

Beijing Environment Sanitation Engineering Group Co., Ltd.

Green Financing Framework

August 2021



Table of Contents

1. Introduction	2
1.1 Business Overview	2
1.2 Sustainability Vision and Strategy	4
1.2.1 Sustainable Development	4
1.2.2 Sustainability Management Team	5
1.2.3 Awards	5
2. Green Financing Framework Overview	6
2.1 Use of Proceeds	7
2.2 Process for Project Evaluation and Selection	10
2.3 Management of Proceeds	12
2.4 Reporting	13

1. Introduction

1.1 Business Overview

The Group is a professional environmental services provider under Beijing SASAC, and a national leading state-owned enterprise providing cleaning and sanitation, solid waste collection and transportation, solid waste treatment, equipment manufacturing and renewable resources development. The Group is also one of the professional environmental services providers with the largest scale and the most comprehensive competitiveness. For the year ended 31 December 2020, the Group's annual harmless solid waste treatment capacity accounted for about 50% of the total volume in Beijing, making it the largest solid waste treatment environmental sanitation enterprise in Beijing. The main responsibilities of the Group are to ensure the safety and stability of the environmental sanitation operation of the capital city and provide environmental sanitation support for major national and capital city's activities. The Group has 71 years of experience in environmental sanitation services, 20 years of experience in corporate operations and 29 years of experience in harmless solid waste treatment.

The Group is based in Beijing and continues to expand its business across the country, with environmental services covering 67 cities and counties in 23 provinces and autonomous regions in China. The Group's total consolidated revenue for the years ended 31 December 2018, 2019 and 2020 amounted to approximately RMB9,337.9 million, RMB11,904.8 million and RMB12,354.5 million, respectively. The Group's total consolidated profit for the same periods were approximately RMB859.0 million, RMB797.9 million and RMB738.8 million, respectively.

The Group's operations primarily focus on four major business segments, namely (i) environmental services in Beijing; (ii) environmental services outside Beijing; (iii) equipment manufacturing; and (iv) renewable resources development. The following sets out an overview of the Group's major business segments:

- **Environmental services** – The Group provides comprehensive environmental sanitation solutions in Beijing and outside Beijing in other areas in China, including front-end services of road cleaning and waste collection, mid-end services of waste sorting and transportation, as well as back-end services of waste disposal. As at 31 December 2020, the Group is responsible for cleaning and sanitation in streets with an aggregate area of approximately 54.5 million square metres, completed sanitation and cleaning of an aggregate area of approximately 650.0 million square metres, transported waste in the total amount of approximately 9.6 million tonnes and disposed wastes in the total amount of approximately 8.8 million tonnes. The

Group has a waste landfill capacity of 14,265.2 tonnes per day and a faeces disposal capacity of 12.7 tonnes per day. As at 31 December 2020, the Group has 32 public sanitation and solid waste disposal facilities with 17 facilities located in Beijing with a total daily disposal capacity of 15,000 tonnes and 15 facilities located outside Beijing with a total daily disposal capacity of 19,000 tonnes.

- **Environmental services in Beijing:** The Group is responsible for the collection, transportation, classification and detoxification of domestic waste, road mechanical cleaning, road humidifying, dust control, snow cleaning and ice scraping, flood control, removal of illegal advertisements, and environmental sanitation services for important 76 activities and events in urban areas and part of the suburbs of Beijing. In addition, the Group is responsible for cleaning, transporting and disposing domestic waste and faeces in Dongcheng, Xicheng, Fangshan and Pinggu districts of Beijing, as well as cleaning major roads and public places such as Tiananmen Square, the Olympic Park, the Second Ring Road, the Third Ring Road, the Fourth Ring Auxiliary Road, and three other district-crossing freeways.
- **Environmental services outside Beijing:** The Group has expanded its business to 23 provinces and regions covering 67 cities outside Beijing providing services including the collection, transportation, classification and detoxification of domestic waste, road mechanical cleaning and environmental sanitation services for local governments. The Groups acquires its projects through public tenders and enters into concession agreements with the local governments which specifies details including the term of the service, the service contents and standard of services.
- **Equipment manufacturing** – The Group researches, develops, designs, manufactures, sells, repairs and maintains a variety of environmental sanitation equipment through its subsidiary Beijing Environment Sanitation Group Environmental Sanitation Equipment Co., Ltd. (北京环卫集团环卫装备有限公司). The environmental sanitation equipment that the Group manufactures consists of portable leachate disposal equipment, landfill and methane gas utilisation equipment, food waste disposal equipment, faecal disposal equipment, portable toilets and hazardous waste high temperature processing equipment. The environmental sanitation vehicles that the Group manufactures consist of pure electric sweeping and suction trucks, road sweepers, compression refuse collectors, road sprinklers and faecal suction trucks. As at 31 December 2020, the Group had offered three models of environmental sanitation equipment and vehicles.
- **Renewable Resources Development** – The Group’s renewable resources development business converts waste into useful raw materials and products

and energy. As at 31 December 2020, the Group had managed the recycling of over 262,891.4 tonnes of paper at its facilities in Yancheng. In addition, the Group also develops high-carbon organic fertiliser from degradable waste and handles the disposal and treatment of mineralised waste and leachate in municipal solid waste landfills.

1.2 SUSTAINABILITY VISION AND STRATEGY

1.2.1 SUSTAINABLE DEVELOPMENT

Emphasis on low-carbon consumption and sustainable development: In recent years, the environmental sanitation industry and market in China are reshaping, which brings new opportunities for the Group. In 2012, the “Beautiful China Initiative” was first proposed during the 18th CPC National Congress and further elaborated in President Xi Jinping’s Reports to the 19th CPC National Congress, which represents the aspiration and commitment of the Chinese Government to promote green development, solve prominent environmental problems, and intensify the protection of ecosystems. Furthermore, in September 2021, at the General Debate of the 75th Session of the United Nations General Assembly President Xi Jinping introduced China’s 2030 Carbon Emission Peak Concept targeting to reduce carbon emissions after reaching the peak at 2030 and achieving carbon neutrality before 2060. Later in 2021, the 14th Five-Year Plan proposed targets and measures for strengthening energy-saving and carbon reduction. And in the Recommendations for the Formulation of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and the Long-Range Objectives Through the Year 2035, the key aspects of new energy planning involve strengthening the development of strategic emerging industries such as new energy resources and NEVs, accelerating the promotion of low-carbon development, facilitating the safe and efficient use of clean and low-carbon energy, supporting the areas that are well-positioned to reach peak carbon emissions, and formulating an action plan for reaching peak carbon emissions by 2030.

Under this background, the environmental sanitation industry is moving towards industrialisation, market orientation, low-carbonisation, and greenization. The whole industry continues to promote the exploration of comprehensive management mode for solid waste reduction, recycling and detoxification. The Group, based on its steady development in China and by virtue of its strategic leading position and professional strength, is able to benefit from favourable industry dynamics and grasp new development opportunities.

1.2.2 SUSTAINABILITY MANAGEMENT TEAM

The Group has an experienced management team with a deep understanding of the environmental sanitation services industry and a strong commitment to build an internationally competitive integrated environmental service group. The Group believes its success is largely built on the expertise and excellence of its board members and senior management team. The Group's board of directors and senior management team are also commercially-oriented and have proven their ability to capitalise on opportunities to maximise the Group's profitability and improve cost efficiency and synergy. The Group's board of directors and senior management team are dedicated to creating value for the Group with their in-depth understanding of market dynamics, internal training and customer demands. The Group believes the experience and knowledge of its senior management are essential to its success and enable it to seize market opportunities, formulate effective business strategies, evaluate and control risks, implement management plans and enhance profitability.

The Group's professional employees with extensive experience in urban sanitation and waste disposal treatment provided strong support to its management and development. The Group has 521 engineering professionals, including all the professor-level senior engineers and 23.2 per cent. of the senior engineers in Beijing who are specialised in solid waste treatment. By utilising professional skills and industry knowledge, the Group has selectively established its diversified business platforms. Its professional talent lays a solid basis for the Group's development of diversified business platforms and ensures the effective execution of its synergy strategy. As the Group believes that its employees are essential to its business success, it focuses on the selection, hiring and training of talented individuals, with a particular focus on research and development capabilities. Based on the Group's experience, it has formulated comprehensive training courses with standardised procedures in order to continuously improve the skills of its employees.

1.2.3 AWARDS

The table below lists some of the awards and recognitions that the Group has received during recent years:

Awards	Year	Awarded By
Beijing Municipal Outstanding Basic Party Organisation Prize	2020	Party Committee of Beijing Municipal Government
Beijing Municipal Model Group	2020	Beijing Municipal Government
Most Influential Company in Environment and Sanitisation Industry (Rank 1)	2019	E20 Environment Platform

Capital Civilisation Role Model Company	2018	Beijing SASAC
State Science and Technology Improvement Award (Second-class Prize)	2017	State Council of the PRC
Science and Technology Award for Environmental Protection (First-class Prize)	2016	Ministry of Ecology and Environment of the PRC
Science and Technology Improvement Award (Second-class Prize)	2016	Ministry of Education of the PRC
Beijing Science and Technology Award	2012	Beijing Municipal Government – Science and Technology Committee
APEC Summit Certificate of Honour	2014	APEC Preparatory Group
Beijing Advanced Unit Award for Harmonious Labour Relations	2013	Beijing Human Resources and Social Security Bureau; Beijing General Labour Union

2. GREEN FINANCING FRAMEWORK OVERVIEW

As described below, the Group intends to use this amount or an equivalent amount within 36 months to finance or refinance, in whole or in part, one or more of the Group’s new or existing eligible green projects (“Eligible Green Projects”) as defined in this Green Finance Framework (the “Framework”). The Framework has received a “second party opinion” by an independent consultant.

This Framework has been developed to demonstrate how the Group could, with Green Financing Transactions (“GFTs”), fund projects that would deliver positive environmental impacts and foster sustainable practices in support of the Group’s green and sustainability strategy.

GFTs will include bonds, loans and other forms of debt financing with structures tailored to contribute to sustainable development by application of the proceeds to Eligible Green Project Categories as defined in this Framework.

- Bonds issued under the Framework will be aligned with the ICMA Green Bond Principles 2021 (“GBP”) or as they may be subsequently amended;
- Loans issued under the Framework will be aligned to the LMA/APLMA/LSTA Green Loan Principles 2021 (“GLP”) or as they may be subsequently amended;

- Other forms of financing may conform to other well-established green or sustainable finance principles as may have been established at the time.

The Green Bonds are aligned with the core components of GBP and GLP, with GBP being especially relevant to the Eligible Green Projects, which the Group believes will catalyze positive environmental and social benefits. GBP is administered by the International Capital Markets Association (ICMA). GLP is administered by the Loan Market Associate (LMA), the Loan Syndications and Trading Association (LSTA) and the Asia Pacific Loan Market Association (APLMA).

GFTs do not place restriction on the tenor and currency and can include other terms and conditions (including covenants) to reflect the financing strategy and plans of the Group, as well as the outcome of the commercial discussions between the Issuer/Borrower and Manager/Arranger/Lender.

GFTs may be issued in any jurisdiction and market reflecting the Group’s current and future business needs.

For each GFT issued under this Framework, the Group is committed to align with the following elements:

- I. Use of proceeds
- II. Project evaluation and selection
- III. Management of proceeds
- IV. Reporting




The Framework may be updated to ensure continual alignment with market practices, emerging standards and classification systems.



2.1 USE OF PROCEEDS


The net proceeds from any GFT will be used exclusively to finance and/or refinance, in whole or in part, new or existing Eligible Green Projects that meet one or more of the following eligible categories as recognized in the GBP/GLP. Refinancing of Eligible Green Projects will have a look-back period of no longer than 36 months from the time of issuance. The Group will strive to fully allocate the net proceeds of each GFT within 36 months of issuance.

The Eligible Green Project categories (“Eligible Green Project Categories”) that may be utilised under the Framework, together with associated selection criteria (“Eligibility Criteria”) are set out below.

Eligible Green Project Categories	Eligibility Criteria & Examples	UN SDG Mapping
-----------------------------------	---------------------------------	----------------

<p>Renewable Energy; Energy Efficiency</p>	<ul style="list-style-type: none"> • Install renewable energy systems and associated infrastructure; • Recycling of biomass resources and other new energy application and utilization, including but not limited to: <ul style="list-style-type: none"> - Multiple biomass generation projects; • Such projects shall result in at least 10% improvement against the original energy consumption 	 <p>7.1 By 2030, ensure universal access to affordable, reliable and modern energy services</p> <p>7.3: By 2030, double the global rate of improvement in energy efficiency</p> <p>7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support</p>
<p>Pollution Prevention and Control</p>	<ul style="list-style-type: none"> • Waste management and prevention, and recycling, processing and utilization of renewable resources, including but not limited to: <ul style="list-style-type: none"> - Recycled paper projects; - Refuse transfer station construction projects; • Install waste recycling facilities and equipment to reduce environmental pollution; • Providing waste classification services and waste conversion in order to mitigate its environmental impact; • Recycling domestic waste and kitchen waste to reduce solid waste disposal; 	  <p>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</p> <p>12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and</p>

		<p>significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment</p> <p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</p>
<p>Environmentally sustainable management of living natural resources and land use</p>	<ul style="list-style-type: none"> • Develop/redevelop green landscapes that facilitate the preservation or restoration of natural landscapes and enhance the ecological integrity 	 <p>15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world</p> <p>15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems</p>
<p>Sustainable water and wastewater management</p>	<ul style="list-style-type: none"> • Construct, develop, install and operate sustainable infrastructure or equipment for collection, recycling and treatment of water and wastewater, including but not limited to: <ul style="list-style-type: none"> - Sewage treatment facility construction projects • Such as achieving China Integrated wastewater discharge standard (GB8978-1996) - minimum level of 3 	 <p>6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally</p> <p>6.4 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</p>

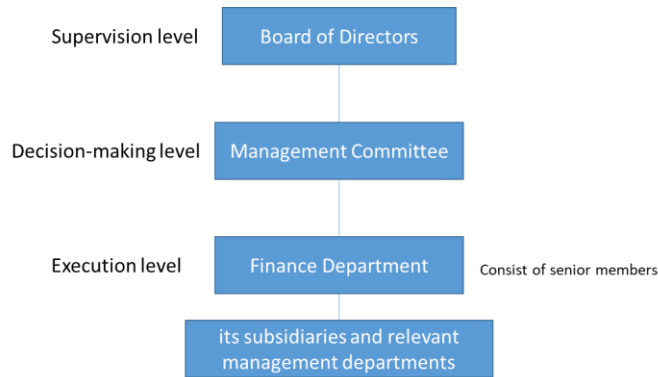
<p>Clean Transportation</p>	<ul style="list-style-type: none"> • Construction and maintenance of Infrastructure for clean energy vehicles <ul style="list-style-type: none"> - electric sanitation vehicles; 	 <p>11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management</p>
-----------------------------	---	--

The following sectors and activities will be excluded from Eligible Green Projects:

- Sectors which are prohibited by laws and regulation in China, such as child labour, gambling industry, adult entertainment and corporations which are in association with illegal activities;
- Nuclear energy;
- Coal based energy generation and distribution infrastructure for such energy; and
- Activities which are in relation to hazardous chemicals and radioactive substance.

2.2 PROJECT EVALUATION AND SELECTION

The Governance Structure of the Framework is a three-tier working mechanism (Figure 1) which is comprised of supervision level, decision-making level and execution level. The Board of Directors is the highest level to set green objectives and oversee all aspects of green and sustainable development. Management Committee comprises of all executive directors of the Group to strengthen the systematic management of green and sustainable development. Finance Department comprises of the senior members with professional skills.



Project Evaluation and Selection

The Eligible Green Projects are identified and selected via a process that involves participants from various functional areas. The Group and its subsidiaries and relevant management departments collect EIA and other information from various entities for review, including but not limited to:

- Beijing Environmental Sanitation Engineering Group Limited (北京环境卫生工程集团有限公司)
- Jiangsu Jinghuan Longheng Paper Co., Ltd (京环隆亨纸业公司)
- Beijing Solid Waste Logistic Co., Ltd (北京固废物流有限公司)
- Beijing Tongzhou Jinghua Environment Service Co., Ltd (北京通州京环环境服务有限公司)
- Beijing Environment Sanitation Group Environment Sanitation Equipment Co., Ltd (北京环卫集团环卫装备有限公司)
- The Group's other relevant management departments, etc.

Finance Department and Management Committee have overall responsibility for implementing the Framework. Senior members have over 10 years' experiences with deep understanding of the environmental sanitation services industry. The main responsibilities include but not limited to ensuring that these Eligible Green Projects comply with the section of Use of Proceeds and updating the process to align the purpose of this Framework relevant to the Group's business activities, and reviewing and approving nominated Eligible Green Projects.

The shortlisted projects will be presented by Finance Department for the approval from Management Committee.

The Group imposes strict environmental and risk management policy during its normal course of business.

EIA as one of risk management tools to identify mitigates to negative social and/or environmental impacts from the relevant projects, if any. The assessment of environmental benefits in the feasibility study of each Eligible Green Project requires an environmental impact assessment (EIA) in accordance with the local requirements of the project. The assessment is carried out by a designated professional body which prepares an EIA report. The results of the assessment include the identification and analysis of the different environmental factors and their impacts on the environment throughout the life cycle, as well as the description of measures needed to reduce the impact on the environment. The unit responsible for the EIA report then submits the EIA report to the local regulatory department, and the project is carried out after approval by the regulatory department is secured.

According to the development of trend of the industry, the Group's strategic planning, annual business goals and other factors, the Group shall systematically and comprehensively formulate annual plans, and regularly conduct project management and control and effectiveness review to maximize benefits.

2.3 MANAGEMENT OF PROCEEDS

Net proceeds of the Green Bonds will be deposited in the Group's general account, which will then be earmarked for allocation to the Eligible Green Projects in accordance with the Framework. Net proceeds of the Green Bonds awaiting allocation will be held in accordance with the Group's normal liquidity management policy. The Group commits not to invest unallocated proceeds to high pollution activities or ineligible projects.

The Group will maintain a register to keep track the use of net proceeds of the Green Bonds through the internal information system on an annual basis.

Type of Funding Transaction: Key information including the issuer/borrower entity, transaction date, principal amount, repayment or amortization profile, maturity date, interest or coupon, and the ISIN number.

Pending full allocation, unallocated proceeds will be:

- held in temporary investment instruments that are asset with high liquidity and safety such as cash or cash equivalent instruments; or
- held in temporary placements that do not include projects, assets or activities that are inconsistent with the nature of a green debt instrument.

If any of the Eligible Green Projects cease to fulfil requirements of Use of Proceeds under the Framework, the Group will identify other projects that comply with the Framework and re-allocate to those assets as soon as is practicable. The balance

of the tracked net proceeds will be on a best effort basis annually adjusted to match allocations to Eligible Green Projects made during the outstanding of the GFT(s).

2.4 REPORTING

The Group will provide information on the allocation of the net proceeds of the Green Bonds on the website or/and in the Group’s CSR Report. Such information will be provided on an annual basis until all the net proceeds of the Green Bonds have been fully allocated.

Allocation Report should contain the following information:

- A list of Eligible Green Projects to which proceeds have been allocated with a brief description, such as energy performance data;
- The aggregate amount allocated to various Eligible Green Projects;
- The remaining balance of funds which have not yet been allocated;
- Share of financing vs. refinancing

Where possible, the Group will report on the environmental impacts associated with the Eligible Green Projects funded with the net proceeds of the GFT(s).

Impact Report should contain but not limited to the following information:

Eligible Categories	Impact Indicators ¹
Energy Efficiency	<ul style="list-style-type: none"> • Annual energy savings (MWh p.a.)
Pollution Prevention and Control	<ul style="list-style-type: none"> • Waste that is prevented, minimized, reused or recycled before and after the project in % of total waste and/or in absolute amount in tonnes p.a. • Waste that is separated and/or collected and treated (including composted) or disposed of in an environmentally sound manner in tonnes p.a. • Amount of waste reused or recycled (tons or in % of total waste)
Environmentally sustainable management of living natural resources and land use	<ul style="list-style-type: none"> • Restored, conserved, cleaned or newly developed green area (in m²) • Cleaning and sanitation in streets with an aggregate area (in m²)

¹ Appropriate environmental and social impact indicators will be determined in reference to frameworks and resources published by ICMA, such as the Harmonized Framework for Impact Reporting June 2021

Sustainable water and wastewater management	<ul style="list-style-type: none">• Annual absolute (gross) amount of raw/untreated sewage sludge that is treated and disposed of in tonnes p.a• Amount of water reused in m³/a
Clean Transportation	<ul style="list-style-type: none">• Number of electric sanitation vehicles

External Review: the Group has engaged S&P Global Ratings, an independent third party, to review and to issue an independent opinion on the Framework's alignment with the GBP and GLP.