



北京控股環境集團有限公司  
BEIJING ENTERPRISES ENVIRONMENT GROUP LIMITED

(Stock Code 154)



2017

Environmental, Social and Governance Report

## ABOUT THE REPORT

Beijing Enterprises Environment Group Limited (the “Group”) is pleased to present the 2017 Environmental, Social and Governance Report (the “Report”). The Report covers our approach and performance in addressing significant environmental, social and governance issues from 1 January 2017 to 31 December 2017.

The Report has been prepared with reference to the “Environmental, Social and Governance Reporting Guide” recommended by The Stock Exchange of Hong Kong Limited (“Hong Kong Stock Exchange”) to all Hong Kong listed companies. A detailed Hong Kong Stock Exchange content index has been appended to the Report for higher transparency and easy reference.

### The Group

“Garbage Siege” has become a headache in urbanisation. The 13th Five-Year Plan for National Environmental Protection shows the government’s determination to promote the development of solid waste treatment. There is still large room for the development of power generation through waste incineration, kitchen waste treatment, and reuse of recycled resources, so solid waste treatment sector is at the prime time for development.

The Group has been committed to implementing strategic transformation to restructure its existing business into the environmental protection and solid waste treatment industry. In March 2016, the Group completed the disposal of its remaining information technology business segment. In complementing the development strategy of the Company and place it in a better position to identify itself as a member of Beijing Enterprises Holdings Limited (“BEHL”, stock code: 392) with focus on the environmental protection industry, the Company has changed its company name to “Beijing Enterprises Environment Group Limited 北京控股環境集團有限公司” with effect from 22 July 2016.

At the end of October 2016, the Group completed the acquisition of five household waste incineration projects and one hazardous and medical waste treatment project from BEHL. These projects are located in major cities or provincial capital of the PRC and have a track record of grate furnace technology and a talented and seasoned management team. The acquisition was a valuable opportunity for the Company to expand its scope of business to include hazardous and medical waste treatment with great potential, and develop the Company into one of the leading companies in solid waste treatment industry in Mainland China.

The Group aims to provide safer and greener ways for waste incineration and has upheld the business concept to “Guarantee the satisfaction of the government and customers, create values for enterprises, pursue win-win cooperation with partners, and bring benefits to employees”, and has been making ceaseless efforts to become a world-leading solid waste treatment operator. To realise the goal, we have benchmarked the production, operation, management, and business philosophy against the advanced international level, and kept improving professionalism, accuracy, standardisation, and delicacy management.



**Projects**

**Household waste incineration projects**

*Acquired in 2014:*

- Shandong Taian Project
- Hunan Changde Project

*Invested in 2014 (in commercial trial operation):*

- Beijing Haidian Project

*Acquired in October 2016:*

- Beijing Gaoantun Project
- Ha'erbin Shuangqi Project
- Jiangsu Zhangjiagang Project
- Jiangsu Shuyang Project
- Hainan Wenchang Project

**Hazardous waste and medical waste treatment project**

*Acquired in October 2016:*

- Hunan Hengxing Project

**Processing capacity**

800 tonnes per day

800 tonnes per day

2,100 tonnes per day

1,600 tonnes per day

1,600 tonnes per day

900 tonnes per day

600 tonnes per day

225 tonnes per day

35,000 tonnes per annum

## ENVIRONMENTAL

The Group has upheld the principle of “applying the most suitable technology to the targeted project”, and come up with optimal solutions to household waste treatment for targeted regions according to their actual demand and features of local waste from an international perspective.

Through enhanced management of environment friendly production, waste treatment plants of the Group have reached the top industrial level in terms of emission, safety and reliability. In 2017, it has been our focus to carry out environmental production review. Acting in accordance with the key implementation plan for energy saving and emission reduction, we have improved the operation efficiency of power units, controlled coal usage ratio, and restricted exhaust gas emission to meet corresponding standards, effectively keeping the total emission within the limit set in line with the environmental impact assessment approval. Ashes and slags are transported to designated landfills for disposal according to government requirements. In particular, slags from Jiangsu Zhangjiagang and Hunan Hengxing Projects are recycled for brick manufacturing, while other project companies are preparing to transport the slags to cement plants for disposal and actively participate in the recycle for manufacturing cement bricks pursuant to the national environmental policy.

The Group abided by “Pollution Control Standards on Incineration of Household Wastes” (GB18485-2014), “Pollution Control Standards on Incineration of Hazardous Waste” (GB18484-2001) and other relevant environmental protection laws and regulations, and continuously improved the burnout rate of solid waste incineration under the premise of stable production operation, and thus truly achieved the purposes of reduction and harmless incineration treatment.

In 2017, Beijing Gaoantun Project adopted a number of energy-saving and emission-reduction measures in accordance with the “Energy Conservation and Emission Reduction Management System” in combination with its actual production operation, such as, the implementation of the frequency conversion operation of the mechanical ventilation tower, and the annual savings of the plant in electricity consumption was about 50,000 kWh. The aerobic tank aeration for leachate treatment system is changed from roots blower to a magnetic levitation blower, which generated an annual saving of about 600,000 kWh in electricity consumption; further refined the management measures in waste quality, garbage storage and drainage equipment to ensure working conditions of incineration to reduce the consumption of combustion-supporting diesel. The Beijing Gaoantun Project applied the water generated from leachate treatment as the make-up to recycling water for use. In 2017, the reclaimed water was saved by about 100,000 tonnes annually. The concentrated water from the leachate treatment was used as replenishing water for slag machine, which saved by about 15,000 tonnes of reclaimed water annually.

Set out below are the operating statistics and emissions of the Group for 2017 and 2016:

	<b>2017</b>	<b>2016</b> <i>(Note)</i>
<b>Operating statistics:</b>		
Power generation	1,022,563,000 kWh	306,687,000 kWh
Waste processing volume	3,338,000 tonnes (including 36,000 tonnes of medical and hazardous waste)	1,050,000 tonnes (including 7,000 tonnes of medical and hazardous waste)
Electricity consumption	194,756,000 kWh	66,164,000 kWh
Water consumption	3,847,000 tonnes	1,343,000 tonnes
Diesel usage	586,000 litres	52,000 litres
Coal usage	106,000 tonnes	59,000 tonnes
<b>Emissions:</b>		
Ash	130,000 tonnes	48,000 tonnes
Slag	555,000 tonnes	126,000 tonnes
SO <sub>2</sub>	187,000kg	35,000kg
NO <sub>x</sub>	1,356,000kg	183,000kg
Exhaust emissions	8,750 million m <sup>3</sup>	1,380 million m <sup>3</sup>

*Note:* Only post acquisition data was accounted for projects acquired during the year.

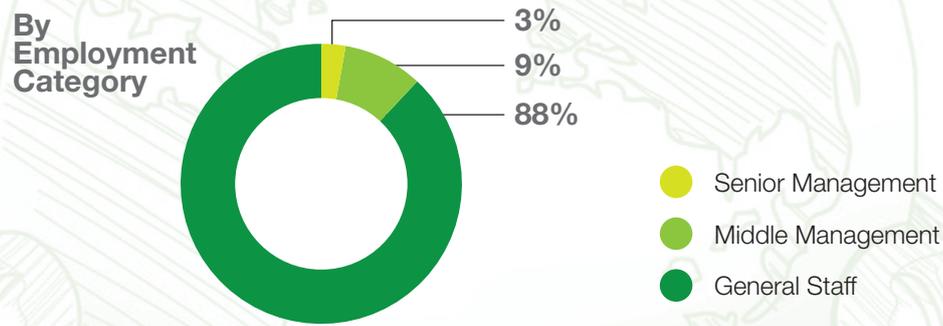
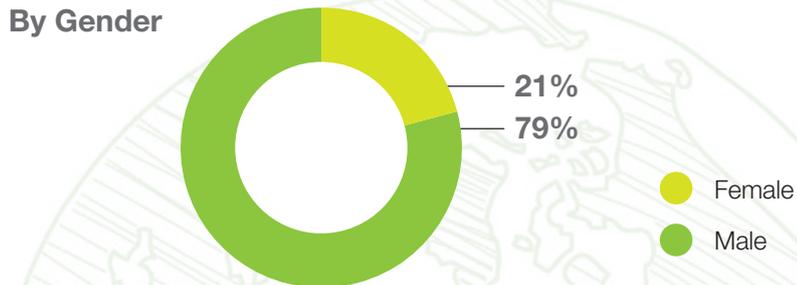
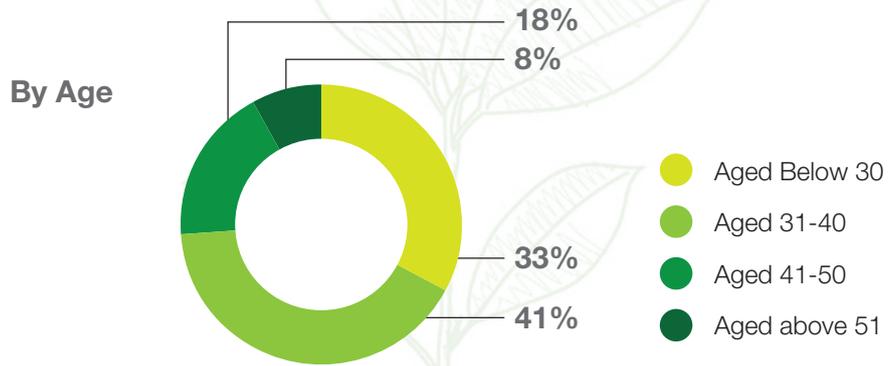
## SOCIAL

### The Group's employees

We aspire to build the Group into a happy and encouraging family, maintain people-oriented, foster harmonious labour relations, and guarantee employees' basic rights. The Group strictly complies with the provisions of labour laws such as the Labour Contract Law, adheres to the principle of fair employment, and prohibits child labour and forced labour. The Group respects employees' cultural backgrounds, guarantee their occupational health, and protects their rights to get time off on public holidays. We have multiple channels to communicate with employees and bring into full play their roles in democratic corporate management.

As at the end of 2017, the Group had 942 employees, including 194 female employees (of which 44 of them held managerial positions). The employee turnover rate was less than 11%. In 2017, the Group had no recorded case of fatality that resulted from working accident and there was no working day lost due to work-related injury.

Number of employees by employment category, age and gender



### Training and development

The Group values employee training and offers training programmes with multiple forms and levels, covering a broad range of contents. Such programmes allow us to train our talents in a targeted manner. In 2017, the Group organised internal and external training courses (including job related, occupational health and safety and other training). Employees received 19,510 hours of training on a person-time basis with an average of 20.7 hours per employee. The Group adheres to the principle of equal pay for equal work regardless of gender. We promote internal talent cultivation, tap into internal human resources and facilitate internal transfer and dissemination of know-how. We also focus on employees' performance and have increased the performance-related pay of key employees.

#### Number of training participants and training hours

	Senior management	Middle management	General staff	Total
Training hours (hour) (Note)				
Occupational health and safety	258	672	11,704	12,634
Work related	120	2,684	2,070	4,874
Other	23	231	1,748	2,002
<hr/>				
Total training hours of employees	401	3,587	15,522	19,510
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Number of staff	30	85	827	942
Average training hours (hour)	13.4	42.2	18.8	20.7

Note: Training hours per session x total number of participants



2017 Yi Xing • Beijing Enterprises Charity Health Walk Event (2017益行•北控慈善健行活動)

### Health and safety

The Group has upheld “safe development”, and adhered to the principle of “putting safety first via early prevention as well as comprehensive rectification”. It has improved the three-level network for safety management, implemented safe production responsibility system, and carried out comprehensive safe production management to uplift the overall on-site management level. With a special focus on safety training, the Group aims to strengthen the safety awareness among all staff. It has also carried out regular, ad hoc and, seasonal equipment debugging and renovating works to eliminate unsafe behaviour of employees, unsafe conditions of objects, and unsafe environmental factors. During the whole year, there have been no major fires, equipment damage, serious injuries, or serious environmental pollution.

In 2017, the four project companies in Shandong Taian, Ha’erbin Shuangqi, Hunan Changde and Jiangsu Shuyang were the safe production standard for power enterprises. Hunan Changde project company was the 2016 Safe Production Advanced Unit of Changde Economic and Technological Development Zone.



Flood prevention work drill

### Anti-corruption and supplier management

Credibility, integrity and honesty are the key elements of our business operation. The employees of the Group handle matters in relation to corruption, conflict of interest and comply with the policy and practices of the Group in a stringent manner. The senior management, middle management, members of the procurement department and finance office have entered into the undertaking of honest practice with the Group.

The suppliers of the Group, which are primarily based in the PRC, mainly supply coal and other raw materials and provide construction services. The distribution model allows us to support and promote local economic development in the course of procurement. For the purpose of enhancing strategic supply chain management, the Group conducts cost analysis on the supply chain every year. In 2017, the largest supplier accounted for 13% of the contract amount, while the top five suppliers accounted for 34% in aggregate.

The Group and its employees did not involve in any corruption lawsuits during the reporting period.

### Community

Apart from the waste-to-energy business, public education is also a crucial part of sustainable development. Hence, the Group regularly organises open days for the public and educational campaigns to promote waste separation.

Beijing Haidian Project, Beijing Gaoantun Project and Harbin Shuangqi Project have actively built seven bases for environmental education, training, production, study and research to publicise and explain the knowledge of waste incineration, guide the public to have a correct understanding of waste incineration, and strengthen the public's awareness in environmental protection. The visitors of nearly 10,000 person-times were visited at Beijing Gaoantun Project annually.

To optimise the regional talent structure and make contribution to the society, Ha'erbin Shuangqi Project Company actively organises visits and internship for college students by utilising existing resources. The cooperation established with a number of universities not only supports talent nurturing for the society, but also enables sharing of resources.

There are over 40 universities in Ha'erbin and students and teachers from 5 of them visited the Ha'erbin Shuangqi project company and worked as interns. Opened to public since 2017, the green promotion and education exhibition hall is equipped with part-time lecturers for explanations, as an important window for visiting groups to understand and promote the harmless waste treatment process. Since the opening of the exhibition hall, in 2017, it has welcomed nearly 1,000 person-times, including leader visiting groups from government agencies, visiting groups in the industry, and internship teams for college students and social visiting groups for visiting and exchange.



Distributing the knowledge manual on domestic waste treatment to the visiting public



Introducing exhibits in Green Exhibition Hall

In pursuit of sustainable school-enterprise collaboration, apart from offering internship to college students, Ha'erbin Shuangqi project company also makes external efforts and holds talks at colleges on request. This new collaboration model invites students to visit the plants while introducing our corporate philosophy and culture in the campus, so that more students and industry peers know about our waste incineration process.

Harbin Shuangqi Project Company, as a key environmental protection enterprise in Harbin, was awarded the titles of "Harbin Ecological Promotion and Education Base" (哈爾濱市生態宣教基地) and "Abandoned Resource Utilisation Education Base" (廢棄資源利用教育基地) by Harbin Environmental Protection Bureau and Harbin Education Bureau for its development in the field of waste incineration in Harbin. It has laid a solid foundation for the comprehensive development of the "Industrial Tourism Base" brand, promotion of communication and collaboration with government departments, enhancement of corporate social influence and awareness, and the long-term development of joint promotion with media. On 30 December 2017, the Ministry of Environmental Protection and the Ministry of Housing and Urban-Rural Development officially announced the list of first batch of environmental protection and sewage treatment facilities opening to the public, including 29 garbage disposal facilities, which are distributed in 27 provinces nationwide, and Harbin Shuangqi Project Company was ranked into the first open list as the only environmentally friendly enterprise in Heilongjiang Province.



Student visits and internship

Appendix: Content index of the Environmental, Social and Governance Reporting Guide of the Listing Rules

SUBJECT AREAS	CONTENT	PAGE NO.
<b>A. Environmental</b>		
<b>Aspect A1: Emissions</b>	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	3
A1.1	The types of emissions and respective emissions data.	4
A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4
A1.5	Description of measures to mitigate emissions and results achieved.	3
A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	3
<b>Aspect A2: Use of Resources</b>	Policies on the efficient use of resources, including energy, water and other raw materials.	3
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	4
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	4
A2.3	Description of energy use efficiency initiatives and results achieved.	3
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	3
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	N/A

SUBJECT AREAS	CONTENT	PAGE NO.
<b>Aspect A3: The Environment and Natural Resources</b>	Policies on minimising the issuer's significant impact on the environment and natural resources.	3
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	3
<b>B. Social</b>		
<b>Employment and Labour Practices</b>		
<b>Aspect B1: Employment</b>	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	4
B1.1	Total workforce by gender, employment type, age group and geographical region.	4-5
B1.2	Employee turnover rate by gender, age group and geographical region.	4
<b>Aspect B2: Health and Safety</b>	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	7
B2.1	Number and rate of work-related fatalities.	4
B2.2	Lost days due to work injury.	4
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	7
<b>Aspect B3: Development and Training</b>	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	6
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	5
B3.2	The average training hours completed per employee by gender and employee category.	5-6

SUBJECT AREAS	CONTENT	PAGE NO.
<b>Aspect B4: Labour Standards</b>	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	4
B4.1	Description of measures to review employment practices to avoid child and forced labour.	4
B4.2	Description of steps taken to eliminate such practices when discovered.	4
<b>Operating Practices</b>		
<b>Aspect B5: Supply Chain Management</b>	Policies on managing environmental and social risks of the supply chain.	7
B5.1	Number of suppliers by geographical region.	7
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	7
<b>Aspect B6: Product Responsibility</b>	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	N/A
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	N/A
B6.2	Number of products and service related complaints received and how they are dealt with.	N/A
B6.3	Description of practices relating to observing and protecting intellectual property rights.	N/A
B6.4	Description of quality assurance process and recall procedures.	N/A
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	N/A

SUBJECT AREAS	CONTENT	PAGE NO.
<b>Aspect B7: Anti-corruption</b>	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	7
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	7
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	7
<b>Community</b>		
<b>Aspect B8: Community Investment</b>	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	8-9
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	8-9
B8.2	Resources contributed (e.g. money or time) to the focus area.	8-9