and Restoration of Urban Sewage Collection Systems" and "6.4.7 Construction and Operation of Sewage and Sludge Treatment and Disposal Facilities" in the *Green Finance Endorsed Project Catalogue (2025 Edition)*.

Currently, wastewater collection and treatment initiatives have been incorporated into the Water Sector of the *Hong Kong Taxonomy*, and are designated as priority areas for climate change adaptation under the *Hong Kong Taxonomy*. Adopting stormwater separation works as a climate adaptation measure, relevant projects reduce physical infrastructure vulnerability due to separation of rainwater from wastewater systems. The Framework is consistent with the relevant standards stipulated in the *Hong Kong Taxonomy*.

Lianhe Green believes that these types of projects are partially eligible for the activity "Urban Waste Water Treatment" of *EU Taxonomy*, which states that "Construction, extension, upgrade, operation and renewal of urban wastewater infrastructure including treatment plants, sewer networks, storm water management structures". However, *EU Taxonomy* has more requirements on the capacity and treatment technology, which is not stated in the Framework.

Relevant Key United Nations Sustainable Development Goals

Lianhe Green believes this eligible Green Project category contributes positively to the UNSDGs, in particular, it makes significant contributions to Target 11.5 of Goal 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) "By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations". In addition, it makes significant contributions to Target 13.1 of Goal 13 (Take urgent action to combat climate change and its impacts) "Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries".

Environmental Benefits

At the policy level, [*the Notice of the General Office of the People's Government of Henan Province on Issuing the Scheme for Enhancing Urban Flood Control and Drainage Capacity in Henan Province*](#) explicitly mandates the integrated formulation or revision of regional flood control, urban flood control, and comprehensive urban drainage and waterlogging prevention planning, aiming to establish a rationally laid out, safe, reliable, smart, and resilient modern urban flood control and drainage system, while requiring all newly constructed drainage networks to fully implement stormwater separation. Furthermore, recently, the General Office of the CPC Henan Provincial Committee and the General



Office of the People's Government of Henan Province issued the [Implementation Scheme for Promoting High-Quality Urban Development](#), highlighting the execution of urban domestic wastewater treatment capacity enhancement projects, explicitly proposing to add 1 million tons/day of wastewater treatment capacity by 2030, continuously investigating and rectifying misconnections and mixed connections in wastewater networks, and advancing stormwater separation in accordance with local conditions.

As a core municipal state-owned enterprise in Puyang, Puyang Investment Group actively implements policy requirements and strictly adheres to national and industry codes, such as the *Standard for Flood Control*, the *Code for Design of Levee Project*, and the *Standard for Classification and Flood Control of Water Resources and Hydroelectric Project*. The Group advances the construction and operation of regional wastewater treatment facilities and supporting network projects to systematically optimize and upgrade the urban drainage and flood control system. Exemplified by the Puyang Chengbei Wastewater Treatment Plant Project, the Group precisely achieves environmental objectives for pollution prevention and control and continuously improves the regional aquatic environment through systematic pollution and emission reduction. Concurrently, prioritizing flood control and drainage while incorporating ecological drainage functions, the project efficiently channels stormwater runoff to effectively mitigate the risks of urban waterlogging and flood disasters induced by torrential rain, thereby comprehensively enhancing urban flood control and drainage capacity as well as climate adaptation resilience, and supporting the realization of environmental objectives for climate change mitigation and adaptation. Relying on an integrated construction model encompassing wastewater purification treatment, initial rainwater management, and flood drainage quality upgrading, the project establishes a scientifically sound and sustainable urban drainage system, achieves intensive water resource utilization and closed-loop cycling management, robustly supports the development of a regional water-saving society, and lays a solid foundation for the sustainable development of urban water resources.

3) Eligible Green Project Category: Environmentally Sustainable Management of Living, Natural Resources and Land Use

Eligible Green Project Categories Under Principles

Lianhe Green considers that this project category under the Framework is most relevant to the eligible Green Projects Category “Environmentally sustainable management of living natural resources and land use (including environmentally sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip irrigation; environmentally sustainable fishery and aquaculture; environmentally sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes)” under GBP, and “Environmentally sustainable management of living natural resources and land use (including environmentally sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip-irrigation; environmentally sustainable fishery and aquaculture; environmentally sustainable forestry, including afforestation or reforestation; preservation or restoration of natural landscapes; eco-tourism; and sustainable traceability mechanisms)” under GLP.

Alignment with *Green Finance Endorsed Project Catalogue (2025 Edition)*, *Hong Kong Taxonomy* and *EU Taxonomy*

Lianhe Green considers that the Framework’s description on “Investment, acquisition and expenditures related to purchase, manufacture and construction aim(s) at saving irrigation water usage, increasing water-saving irrigation areas, and ultimately serving the development of environmentally sustainable agriculture” aligns with the “Irrigation Activities” industry under the field of “3.2.2 Efficient and Recyclable Utilization of Water Resources” in the *Green Finance Endorsed Project Catalogue (2025 Edition)*. In addition, the Framework explicitly mandates that relevant projects must adhere to the *Design Standard for Irrigation and Drainage Engineering (GB50288-2018)* and the *Standard for Rank Classification and Flood Protection Criteria of Water and Hydroelectric Project (SL 252-2017)*, or any other standards with the same standard as the above, which comprehensively



covers core indicators such as crop design irrigation guarantee rate, water utilization coefficients, and engineering classifications, and is consistent with the criteria stipulated in the *Green Finance Endorsed Project Catalogue (2025 Edition)* that “agricultural production irrigation activities that adopt water-saving irrigation technologies, including but not limited to drip irrigation, sprinkler irrigation, low-pressure pipe irrigation, micro-irrigation, and canal seepage prevention during (crop cultivation and production) irrigation activities, and that water-saving irrigation facilities shall comply with the requirements stipulated in the Technical Code for Water-Saving Irrigation Engineering (GB/T 50363).”

Currently, measures related to water supplies have been incorporated into the Water Sector of the *Hong Kong Taxonomy*, serving as a whitelisted category under the climate change adaptation domain. In addressing the climate hazard of “Water Stress,” the project focuses on optimizing water resource allocation, enhancing water resource utilization efficiency, and expanding water-saving irrigation areas. It explicitly mandates that relevant engineering designs must strictly adhere to core indicators specified in codes such as the *Design Standard for Irrigation and Drainage Engineering (GB50288-2018)* and the *Standard for Rank Classification and Flood Protection Criteria of Water and Hydroelectric Project (SL 252-2017)*. This highly aligns with the adapting measures stipulated in the *Hong Kong Taxonomy*, namely “G-003 Implementation of automated water control systems” and “G-004 Installing water resource monitoring equipment.” Relying on scientific irrigation reliability and intensive water utilization coefficient controls, the project delivers key adaptation outcomes by achieving “reduced physical vulnerability due to optimised water distribution” and “improved adaptive capacity due to real-time monitoring of water resource availability,” thereby effectively mitigating potential asset value loss due to water stress.

In addition, the *EU Taxonomy* hasn't currently designated activity categories related to water-saving irrigation and sustainable agricultural development activities.

Relevant Key United Nations Sustainable Development Goals

Lianhe Green believes this eligible Green Project category contributes positively to the United Nations Sustainable Development Goals (UNSDGs), in particular, it makes significant contributions to Target 6.4 of Goal 6 (Ensure availability and sustainable management of water and sanitation for all) “By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity”.

Environmental Benefits

At the policy level, the [*Regulations of Henan Province on Water Conservation \(2025 Amendment\)*](#) encourage the promotion and utilization of new technologies, acceleration of the renovation of agricultural water-saving facilities, and the adoption of advanced water-saving irrigation technologies such as sprinkler irrigation, drip irrigation, and seepage irrigation to enhance agricultural irrigation water efficiency. It also explicitly mandates that people's governments at or above the county level shall strengthen water-saving irrigation work, organize the construction of water-saving irrigation engineering facilities, and promote water-saving irrigation technologies based on local conditions.

As a local state-owned enterprise, Puyang Investment Group actively responds to the provincial and municipal policy deployments regarding water conservation and sustainable agricultural development. The Group is committed to advancing the purchase, manufacture, and construction of eligible projects, translating the environmental objectives defined in the Framework into tangible investment practices. The investment and construction of such projects take the optimization of the pattern of regional water resource allocation as an entry point to fundamentally enhance the efficiency of water resource utilization through precise conservation of irrigation water. Concurrently, the implementation of these projects will expand the area of water-saving irrigation, ultimately serving the long-term development of environmentally sustainable agriculture. Lianhe Green considers that the environmental benefits of such projects are clear. While mitigating regional water stress and optimizing water usage quality,



these initiatives play a proactive role in promoting the development of environmentally sustainable agriculture and the long-term sustainable management of water resources.

B. Process for Project Evaluation and Selection

Company Information

The Group has strict environmental risk management procedures in place for its daily operations and project construction. To evaluate and select projects, the Group has established a Green Financing Working Group (the “GFWG”) that is responsible for ensuring that the net proceeds from green financing instruments or an equivalent amount are allocated to eligible projects under the Group’s framework. The GFWG is also tasked with managing any future updates to the framework, including expanding the requirements for the use of proceeds.

For potential eligible green projects, the relevant project department will first pre-select and evaluate the projects based on feasibility studies, environmental impact assessments, preliminary designs, and other relevant documents. The department then submits these potential projects to the GFWG, which further assesses and evaluates whether the projects meet the eligibility and exclusion criteria of the framework. The GFWG also ensures that appropriate mitigation measures are in place to address any environmental risks. The projects that are endorsed by the GFWG are then shortlisted and presented to the Company’s board of directors for final approval. Once approved by the board, the selected projects are added to the list of eligible green projects.

The GFWG is responsible for managing and ensuring compliance with the framework. The GFWG is composed of senior management members from various departments within the Group and its subsidiaries, including the Strategic Investment Department, Planning and Finance Department, Financial Management Department, Operation Management Department, Audit and Legal Department and employees with professional background from subsidiaries. The GFWG will convene at least annually, or on an as-needed basis, to discuss, evaluate, and select eligible green projects according to the criteria outlined in the framework. The GFWG will regularly monitor the asset pool to ensure the selected projects align with the eligibility criteria specified in Section 1. If any projects become ineligible, the GFWG will replace them with new eligible green projects. In addition, the GFWG will facilitate regular reporting on any GFTs issued, ensuring alignment with the reporting commitments outlined in the framework.

Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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Lianhe Green, in accordance with the relevant assessment criteria, reviewed the Framework and other related documents, and the issuer’s policies on Project Evaluation and Selection.

The potential eligible green projects will be first pre-selected and evaluated by the relevant project departments, and then be submitted to the GFWG, which further assesses and evaluates the projects. The staff including senior management members from various departments within the Group and its subsidiaries, including the Strategic Investment Department, Planning and Finance Department, Financial Management Department, Operation Management Department, Audit and Legal Department and employees with professional background from subsidiaries, will convene at least annually, or on an as-needed basis, to discuss, evaluate, and select eligible green projects according to the criteria outlined in the Framework. Then the projects that are endorsed by the GFWG are then shortlisted and presented to Puyang Investment Group’s board of directors for final approval. Also,



the GFWG will regularly monitor the asset pool. If any projects become ineligible, the GFWG will replace them with new eligible green projects.

Lianhe Green's assessment of Puyang Investment Group's Process for Project Evaluation and Selection is "Excellent".

C. Management of Proceeds

Company Information

The Group intends to allocate the net proceeds from the GFT(s) or an amount equal to the net proceeds of the GFT(s) over time to finance or refinance the eligible green projects, which are selected according to the eligibility criteria using the evaluation and selection process outlined above.

The net proceeds of each GFT or an amount equal to it 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. A green finance allocation register will be established to record the allocation of proceeds.

The register will contain information including the following:

1. Type of funding transaction: ISIN (if applicable), pricing date, maturity date etc.; and
2. Eligible green projects allocation list, information including:
 - the eligible projects list, including for each eligible project, the eligible green project category, project description, project location, ownership percentage, total investment amount, amount allocated, settled currency, etc.;
 - the balance of unallocated proceeds; and
 - the information of temporary investment for unallocated proceeds.

Any balance of issuance proceeds, which are not yet allocated to eligible green projects, will be temporarily held in accordance with the Group's liquidity guidelines on cash, cash equivalents or short-term deposits, and the Group commits not to invest such unallocated net proceeds to the projects, which are subject to exclusions criteria under this framework. For each issuance under this framework, the Group will review the register on an annual basis.

During the life of the GFT(s) issued, if the designated projects cease to fulfil the eligibility criteria, the net proceeds will be re-allocated to replacement projects that comply with the eligibility criteria as soon as reasonably practicable.

Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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Lianhe Green, in accordance with the relevant assessment criteria, reviewed the Framework and other related documents, and the issuer's policies on Management of Proceeds.

Under the management mechanism of the GFT register, the proceeds will be deposited into general funding accounts and earmarked specifically for allocation to eligible green projects. Puyang Investment Group will track the entire flow of funds using the GFT register and establish a green finance allocation registry system to achieve systematic monitoring of fund distribution. Nevertheless,



in alignment with market best practices, issuers are typically expected to prioritize the allocation of unallocated proceeds to other eligible alternative projects and promptly notify relevant stakeholders in the event of any material changes or variations in the allocation of proceeds.

Lianhe Green's assessment of Puyang Investment Group's Management of Proceeds is "Good".

D. Reporting

Company Information

For the GFT(s) issued under the framework, the Group will make and keep readily available category level disclosure reports via the social media of itself or its subsidiaries, or include in the Group's annual report. The Group will disclose the allocation and impact of the net proceeds raised under the framework or an amount equal to these net proceeds, on an annual basis starting from the first year of issuance until the full allocation of the net proceeds of any GFT issued, and thereafter in the event of any material changes.

Allocation Report

The allocation report will include the following information at GFT and eligible category levels where applicable:

- the net proceeds of each GFT outstanding;
- list of eligible green projects with descriptions and the amount that has been allocated and earmarked;
- the proportion of the proceeds allocated to refinancing of existing eligible green projects, with clarification on which investment or project portfolios will be refinanced;
- the balance of unallocated proceeds held in cash, cash equivalents or short-term deposits and its temporary treatment (if any); and
- the types of temporary unallocated funds placements and uses.

Impact Report

The Group will report impacts arising from the eligible green projects and provide the methodology and assumptions used for calculation of the impact indicators.

The Group will commit to aligning the reporting with the project approach described in ICMA's *Handbook – Harmonised Framework for Impact Reporting* (June 2024) subject to the availability of suitable information and data.

Examples of impact reporting indicators include:

Eligible Categories	Impact Indicators
Green Building	- Type and level of green building certifications obtained
Sustainable Water and Wastewater Management	- Number of people and/or enterprises (e.g. companies or farms) benefitting from measures to mitigate the consequences of floods and droughts - Area covered by sustainable land and water resources management practices - Wastewater treatment capacity added (tons/day) - Pollutant removal volume (COD, NH₃-N, TP, TN) (tons/year)



	- Effluent water quality level achieved - Length of sewage pipeline network constructed or upgraded (km) - Water body quality improvement (e.g., Majia River water quality grade)
Environmentally Sustainable Management of Living, Natural Resources and Land Use	- The total area of irrigation improved (acres) - The amount of water saved for agriculture (m³ in thousands) - Grain production capacity added (kg in thousands) - Cash crop production capacity added (kg in thousands)

Opinion of Lianhe Green

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

Puyang Investment Group will provide information on the allocation of the net proceeds of its Green Financing Instruments in a report. Such information will be provided on an annual basis and will report on a timely basis if any material development until full allocation. Besides, Puyang Investment Group will report on the environmental impacts resulting from eligible projects. The report includes core indicators published by the ICMA, and calculation methodologies and assumptions may be disclosed.

Lianhe Green's assessment of Puyang Investment Group's Reporting is "Excellent".

E. External Reviews

Company Information

Pre-issuance:

The Group has appointed Lianhe Green to provide a Second-Party Opinion on this Framework to review and confirm its alignment with the GBP, GLP. The Second-Party Opinion together with the Framework will be published.

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 Group's Annual Reporting.

Opinion of Lianhe Green

Not Aligned	Aligned	Good	Excellent
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Lianhe Green Development

Puyang Investment Group has engaged Lianhe Green to assess the compliance of this Framework with relevant international and domestic standards and to issue a second-party opinion.

Considering that, post issuance, ICMA recommends that an issuer's management of proceeds be supplemented by the use of an external auditor, or other third party, to verify the internal tracking and the allocation of funds from the proceeds to Eligible Projects. Therefore, Lianhe Green's assessment of Puyang Investment Group's External Reviews is "Good".



Appendix

About Lianhe Green

Lianhe Green Development Company Limited (hereafter referred to as “Lianhe Green”) was established in 2023 and is a subsidiary of Lianhe Credit Management Co., Ltd. (hereafter referred to as “Lianhe Credit”) and Lianhe Equator Environmental Assessment Co., Ltd. (hereafter referred to as “Lianhe Equator”). 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 assistance 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 Puyang Investment Group to provide an assessment of Puyang Investment Group’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 constitute any financial indicators or judgement on the investment values of Puyang Investment Group’s issuance.

Responsibilities

Puyang Investment Group

Puyang Investment 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 Puyang Investment Group. Lianhe Green will review all important data and documents, and issue conclusions. In addition, Lianhe Green will disclose information collected from Puyang Investment Group and relevant parties to demonstrate whether its Green Finance Framework meets the relevant requirements of the above standards.

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.

Analytical Process

The main aspects of this assessment include the following:

- » Conduct interviews with the persons in charge of the relevant departments to understand the key matters related to Puyang Investment Group’s policies and processes;
- » Review the Green Finance Framework developed by Puyang Investment 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 Puyang Investment Group.

Disclaimer

To avoid ambiguity, please refer to the English version published on the official website of Lianhe Green. The Chinese version is for reference only.

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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